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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 The Woodlands Hospital (MH The Woodlands). This effort includes two phases: (1) a community health needs 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, select strategies, and identify partners to address these priority issues across the community. This report provides an overview of key findings from MH The Woodlands’ CHNA.

Community Health Needs Assessment Methods
The CHNA 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 27 interviews with community stakeholders. Focus groups and interviews were conducted with individuals from the Greater Houston area and from within MH The Woodlands’ diverse community. The community defined for this CHNA included the cities and towns of Spring, Conroe, Montgomery, Magnolia, Tomball, and Willis within the counties of Harris and Montgomery.

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

Community Social and Economic Context
- **Population Growth and Size:** The total population across the two counties served by MH The Woodlands was 18.2% of Texas’ total population according to the 2010-2014 ACS. Both Harris and Montgomery County have grown between 2005-2009 and 2010-2014 (3.1% increase for Montgomery County and 2.1% increase for Harris County). The Houston metropolitan area, which includes The Woodlands, is projected to increase from 5.9 million in 2010 to 9.3 million in 2030.

- **Age Distribution:** In both Harris and Montgomery Counties, slightly over one quarter of the population was under the age of 18. Montgomery County had a slightly higher senior population than Harris County. In the two largest cities served by MH The Woodlands, a higher proportion of Spring residents were younger (under age 18) while a higher proportion of Conroe residents were seniors.

- **Racial and Ethnic Distribution:** Harris County has greater racial and ethnic diversity among its residents than Montgomery County, where 70% of residents identified as non-Hispanic White. In Harris County, Hispanics comprised 41.1% of the population and 32.6% identified as White, non-Hispanic. Black, non-Hispanic residents comprise 18.5% of the population of Harris County and Asian, non-Hispanics comprised 6.3%. The populations of both Spring and Conroe most closely resembled that of Harris County.

- **Linguistic Diversity and Immigrant Population:** Almost half (42.5%) of Harris County residents spoke a language other than English at home, while 20% of Montgomery County residents did. One quarter of Spring residents and one third of Conroe residents spoke a language other than English at home. A large proportion of the non-English speaking population served by MH The Woodlands speak Spanish or Spanish Creole at home: 80.3% in Harris County and 84.3% in Montgomery County.
One in four residents in Harris County were foreign-born, whereas only 12.9% of Montgomery County residents were foreign-born. The proportion of foreign-born residents was higher in Conroe (21.7%) than in Spring (11.0%) and among the smaller communities served by MH The Woodlands, was highest in Willis (15.5%).

- **Income and Poverty**: The median household income in Montgomery ($67,766) was higher than that in Harris County ($53,137). Spring, which accounted for about 59% of the patient population for MH The Woodlands in 2015, had the highest median household income ($67,469). Median household income in Conroe was $46,025. The percent of adults below the poverty line in 2009-2013 was higher in Harris County (15.1%) compared to Montgomery County (10.5%). The poverty level in Spring was 7.8% and in Conroe, 18% of residents over age 18 live below the poverty line.

- **Employment**: Unemployment rates for Texas and both counties served by MH The Woodlands peaked in 2010 but have decreased consistently over the past five years.

- **Education**: A higher proportion of residents in Harris County (44.8%) than in Montgomery County (38.7%) had a high school degree or less according to the 2009-2013 ACS. A similar proportion had a Bachelor’s degree or higher (about 30%). Conroe had a higher percentage of residents with a high school diploma or less (51.8%) than Spring (40.7%), although the proportion with a Bachelor’s degree or higher was similar (19%).

- **Housing**: The monthly median housing cost for home-owners was similar in both Montgomery and Harris Counties, about $1,200; for renters, costs were slightly higher in Montgomery County ($965) than in Harris County ($880). Housing costs for home-owners was similar in Conroe and Spring ($1,400) and higher for renters in Spring ($1,148) than for renters in Conroe ($850). In both the counties and the two larger cities served by MH The Woodlands, a higher proportion of renters compared to owners paid 35% or more of their household income towards their housing cost.

- **Transportation**: The majority of residents in both counties served by MH The Woodlands commute to work by driving in a car, truck, or van alone.

- **Crime and Violence**: The crime rates for violent and property crimes were substantially higher in Harris County than in Montgomery County. The rates of both violent and property crimes were higher in Conroe than in Montgomery County. Data for Spring are not available.

**Health Outcomes and Behaviors**

**Physical Health**

- **Overall Leading Causes of Death**: Harris County experienced a higher overall mortality rate (737.8 per 100,000 population) in 2013 than Montgomery County (693.3 per 100,000 population). Suicide rates in Montgomery County were higher in 2013 than in Harris County, across all ages except 65-74 years.

- **Overweight and Obesity**: In 2013, 69.4% of Harris County residents reported that they were overweight or obese. (Data is unavailable for Montgomery County.) Nine out of ten (91.7%) Black, Non-Hispanic adult residents in Harris County were considered overweight or obese. Overall, about one-third of Houston high school students was considered overweight (16.3%) or obese (17.9%).

- **Diabetes**: In Harris County in 2014, 10.4% of adults self-reported to have been diagnosed with diabetes. (Data is unavailable for Montgomery County.) Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Montgomery County had 7.3 admissions per 100,000 population.

- **Heart Disease, Stroke, and Cardiovascular Risk Factors**: In 2014, 2.8% of Harris County adults self-reported having been diagnosed with angina or coronary heart disease, and

> “Transportation is a huge issue. It takes so long to commute.”
3.6% of adults in Harris County self-reported having a heart attack during the past year. (Data is unavailable for Montgomery County.) In 2014, 3.8% of Harris County adults self-reported having a stroke during the past year. 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%).

- **Asthma:** In 2013, 4.6% of Harris County adult residents self-reported that they have asthma. (Data is unavailable for Montgomery County.) Among children aged 17 years and younger, the rate of asthma-related hospital discharges for Black children was three times the rate for White children (24.2 versus 10.2 per 100,000 population).

- **Cancer:** Harris and Montgomery Counties had similar age-adjusted cancer incidence rates over the time period 2008-2012: 448.4 per 100,000 population in Montgomery County and 444.1 per 100,000 population in Harris County. Cancer mortality rates for both counties were also similar (164.8 and 163.4 per 100,000 population in Montgomery and Harris, respectively). In a 2014 Behavioral Risk Factor Surveillance System (BRFSS) survey, 81.6% of women 40+ years or older indicated they had had a mammogram in the past two years while 70% of women indicated that they had a pap test in the past three years.

- **HIV and Sexually-Transmitted Diseases:** Harris County experiences the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county, up from 478.4 people per 100,000 population in 2011. Rates of sexually transmitted diseases—chlamydia, gonorrhea, and syphilis—were markedly higher for Harris County compared to Montgomery County.

- **Tuberculosis:** According to the BRFSS, the rate of tuberculosis in Harris County (7.2 per 100,000 population) in 2014 was over five times the rate in Montgomery (1.2 per 100,000 population).

- **Influenza:** In 2014, 35.9% of adults self-reported as having had a seasonal flu shot or vaccine via nose spray, and residents aged 65 years or older were disproportionately more likely to have received a flu shot (59.0%) than other age groups.

- **Oral Health:** Harris County (57.4 per 100,000 population) had a higher rate of dentists than Montgomery County (49.2 per 100,000 population). Hispanic adults in Harris County reported lower rates of annual dental visitation (50.6%).

- **Maternal and Child Health:** Approximately one in ten babies born in Harris and Montgomery Counties are premature. Babies who are Black in the counties are more likely to be born low birthweight than babies of other races/ethnicities. In Montgomery County, the proportion of low birthweight babies is two times higher than babies of other races/ethnicities. Among live births, 56.1% in Harris County and 60.7% in Montgomery County occurred to mothers who received prenatal care in their first trimester. Rates of receiving no prenatal care were 3.9% and 3.1% for Harris and Montgomery County mothers, respectively.

**One in four children in Harris and Montgomery Counties was food insecure in 2013.**

**Health Behaviors**

- **Food Access:** In Montgomery County, 16% of the total population is food insecure while 18% of the total population of Harris County is food insecure. In both counties about a quarter of all children (i.e., those under age 18) are considered to be food insecure. According to the U.S. Department of Agriculture, in 2013 residents of Harris County had greater access to a grocery store (19 grocery stores per 100,000 population) than those in Montgomery County (11 grocery stores per 100,000 population). Conversely, Montgomery County residents in 2012 had higher access to convenience stores (82 convenience stores per 100,000 population) than those in Harris County (55 convenience stores per 100,000 population).
• **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 Montgomery County.) 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 gotten any type of physical activity in the past month, with Hispanics being less likely to report physical activity than other races and ethnicities. (Data is unavailable for Montgomery County.) 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 five days in the past seven days.

**Behavioral Health**

• **Adult Mental Health:** In 2014, 19.3% of adults in Harris County self-reported as having five or more poor mental health days. (Data is unavailable for Montgomery County.) Self-report of having had five or more days of poor mental health was highest among residents aged 18 to 29 (26.5%) and Black residents (24.2%) in Harris County. Rates of psychiatric discharge in 2011 were 3.5 per 1,000 people in Montgomery County and 4.9 per 1,000 people in Harris County.

• **Substance Use and Abuse:** In 2014 13.7% of Harris County adults self-reported binge drinking in the past month, and 13.6% of adults self-reported being current smokers. (Data is unavailable for Montgomery County.) Montgomery County has a higher rate of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (113.3 per 100,000 population) than Harris County (66.9 per 100,000 population).

**Health Care Access and Utilization**

• **Health Insurance:** Uninsurance rates decreased for Montgomery and Harris counties following the passage of the Affordable Care Act in 2010. Harris County had higher rates of uninsurance than Montgomery County during the 2009-2014 period. In 2014, 22.0% of the total population in Harris County was uninsured compared to 14.2% in Montgomery County. In 2013, zip codes in Conroe had the highest rates of uninsurance for the total population. Among the zip codes served by MH The Woodlands, 51,761 residents were enrolled in Medicaid. In Montgomery County, the zip code with the most Medicaid enrollees was 77301 in Conroe (6,776 enrollees). In Harris County, the zip code with the most Medicaid enrollees was 77373 in Spring (7,500 enrollees).

• **Access to Primary Care:** Harris County had a higher proportion of primary care physicians (82.6 per 100,000 population) compared to Montgomery (71.9 per 100,000 population). 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 Montgomery County.) In the Houston-The Woodlands-Sugar Land MSA, 34% of physicians accept all new Medicaid patients, 24% limit their acceptance of new Medicaid patients, and 42% accept 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.)

• **Emergency Department Care at MH The Woodlands for Primary Care Treatable Conditions:** Of MH The Woodlands’ 25,364 ED visits in 2013, 35.6% were from patients who were uninsured or on Medicaid, and 34.3% were classified as non-emergent or with primary care treatable conditions. Of all ER visits, 5.6% were for chronic
conditions of which 29.7% were cardiovascular related. Eight zip codes in the MH The Woodlands’ CHNA-defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH The Woodlands in 2013.

- **Inpatient Care at MH The Woodlands for Ambulatory Care Sensitive Conditions:** Of MH The Woodlands’ 17,081 inpatient discharges in 2015, 7,362 inpatient discharges or 41.4% were related to an ambulatory care sensitive condition. The top three ambulatory care sensitive conditions that resulted in inpatient care at MH The Woodlands in 2015 were diabetes (92 discharges), cellulitis (76 discharges), and kidney or urinary conditions (71 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. 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 does not just occur within neighborhoods, but also within groups sharing a common issue.

- **High-Quality, Plentiful Medical Care:** A key asset identified by key informants and focus group participants was the wide availability of health care services and the high quality of those services, both in Houston and within communities served by MH The Woodlands. The health care system was also described as having a strong community health system in addition to world-class acute care.

- **Strong Public Health and Social Service System:** The communities of MH The Woodlands are served by a robust network of public health and social service organizations. Communities are served by a number of non-profit and other charitable organizations.

- **Strong Schools:** The communities served by MH The Woodlands have strong schools, according to key informants and focus group respondents. 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.

- **Economic Opportunity:** Many key informants and focus group participants reported improvement in the local economy, creating economic opportunities for residents and businesses in the communities served by MH The Woodlands.

**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 The Woodlands, 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.

- **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 The Woodlands. Stakeholders described existing strategies such as community health workers that should be expanded.

- **Expand Access to Behavioral Health Services:** Informants identified behavioral health care access as being a major unmet need in the communities served by MH The Woodlands.

- **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 The Woodlands.
Key Themes and Conclusions

- **Harris County is unique in terms of demographics and population health needs compared to Montgomery County.** While Harris County experiences more challenges in terms of population health than its more suburban neighbor in the MH The Woodlands community, it also has more accessible social and health resources for its residents.

- **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, fewer sidewalks, and more violence are at a disadvantage in the pursuit of healthy living.

- **Although there is economic opportunity for many residents, there are pockets of poverty and some residents face economic challenges which can affect health.** Seniors and members of low-income communities face challenges in accessing care and resources compared to their younger and higher income neighbors. Strategies such as community health workers may increase residents’ access to the 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 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 to be ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, youth).

- **Behavioral health was identified as a key concern among residents.** Stakeholders highlighted unmet needs for mental health and substance abuse services in the communities served by MH The Woodlands, particularly the burden of mental health in the incarcerated population 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.

- **Communities served by MH The Woodlands have many 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 limited public transportation options in some parts of the region. There is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care and behavioral health services as well as actively participate in their communities.
BACKGROUND

About Memorial Hermann Health System
Memorial Hermann Health System (MHHS) is the largest non-profit health care system 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 The Woodlands Hospital
Located north of Houston, Memorial Hermann The Woodlands Hospital (hereafter MH The Woodlands) has been caring for families in south Montgomery County and surrounding communities in north Harris County since 1985. A 294-bed facility, MH The Woodlands is a full-service, acute care facility that brings together the best healthcare technology, clinical expertise, and support for families. The Woodlands has grown to be a nationally recognized, regional medical center offering a broad range of advanced care options. It offers a variety of specialty services including the Chest Pain Center and the Primary Stroke Center, outpatient imaging, an American College of Surgeons accredited cancer program, and pediatric and women’s health care programs. MH The Woodlands is an accredited, Level III trauma center. It is the first and only hospital in Montgomery County to be granted Magnet® status for nursing excellence by the American Nurses Credentialing Center.

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. Each hospital utilized the plan as a guide to improve the health of their community and advance the service mission of the Memorial Hermann organization. The actions taken as a result of the 2013 implementation strategies are identified in Appendix A, Review of 2013 Initiatives. The 2016 CHNA updates the 2013 CHNA and provides additional information about community unmet needs.
Purpose of Community Health Needs Assessment

As a way to ensure that MH The Woodlands 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 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 undertaken to achieve the following overarching goals:

1. To examine the current health status of MH The Woodlands’ 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 The Woodlands, MHHS, and its community partners set programming, funding, and policy priorities

Definition of Community Served for the CHNA

The CHNA process delineated each facility’s community using geographic cut-points based on its main service area. MH The Woodlands defined its community for the CHNA process as the top 75% of zip codes corresponding to inpatient discharges in fiscal year 2015. These selected zip codes correspond to the communities of Spring, Conroe, Montgomery, Magnolia, Tomball, and Willis within the counties of Harris and Montgomery. As shown in TABLE 1, a large majority of MH The Woodlands inpatient discharges in fiscal year 2015 occurred to residents of Montgomery County (73.2%). At a city level, most MH The Woodlands inpatient discharges occurred to residents of Spring (59.2%) followed by Conroe (22.7%). FIGURE 1 presents a map of MH The Woodlands’ CHNA defined community by zip code.

### TABLE 1. NUMBER AND PERCENT OF INPATIENT DISCHARGES REPRESENTING THE TOP 75% OF ZIP CODES SERVED BY MH THE WOODLANDS, BY COUNTY AND CITY, FISCAL YEAR 2015

<table>
<thead>
<tr>
<th>Geography</th>
<th># inpatient discharges</th>
<th>% inpatient discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montgomery County</td>
<td>9,206</td>
<td>73.2%</td>
</tr>
<tr>
<td>Harris County</td>
<td>3,369</td>
<td>26.8%</td>
</tr>
<tr>
<td>Spring</td>
<td>7,442</td>
<td>59.2%</td>
</tr>
<tr>
<td>Conroe</td>
<td>2,854</td>
<td>22.7%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>857</td>
<td>6.8%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>733</td>
<td>5.8%</td>
</tr>
<tr>
<td>Tomball</td>
<td>417</td>
<td>3.3%</td>
</tr>
<tr>
<td>Willis</td>
<td>272</td>
<td>2.2%</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 75% of zip codes served
FIGURE 1. NUMBER OF INPATIENT DISCHARGES REPRESENTING THE TOP 75% OF ZIP CODES SERVED BY MH THE WOODLANDS, BY ZIP CODE, FISCAL YEAR 2015

Zip codes
77386, 77381, 77380, 77373, 77385, 77388, 77354, 77389, 77379, 77382, 77384, 77356, 77304, 77301, 77302, 77375, 77316, 77303, 77318

Cities and towns
Spring, Conroe, Montgomery, Magnolia, Tomball, and Willis

Counties
Montgomery and Harris

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 The Woodlands’ 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 CHNA 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 The Woodlands’ 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 27 key informant discussions were conducted with individuals from MH The Woodlands’ community from October 2015 through February 2016. Focus groups were held with 93 community residents drawn from the Greater Houston community. With the exception of seniors (65 years or older) for which two focus groups were conducted, one focus group was conducted for each of 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 (conducted in Spanish)
- English-speaking Hispanic community members
- Asian 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-seven key informant discussions were conducted with individuals representing the MH The Woodlands 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 (e.g., low-
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 The Woodlands 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 The Woodlands. Key informants were recruited by HRiA, working from recommendations provided by MHHS and MH The Woodlands.

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 The Woodlands 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 The Woodlands’ 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) survey and the Texas Behavioral Risk Factor Surveillance System, should be interpreted with particular caution. In some instances, respondents may over- or under-report 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 The Woodlands 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 community served by MH The Woodlands, including the parks and recreational sites, the neighborhoods, and the diversity of the population. The region served by MH The Woodlands is part of the Houston-The Woodlands-Sugar Land metropolitan area and includes Conroe, the seat of Montgomery County, and the area of Spring, which includes the town of Spring and other smaller communities. The region also includes the master-planned community of The Woodlands which was built in 1974. The region boasts lovely natural assets including wooded areas and Lake Conroe. As it is located close to a metropolitan area as large as Houston, the region continues to grow and attract new residents, including Hispanic immigrants and those who work for the many international corporations headquartered in Houston.

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 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 The Woodlands community has witnessed 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 The Woodlands 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 The Woodlands community.

Population Size and Growth
According to the American Community Survey (ACS), the Texas population has 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 two counties served by MH The Woodlands was 4,756,636 based on 2010-2014 ACS estimates, which was 18.2% of Texas’ total population. Between the time periods 2005-2010 and 2010-2014, the population in Harris County increased by 2.1% while in Montgomery County it increased by 3.1%. Conroe (population: 61,268) is the most populous city in the two counties served by MH The Woodlands, while Spring is the second most populous (population: 54,992). Residents of these two cities comprised 81.9% of patients who were discharged from MH The Woodlands in 2015. Both Spring and Conroe experienced over 15% population growth between 2005-2010 and 2010-2014. Population growth among the smaller communities served by MH The Woodlands varied. Montgomery and Magnolia experienced a population decline from 2005-2010 to 2010-2014 while Tomball and Willis experienced a population increase. Notably, the population of Willis increased by 38.0% over this time 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>Harris County</td>
<td>4,182,285</td>
<td>4,269,608</td>
<td>2.1%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>472,162</td>
<td>487,028</td>
<td>3.1%</td>
</tr>
<tr>
<td>Spring</td>
<td>47,541</td>
<td>54,992</td>
<td>15.7%</td>
</tr>
<tr>
<td>Conroe</td>
<td>52,500</td>
<td>61,268</td>
<td>16.7%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>1,713</td>
<td>1,428</td>
<td>-16.6%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>674</td>
<td>639</td>
<td>-5.2%</td>
</tr>
<tr>
<td>Tomball</td>
<td>10,191</td>
<td>11,030</td>
<td>8.2%</td>
</tr>
<tr>
<td>Willis</td>
<td>4,385</td>
<td>6,052</td>
<td>38.0%</td>
</tr>
</tbody>
</table>


Focus group participants and key informants reported that the areas served by MH The Woodlands are experiencing rapid population growth, a trend that makes the region stand out nationally. Focus group members and interviewees pointed to development and sprawl as well as busy roads. Population growth was attributed to growing
numbers of immigrants settling in the area as well as higher income people coming for jobs. Several interviewees noted that rapid population growth has created challenges for the infrastructure in the region. As one provider shared, \textit{“we have a positive growth in our community, but this growth is also a strain on the health and social service system.”}\hfill

Rapid population growth in the Greater Houston area is a trend likely to continue well beyond this decade. The Houston metropolitan area, which includes the region served by MH The Woodlands, is projected to increase from 5.9 million in 2010 to 9.3 million in 2030 (FIGURE 3).

\textbf{FIGURE 3. PROJECTED TOTAL POPULATION IN MILLIONS, GREATER HOUSTON METROPOLITAN AREA,* 2010-2030}

\begin{center}
\begin{tabular}{c|c|c|c|c|c}
\hline
4.7 & 5.9 & 6.6 & 7.4 & 8.3 & 9.3 \\
\end{tabular}
\end{center}

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

\textbf{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, which includes Harris and Fort Bend Counties but not Wharton County

\textit{“My neighborhood is diverse in terms of age. There are some seniors, but also a lot of working young people.”}  

\textbf{Focus group participant}

\textbf{Age Distribution}

The age distribution of the population shapes the social and health care needs of the community. The communities served by MH The Woodlands are diverse in terms of age. Focus group members and interviewees described their communities as a mix of age groups, with seniors, young families, and middle age persons.

FIGURE 4 shows ACS age distribution data of MH The Woodlands’ community at the county and city levels from 2009 to 2013. In both counties, approximately 27% of the population was under the age of 18. Montgomery County had a slightly higher proportion of residents over age 65 (10.9%) than Harris County (8.5%). The two larger cities served by MH The Woodlands differed somewhat in the age of the population. A higher proportion of the population in Spring (30.5%) than in Conroe (27.6%) was under the age of 18, while a higher proportion of the population in Conroe (9.9%) than in Spring (6.8%) was over the age of 65. In the smaller towns, Montgomery (36.3%) had the youngest population while Tomball (19.0%) had the highest proportion of people 65 years of age and older.
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 diversity of the population served by MH The Woodlands in terms of racial and ethnic composition. Focus group participants and key informants frequently described the racial and ethnic distribution of their communities as diverse, although as one focus group member noted, “diversity depends on the neighborhood.” Latinos comprise the largest minority population group in the region and were described as including both long-standing residents and more recent arrivals. Respondents generally viewed diversity as a substantial strength, although they noted that some groups face challenges including language isolation and cultural and other barriers to accessing health and social services. Several reported a growth in the number of undocumented people in the region who were described as particularly vulnerable. As a key informant explained, “lack of options for immigrants is a big issue that is hard to quantify.”

Montgomery and Harris counties differ in terms of racial and ethnic diversity. Montgomery County was predominantly comprised of residents who self-reported their racial and ethnic identity as White, non-Hispanic (70.5%); Hispanics of any race comprised 21.2% of the County’s population. Non-Hispanic Black and Asian residents made up a far smaller proportion of the population, 4.1% and 2.3%, respectively. This contrasts with Harris County where Hispanics comprised 41.1% of the population and non-Hispanic Whites were 32.6% of the population. In Harris County a far larger proportion of the population identified as Black, non-Hispanic (18.5%). Asian, non-Hispanic comprised 6.3% of the population. The populations of Spring and Conroe more closely resembled that of Harris County. White, non-Hispanics in both towns comprised slightly less than half the populations in these cities (Spring: 44.6% and Conroe: 49.7%). Hispanics represented a larger proportion of the population of Conroe (37.7%) than Spring (28.6%) while Black, non-Hispanics represented a larger proportion of the population of Spring (20.8%) than Conroe (10.8%). Asian, non-Hispanics comprised 3.8% of the population of Spring and only 0.9% of the population of Conroe. Among the smaller towns The Woodlands serves, there was substantially greater racial and ethnic diversity in the towns of Montgomery and Willis than in Magnolia and Tomball. FIGURE 5 illustrates the racial and ethnic distribution of MH The Woodlands’ communities.

FIGURE 4. AGE DISTRIBUTION, BY COUNTY AND CITY, 2009-2013

<table>
<thead>
<tr>
<th></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>Montgomery County</td>
<td>27.4%</td>
<td>8.2%</td>
<td>26.8%</td>
<td>26.6%</td>
<td>10.9%</td>
</tr>
<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>Spring</td>
<td>30.5%</td>
<td>8.3%</td>
<td>30.8%</td>
<td>23.5%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Conroe</td>
<td>27.6%</td>
<td>10.8%</td>
<td>31.1%</td>
<td>20.8%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>36.3%</td>
<td>3.0%</td>
<td>26.3%</td>
<td>27.6%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>27.3%</td>
<td>7.1%</td>
<td>26.5%</td>
<td>24.8%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Tomball</td>
<td>26.5%</td>
<td>8.9%</td>
<td>23.4%</td>
<td>22.2%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Willis</td>
<td>32.8%</td>
<td>8.9%</td>
<td>27.8%</td>
<td>18.3%</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

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

“We are very diverse in many ways...in terms of race, ethnicity, and socioeconomic status.”

Key informant interviewee
<table>
<thead>
<tr>
<th></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>Montgomery County</td>
<td>21.2%</td>
<td>4.1%</td>
<td>2.3%</td>
<td>70.5%</td>
<td>1.9%</td>
</tr>
<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>Spring</td>
<td>28.6%</td>
<td>20.8%</td>
<td>3.8%</td>
<td>44.6%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Conroe</td>
<td>37.7%</td>
<td>10.8%</td>
<td>0.9%</td>
<td>49.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>10.1%</td>
<td>51.1%</td>
<td>0.0%</td>
<td>37.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>9.1%</td>
<td>10.3%</td>
<td>3.5%</td>
<td>73.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Tomball</td>
<td>16.0%</td>
<td>10.8%</td>
<td>2.9%</td>
<td>68.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Willis</td>
<td>40.6%</td>
<td>22.1%</td>
<td>0.0%</td>
<td>33.9%</td>
<td>3.4%</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.

MH The Woodlands serves a community that speaks languages other than English. According to the 2009-2013 ACS, almost half (42.5%) of Harris County residents spoke a language other than English at home while less than 20% of those in Montgomery did (FIGURE 6). In the larger communities served by MH The Woodlands, one quarter of Spring residents and one third of Conroe residents spoke a language other than English at home. Fewer non-English speakers resided in the smaller communities of Montgomery, Magnolia, and Tomball but over 25% of residents of Willis residents spoke a language other than English at home.

FIGURE 7 shows the top five non-English languages spoken by County. A large proportion of the non-English speaking population served by MH The Woodlands speak Spanish or Spanish Creole at home: 80.3% in Harris County and 84.3% in Montgomery County. Spanish was the language spoken predominantly in each of the communities served by MH The Woodlands: over 80% of the non-English speaking population in communities served by MH The Woodlands spoke Spanish or Spanish Creole at home. About 7% of the non-English speaking population in Harris County spoke Vietnamese or Chinese; a smaller proportion of non-English speaking residents in Montgomery County spoke an Asian language.
Immigration is a major part of the identity of the Greater Houston metropolitan area. Between 2000 and 2013, Houston’s immigrant population grew nearly twice the national rate: 59% versus 33% (A Profile of Immigrants in Houston, 2015). The area’s two largest established immigrants groups originate from Mexico and Vietnam, whereas the newest immigrant originate from Guatamala and Honduras. Informants universally described the MH Southwest community as a collection of immigrants from both within and outside of the United States. As pointed out by one focus group participant: “People are from all over. You see it on the playground... We have one neighbor from Norway and Venezuela. The other is from Scotland.” These qualitative observations are reflected in demographics of the MH The Woodlands community. One in four residents in Harris County were foreign-born, whereas only 12.9% of Montgomery County residents were foreign-born (FIGURE 8). The proportion of foreign-born residents was higher in Conroe (21.7%) than in Spring (11.0%) and among the smaller communities served by MH The Woodlands, was highest in Willis (15.5%).
Income and Poverty

Income and poverty status have the potential to impact health in a variety of ways. A higher income makes it easier to live in a safe neighborhood with good schools and many recreational opportunities and higher wage earners are better able to buy health insurance and medical care and nutritious foods. For lower income earners 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 is a barrier to accessing goods and services.

Focus group participants and key informant interviewees alike reported that the region served by MH The Woodlands includes both wealthier and lower income individuals. As one person described, “we do have some fairly affluent areas but there are many pockets where residents live below the poverty line.” Although the cost of living was reported to be lower in the region than in the city of Houston, some residents still struggle. Respondents noted the large number of children in schools receiving free and reduced lunch, seniors who live on fixed incomes, and a growing number of immigrants who face challenges integrating into the local economy. For example, a senior focus group participant shared, “But at end of day, if you are on fixed income, do you choose to pay for insurance or pay for food for your family?” At the same time, several interviewees mentioned that the recent downturn in oil prices has negatively affected some residents who were previously more economically secure. As one interviewee noted, “many folks are getting laid off and relying on public benefits; this means more families who need help.”

The impact of poverty on health was noted by several respondents who pointed to the difficulty lower income residents face in obtaining health insurance, paying for health care, and in taking care of themselves and getting to healthcare. A focus group member highlighted how these choices affect both individuals and the larger health care system: “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 shows that the median household income in Montgomery ($67,766) was higher than that in Harris County ($53,137) (FIGURE 9). Income varied substantially by town. Spring, which accounted for about 59% of the patient population for MH The Woodlands in 2015, had the highest median household income ($67,469). Median household income in Conroe was $46,025, similar to that in both Magnolia and Tomball. The median household
income in Willis was $25,608, substantially lower than household income in the other communities. As shown in FIGURE 10, there was substantial variation in poverty levels among adults residing in zip code areas in the CHNA-defined MH The Woodlands community. Zip code 77301, which is in Conroe, had the highest percentage of adults below the poverty level (29.5%); in the same community of Conroe, the zip code of 77384 had the lowest percentage of adults below the poverty level (2.8%).

### FIGURE 9. MEDIAN HOUSEHOLD INCOME, BY COUNTY AND CITY, 2009-2013

<table>
<thead>
<tr>
<th>City</th>
<th>Median Household Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montgomery</td>
<td>$67,766</td>
</tr>
<tr>
<td>Harris</td>
<td>$53,137</td>
</tr>
<tr>
<td>Spring</td>
<td>$67,469</td>
</tr>
<tr>
<td>Conroe</td>
<td>$46,025</td>
</tr>
<tr>
<td>Montgomery</td>
<td>$64,063</td>
</tr>
<tr>
<td>Magnolia</td>
<td>$42,188</td>
</tr>
<tr>
<td>Tomball</td>
<td>$41,644</td>
</tr>
<tr>
<td>Willis</td>
<td>$26,608</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
FIGURE 10. PERCENT OF 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, 2010-2014
Employment
Employment status also can have an impact on one’s health by, for example, shaping income and access to health care. Many key informant interviewees reported that the economic outlook for the region was positive overall. However, several noted that the recent decrease in oil prices has had a negative impact on employment and expressed concern if prices continue to stay low. Other respondents expressed concern about low-wage workers—those who work multiple jobs, are often undocumented, and most often have no health insurance. As one key informant explained, “there [is] a low rate of unemployment but a high rate of uninsured.”

Over the past decade, unemployment rates peaked in 2010 in both Montgomery and Harris Counties, mirroring the statewide trend. Unemployment rates for Texas and the two counties served by MH The Woodlands have been decreasing since the 2010 peak (FIGURE 11).

FIGURE 11. TRENDS IN UNEMPLOYMENT RATE, BY COUNTY AND STATE, 2005-2014

![Graph showing trends in unemployment rate from 2005 to 2014 for Montgomery County, Harris County, and Texas. The graph indicates a peak in 2010 followed by a decline since then.]

Education

Educational attainment is associated with income, and higher educational achievement is linked with greater health literacy. Overall, residents reported that the schools in the region were excellent. As one informant explained, “A few respondents observed, however, that educational quality and opportunity for students varied across the region. As one interviewee shared, “Our kids don’t have as many benefits as others have. People are shocked when they hear this. A lot of the people I encounter are affluent. They look around and they see The Woodlands.”

Of the two counties served by MH The Woodlands, a higher proportion of residents in Harris County (44.8%) than in Montgomery County (38.6%) had a high school degree or less according to the 2009-2013 ACS. A similar proportion had a Bachelor’s degree or higher (about 30%). Among the larger municipalities served by MH The Woodlands, Conroe had a higher percentage of residents with a high school diploma or less (51.8%) than Spring (40.7%), although the proportion with a Bachelor’s degree or higher was similar (19%) (FIGURE 12). Among the smaller communities, the proportion of residents 25 and older with a high school diploma or less was highest in Willis (72.4%), which also had the lowest proportion of residents with a Bachelor’s degree or higher (8.0%).

FIGURE 12. EDUCATIONAL ATTAINMENT OF POPULATION 25 YEARS AND OVER, BY COUNTY AND CITY, 2009-2013

<table>
<thead>
<tr>
<th>Montgomery County</th>
<th>13.7%</th>
<th>24.9%</th>
<th>30.6%</th>
<th>30.7%</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>Spring</td>
<td>10.3%</td>
<td>30.4%</td>
<td>39.5%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Conroe</td>
<td>24.5%</td>
<td>27.3%</td>
<td>28.9%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>15.3%</td>
<td>34.6%</td>
<td>34.2%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Tomball</td>
<td>13.6%</td>
<td>34.1%</td>
<td>28.0%</td>
<td>24.4%</td>
</tr>
<tr>
<td>Willis</td>
<td>35.1%</td>
<td>37.3%</td>
<td>19.7%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

| Less than HS Graduate | HS Graduate/GED | Some College/Associate's Degree | Bachelor's Degree or Higher |

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. Additionally, poor quality housing structures, which may contain hazards such as lead paint, asbestos, and mold, may also trigger certain health issues such as asthma. Perspectives on the cost of housing in the region varied across informants. Some reported that housing prices were reasonable while others expressed concern about housing being unavailable or unaffordable, especially for some segments of the population. One key informant indicated that there was insufficient housing for the disabled: “People with physical disabilities often have trouble finding shelter.” Another segment identified as being at risk for housing insecurity was seniors. One focus group participant described how this issue affected her: “The rent keeps going up. I’m trying to get into a senior home. I have to wait two years.” A couple of respondents reported that among minority populations, multi-generational families living together is more common but can contribute to overcrowding.

The monthly median housing cost for owners was similar in both Montgomery and Harris Counties, about $1,200; for renters, costs were slightly higher in Montgomery County ($965) than in Harris County ($880) (data not shown). Housing costs for owners was similar in Conroe and Spring ($1,400) and higher for renters in Spring ($1,148) than for renters in Conroe ($850). In both the counties and the two larger cities served by MH The Woodlands, a higher proportion of renters compared to owners paid 35% or more of their household income towards their housing costs (FIGURE 13). Among the smaller towns, with the exception of Montgomery, a higher percent of renters compared to owners paid 35% or more of their household income towards their housing costs.

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. Residents reported that private cars are the prominent means of transportation in the region and those who do not have cars, most notably seniors and low-income residents, face substantial transportation challenges. Providers reported that transportation challenges are among the greatest barriers low-income patients face in accessing health care. As one interviewee explained, “Transportation will always be the

“We don’t have a public transportation program in our county (Montgomery). So if you don’t have a friend or own a car, you’re out of luck.”

Key informant interviewee
biggest challenge, particularly for those with low SES [socioeconomic status].” Although reported to be changing, the region does not have many public transportation options. Residents reported that Houston Transit operates a few services in the region, including bus and limited metro service. One interviewee shared that a bus goes through Conroe but the route is not extensive. Additionally, several reported that there are transportation options for disabled persons and seniors and a limited number of programs that offer transportation vouchers. Residents who use public transit options reported extensive wait times for services, long distances to bus stops, requirements that rides be scheduled far in advance, and long travel times.

A related transportation issue raised by focus group members and interviewees is long commuting times. Some respondents reported commutes of several hours per day. A number of respondents connected long commuting times to health, such as one who shared, “When you think about it, three hours commuting a day can take a toll on other things. Like do I have time to go to the grocery store? Do I have time to exercise?”

When asked about active transportation options such as walking and biking, many respondents stated that concerns about safety, in addition to distances, presented barriers.

For some, the hot climate presented an additional challenge for active transportation. Many communities do not have sidewalks, although this was reported to be changing; new projects to build sidewalks in Conroe was mentioned by one respondent. The region does not have bike paths and this creates safety issues for bicyclists. As a low-income member of a focus group stated, “I am afraid to get a bike because you can keep going and you’re going to get hit. There are so many hit and runs.” Some attributed the lack of public and active transportation options to public attitudes. As one interviewee explained, “In Texas, people feel like they need their cars....public transportation is viewed as something that would lower property value.”

As reflected in the focus groups and interviews, a majority of residents in the three counties served by MH The Woodlands commuted to work by driving in a car, truck or van alone (FIGURE 14). Among all municipalities, Montgomery had the highest percentage of workers who commuted by public transportation (6.0%), a rate substantially higher than that in the larger towns of Spring (1.6%) and Conroe (1.0%).

FIGURE 14. MEANS OF TRANSPORTATION TO WORK, BY COUNTY AND CITY, 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>Montgomery County</td>
<td>1.3%</td>
<td>79.1%</td>
<td>11.8%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Harris County</td>
<td>2.9%</td>
<td>78.6%</td>
<td>11.7%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Spring</td>
<td>1.6%</td>
<td>84.0%</td>
<td>9.4%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Conroe</td>
<td>1.0%</td>
<td>71.7%</td>
<td>19.5%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>6.0%</td>
<td>67.0%</td>
<td>22.2%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Magnolia</td>
<td>0.0%</td>
<td>78.0%</td>
<td>12.2%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Tomball</td>
<td>0.3%</td>
<td>76.1%</td>
<td>12.7%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Willis</td>
<td>0.0%</td>
<td>70.4%</td>
<td>26.3%</td>
<td>3.2%</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 one lives. According to informants, types of crime vary across the communities served by MH The Woodlands. Personal safety while exercising and children playing outside was a concern expressed by several respondents. As one interviewee shared, “Even in the Woodlands where there are a lot of walking trails, people are uncomfortable walking there because the trails are hidden and covered by trees.” Focus group participants and key informant interviewees did not specifically name bullying in schools or cyber bullying as major issues in their communities.

According to the 2014 Texas Crime Report, the crime rates for violent and property crimes were substantially higher in Harris County than in Montgomery County (TABLE 3). In 2014, the rates of both violent and property crimes were higher in Conroe than in Montgomery County. Among the smaller municipalities served by MH The Woodlands, the violent crime rate was highest in Willis (620.2 offenses per 100,000 population). The property crime rate was highest in Tomball (4,717.3 offenses 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>Montgomery County</td>
<td>147.3</td>
<td>1,622.8</td>
</tr>
<tr>
<td>Harris County</td>
<td>691.4</td>
<td>3,825.0</td>
</tr>
<tr>
<td>Conroe</td>
<td>287.1</td>
<td>3,424.5</td>
</tr>
<tr>
<td>Montgomery</td>
<td>435.4</td>
<td>3,338.2</td>
</tr>
<tr>
<td>Magnolia</td>
<td>0.0</td>
<td>2,772.5</td>
</tr>
<tr>
<td>Tomball</td>
<td>312.1</td>
<td>4,717.3</td>
</tr>
<tr>
<td>Willis</td>
<td>620.2</td>
<td>2,823.6</td>
</tr>
</tbody>
</table>

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

NOTE: Violent crime includes murder, robbery, and assault; and property crime includes burglary, larceny, and auto theft; City data reported by city agency; Data not available for Spring.
HEALTH OUTCOMES AND BEHAVIORS

People who reside in the communities served by MH The Woodlands experience a broad range of health outcomes and exhibit health behaviors that reflect their socioeconomic status and the built environment around them. Many of the demographic factors described previously such as population growth, lack of public transportation, and crime all have a role on population health, including mortality chronic disease, behavioral health, communicable disease, and oral health, among other issues. Focus group participants and key informants representing the MH The Woodlands community described a high burden of chronic disease, diabetes and heart disease. Poor access to food in some communities is 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 The Woodlands.

Overall Leading Causes of Death

Mortality statistics provide insights into the most common causes of death in a community. This type of information can be helpful for planning programs and policies targeted at leading causes of death. According to the Texas Department of State Health Services, of the two counties served by MH The Woodlands, Harris County experienced a higher overall mortality rate (737.8 per 100,000 population) in 2013 than Montgomery County (693.3 per 100,000 population) (data not shown). Heart disease death rates were slightly more prevalent in Harris County than in Montgomery while cancer mortality rates were similar (FIGURE 15). The death rate due to stroke, however, was higher in Harris County (40.6 per 100,000 population) than in Montgomery (29.6 per 100,000 population). Deaths due to chronic lower respiratory infections were higher in Montgomery than in Harris County. TABLE 4 presents the leading causes of death by age and county in 2013.

FIGURE 15. LEADING CAUSES OF DEATH PER 100,000 POPULATION, BY COUNTY, 2013

<table>
<thead>
<tr>
<th></th>
<th>Montgomery County</th>
<th>Harris County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>154.1</td>
<td>166.3</td>
</tr>
<tr>
<td>Cancer (All)</td>
<td>160.6</td>
<td>159.9</td>
</tr>
<tr>
<td>Stroke</td>
<td>29.6</td>
<td>40.6</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease</td>
<td>50.3</td>
<td>32.0</td>
</tr>
<tr>
<td>Accidents</td>
<td>30.3</td>
<td>36.8</td>
</tr>
</tbody>
</table>

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

NOTE: Age-adjusted mortality rate per 100,000 population
TABLE 4. LEADING CAUSES OF DEATH, MORTALITY RATE PER 100,000 POPULATION, BY AGE AND COUNTY, 2013

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Cause</th>
<th>Montgomery County</th>
<th>Harris County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 year</td>
<td>Certain Conditions Originating in the Perinatal Period</td>
<td>123.5</td>
<td>347.5</td>
</tr>
<tr>
<td></td>
<td>Congenital Malformations, Deformations and Chromosomal Abnormalities</td>
<td>154.4</td>
<td>133.9</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>-</td>
<td>19.9</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>-</td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>Septicemia</td>
<td>-</td>
<td>8.5</td>
</tr>
<tr>
<td>1-4 years</td>
<td>Cancer</td>
<td>-</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>19.8</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Congenital Malformations, Deformations and Chromosomal Abnormalities</td>
<td>-</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>-</td>
<td>1.9</td>
</tr>
<tr>
<td>5-14 years</td>
<td>Cancer</td>
<td>-</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>-</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Chronic Lower Respiratory Diseases</td>
<td>-</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>-</td>
<td>0.8</td>
</tr>
<tr>
<td>15-24 years</td>
<td>Accidents</td>
<td>21.7</td>
<td>24.1</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>7.8</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>15.5</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
<td>-</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>-</td>
<td>2.3</td>
</tr>
<tr>
<td>25-34 years</td>
<td>Accidents</td>
<td>23.1</td>
<td>24.7</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>-</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
<td>13.2</td>
<td>11.2</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>28.1</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>-</td>
<td>5.9</td>
</tr>
<tr>
<td>35-44 years</td>
<td>Cancer</td>
<td>33.5</td>
<td>29.3</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>36.3</td>
<td>28.2</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>13.9</td>
<td>19.3</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>19.5</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>Homicide</td>
<td>-</td>
<td>9.8</td>
</tr>
<tr>
<td>45-54 years</td>
<td>Cancer</td>
<td>86.6</td>
<td>95.5</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>60.5</td>
<td>82.2</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>37.1</td>
<td>42.5</td>
</tr>
<tr>
<td></td>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>17.9</td>
<td>22.1</td>
</tr>
<tr>
<td></td>
<td>Suicide</td>
<td>16.5</td>
<td>15.7</td>
</tr>
<tr>
<td>55-64 years</td>
<td>Cancer</td>
<td>286.5</td>
<td>273.3</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>173.5</td>
<td>194.8</td>
</tr>
<tr>
<td></td>
<td>Accidents</td>
<td>37.7</td>
<td>49.7</td>
</tr>
<tr>
<td></td>
<td>Stroke</td>
<td>37.7</td>
<td>39.5</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>32.7</td>
<td>38.2</td>
</tr>
<tr>
<td>65-74 years</td>
<td>Cancer</td>
<td>558.4</td>
<td>618.1</td>
</tr>
<tr>
<td></td>
<td>Heart Disease</td>
<td>383.1</td>
<td>419.8</td>
</tr>
<tr>
<td></td>
<td>Chronic Lower Respiratory Diseases</td>
<td>178.1</td>
<td>97.9</td>
</tr>
<tr>
<td></td>
<td>Stroke</td>
<td>62.0</td>
<td>92.0</td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>*</td>
<td>71.0</td>
</tr>
<tr>
<td>65-74 years</td>
<td>Nephritis, Nephrotic Syndrome, and Nephrosis</td>
<td>62.0</td>
<td>*</td>
</tr>
</tbody>
</table>
Suicide rates in Montgomery County were higher in 2013 than in Harris County, across all ages except 65-74 years. The suicide rate among younger people was higher in Montgomery County than Harris County. The suicide rate for people ages 25-35 in Montgomery County (28.1 per 100,000 population) was over twice as high as among adults of this age in Harris County (10.5 per 100,000 population) and the suicide rate for those ages 15-24 was almost twice as high in Montgomery County as in Harris County. In both counties, the suicide rate for seniors was the highest of that across all age groups (FIGURE 16).

FIGURE 16. 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 like overweight and obesity, heart disease, diabetes, cancer, and asthma. 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. Risk factors for chronic diseases like overweight and obesity, heart disease, diabetes, cancer, and asthma include diet and exercise as well as genetics and stress. 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
Rates of food insecurity were similar in 2013 for the total population in the two counties served by MH The Woodlands, and children are more likely to be food insecure than adults. In Montgomery County, 16% of the total population is food insecure while 18% of the total population of Harris County is food insecure (FIGURE 17). In both counties about a quarter of all children (i.e., those under age 18) are considered to be food insecure. Concerns about food insecurity emerged in focus group conversations and interviews as well. Several respondents reported that they live in food deserts, and explained that they face challenges accessing food, especially food that is healthy. 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.” Among households in Harris County, nearly 13% of families receive benefits from the Supplemental Nutrition Assistance Program (SNAP), the program providing nutritional assistance for low-income families (data not shown). In Montgomery County, 7.5% of families receive SNAP benefits.

FIGURE 17. PERCENT FOOD INSECURE BY TOTAL POPULATION AND UNDER 18 YEARS OLD POPULATION, BY COUNTY, 2013

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Under 18 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montgomery County</td>
<td>16.0%</td>
<td>24.7%</td>
</tr>
<tr>
<td>Harris County</td>
<td>18.0%</td>
<td>26.3%</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.

According to the U.S. Department of Agriculture, in 2013 residents of Harris County had greater access to a grocery store (19 grocery stores per 100,000 population) than those in Montgomery County (11 grocery stores per 100,000 population) (FIGURE 18). Conversely, Montgomery County residents in 2012 had higher access to convenience stores (82 convenience stores per 100,000 population) than those in Harris County (55 convenience stores per 100,000 population). The prevalence of fast, convenient food was echoed by community residents and key informants such as one who stated, “We are full of chain restaurants and fast food in this area.” Low-income residents in the two counties served by MH The Woodlands have varied access to farmer’s markets. More low-income Montgomery County residents (21.1%) than Harris County residents (13.7%) had access to farmer’s markets (21.1%) (data not shown). Among zip codes corresponding to MH The Woodlands’ community in Harris County, zip code 77373 in Spring had the highest number of calls (1,760) to the United Way Helpline related to food in 2014 (data not shown).
**Eating Behaviors**

Eating healthy food promotes overall health. Focus group participants and key informant interviewees described healthy eating as a difficult habit to master. Limited access to healthy foods, the low cost of fast food, cultural food norms, time constraints, and poor education about nutrition were cited by informants as being top drivers of unhealthy eating habits. Key informants pointed to the lack of grocery stores in poor communities as contributing to unhealthy eating habits, although one respondent reported that this is improving due to efforts by grocery stores.

The low cost of and easy access to unhealthy, fast food was frequently cited as a contributor to unhealthy eating habits. Several respondents reported that this is a particular concern for lower income residents. As one interviewee explained, “there are folks who are real concerned about where their next meal comes from versus what the food is.” Other key informants cited cultural factors as affecting whether people make healthy food choices. As one community leader pointed out, “Southern cuisine isn’t healthy. Our food is fried and made with lots of butter.” Another informant echoed this saying, “We have great food with huge portions.” The composition of diets among Hispanic residents, with high fat and salt content, was also noted. Finally, the lack of knowledge about healthy eating and how to prepare healthy foods emerged as a key theme across several focus groups and interviewees. As one person stated, “more and more people don’t know how to make food. People depend on pre-made food or fast food.” Young people were especially singled out for their reliance on quick foods and lack of knowledge about how to make healthy meals at home. A critical need, therefore, according to respondents, is nutrition education.

*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**

Adult survey data about healthy eating habits as gathered through the BRFSS is available for Harris County but not for Montgomery County. The 2013 BRFSS reveals that only 12.2% of Harris County adults indicated that they ate fruits and vegetables five or more times per day (similar to the government recommendation) (FIGURE 19). Adults who were younger (18-29 years old) were more likely to meet this recommendation. When examining responses by race/ethnicity, 14.3% of Whites indicated that they ate fruits and vegetables five or more times per day compared to 11.5% of Blacks and 10.9% of Hispanics (FIGURE 20).
Youth 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 juice in the past 7 days, while 12.5% reported that they had not eaten any vegetables during this time period (FIGURE 21). Black students were most likely to indicate that they had not eaten any fruits (at 10.5%), while Hispanic students were most likely to report not eating any vegetables (at 14.2%). Non-white students were 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 students and 73.9% of Hispanic students reported they had not eaten breakfast in the past seven days (FIGURE 23). Black 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 23).
Others expressed concerns about air pollution. Given this, some residents mentioned that the region lacks low-cost opportunities for indoor physical activity such as gyms, community centers, and youth centers. Perspectives on the role of schools in promoting physical activity among students were mixed: some respondents reported that schools have been proactive in the area of physical activity while others reported that the focus on testing has made it difficult for schools to do much more than promote academics.

Key informants and focus group members frequently mentioned a lack of community infrastructure that supports physical activity, including sidewalks and bike routes. A couple of interviewees shared that efforts have been made in recent years to improve sidewalks and one interviewee stated that green space is increasingly being incorporated into city master plans. Time for exercise was also identified as a substantial constraint. As one informant stated, “[People] spend so much time commuting that by the time they get home they don’t want to go somewhere to exercise.” As with healthy eating, norms about physical activity and education about its importance were also cited as barriers to enhanced physical activity. According to some respondents, awareness about the importance of physical activity is increasing among residents and city officials.

“Houston is geared around cars and most people can’t walk to their jobs. Exercise is a luxury item in Houston. Making more hours in the day to exercise is not something that is likely.”

Key informant interviewee

More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had gotten any type of physical activity in the 30 days before responding to the BRFSS survey (FIGURE 24). When examining results by race and ethnicity, Hispanics were the least likely to report this, with 57.7% saying 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, the
recommendation for youth physical activity levels (FIGURE 25). Hispanic youth were slightly more likely to indicate this, with 68.6% reporting not reaching this level of activity.

FIGURE 24. PERCENT ADULTS SELF-REPORTED TO HAVE PARTICIPATED IN ANY PHYSICAL ACTIVITIES IN PAST MONTH, BY RACE/ETHNICITY, HARRIS COUNTY, 2013

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>68.2%</td>
</tr>
<tr>
<td>Other/Multiracial</td>
<td>82.9%</td>
</tr>
<tr>
<td>White</td>
<td>75.2%</td>
</tr>
<tr>
<td>Black</td>
<td>72.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>57.7%</td>
</tr>
</tbody>
</table>


FIGURE 25. PERCENT HOUSTON YOUTH (GRDES 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

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houston High School Youth</td>
<td>66.6%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>68.6%</td>
</tr>
<tr>
<td>White</td>
<td>63.7%</td>
</tr>
<tr>
<td>Black</td>
<td>62.7%</td>
</tr>
</tbody>
</table>

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

**Overweight and Obesity**

Obesity is a major risk factor for poor cardiovascular health and increases the risk of death due to heart disease, diabetes, and stroke. Almost all focus group participants and key informant interviewees acknowledge overweight and obesity is a major issue in the community, alongside diabetes and heart disease. Obesity, as described by focus group participants and key informant interviewees, is driven by unhealthy eating habits and low levels of physical activity. Several participants shared concerns about children being at high risk for obesity and the long-term impact of childhood obesity on children’s ability to learn, their health as they grow older, and the costs to the healthcare system. As one key informant shared, “Childhood obesity has already been a problem but now we’re seeing an increase in younger kids.” A couple of respondents reported that obesity among immigrant groups is rising. However, obesity is not limited to young, minority, or low-income residents. As one interviewee explained, “there is a lot of obesity in people who are well off.”

“**We all have diabetes, we are all worried about our weight and being well in general.**”

Focus group participant

In 2013, 69.4% of Harris County residents reported that they were overweight or obese. Nine out of ten (91.7%) Black, Non-Hispanic residents in Harris County are considered overweight or obese, according to self-reported height and weight responses (FIGURE 26). No data on overweight or obesity was available for Montgomery County.

FIGURE 26. PERCENT ADULTS SELF-REPORTED TO BE OVERWEIGHT OR OBESE, HARRIS COUNTY, 2014

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>69.4%</td>
</tr>
<tr>
<td>Black</td>
<td>91.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>74.8%</td>
</tr>
<tr>
<td>White</td>
<td>63.2%</td>
</tr>
<tr>
<td>Other/Multiracial</td>
<td>34.4%</td>
</tr>
</tbody>
</table>

**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 many residents in communities served by MH The Woodlands. The majority of focus group participants and key informants named diabetes (along with cancer and hypertension) as a top health issue in the region. Others noted that like obesity, diabetes is becoming increasingly prevalent in children. Informants talked about the unmet needs of diabetics, particularly due to lack of self-management and delaying care that can come with lack of health insurance or money for health 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 result from conditions that are exacerbated and not controlled.” A couple of respondents noted that diabetes is prevalent in the Hispanic community. Many informants discussed diabetes “running in families” as though diabetes is an expectation of life. As one informant explained, “We see people who expect to have diabetes because everyone in their family does.” Providers shared that this attitude makes it difficult to talk to patients about the preventable nature of the disease.

**FIGURE 27. PERCENT ADULTS SELF-REPORTED TO HAVE BEEN DIAGNOSED WITH DIABETES, BY RACE/ETHNICITY, HARRIS COUNTY, 2014**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>18-29 years</th>
<th>30-44 years</th>
<th>45-64 years</th>
<th>65+ years</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>15.2%</td>
<td>12.3%</td>
<td>13.2%</td>
<td>13.5%</td>
<td>15.2%</td>
</tr>
<tr>
<td>White</td>
<td>10.5%</td>
<td>13.3%</td>
<td>11.4%</td>
<td>10.5%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.4%</td>
<td>10.4%</td>
<td>10.4%</td>
<td>12.4%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Other/Multiracial</td>
<td>3.4%</td>
<td>4.4%</td>
<td>4.3%</td>
<td>4.5%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014

Note: Excludes respondents who were diagnosed during pregnancy.

**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, but unhealthy lifestyle choices can play a major role in the development of these top two conditions.

**“Heart disease especially is a health concern in the community. Everybody has high blood pressure.”**

Focus group participant
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, especially among seniors and minority populations, especially immigrants. As with diabetes, poor self-management and delayed care can have substantial negative consequences for patients and lack of education was seen as a factor contributing to heart disease risk. Other informants mentioned acculturation as being related to developing conditions like hypertension as newcomers experience the variety and quantity of food in the U.S. One focus group participant mentioned, “Hypertension is common in refugees. When they [Cubans] first come to the States, in Cuba, they had a certain amount of food. When they come here [to the States], they have free reign and access to any food.” Some key informants expressed concern that heart disease and stroke occurs more in populations experiencing health care inequities and those with less access to healthy food and options for physical activity.

In Harris County, according to the Texas Behavioral Risk Factor Surveillance System, in 2014 2.8% of adults reported having been diagnosed with angina or coronary heart disease (data not shown). Similarly, 3.6% of adults in Harris County self-reported having a heart attack in 2014, and 3.8% of Harris County adults self-reported having a stroke (FIGURE 29). 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%) (FIGURE 30). Harris County residents over the age of 65 were disproportionally likely to report having high blood pressure (71.7%) than their younger counterparts (FIGURE 31). White Harris County residents had the highest self-reported rate of high cholesterol (46.6%) while Black Harris County residents had the highest self-reported rate of high blood pressure (45.7%) (FIGURE 31). Data on heart disease, stroke, and cardiovascular risk factors is unavailable for Montgomery County.
A few key informant interviewees described air quality as an area of concern for the community, particularly for people living in Houston. Several focus group members and interviewees reported that asthma rates were high in the region, which was attributed to environmental quality and housing quality. As one informant described, “The prettiest days are the most polluted because pollution doesn’t have the rain or humidity to push it to the ground.” In 2013, 12.6% Texas adults self-reported having asthma at one point in their lifetime according to the Texas Behavioral Risk Factor Surveillance System. According to the Texas Department of State Health Services, in Harris County, 4.6% of adult residents reported that they have asthma (data not shown; data for Montgomery County not calculated due to insufficient sample size). In 2012, adult hospital discharges for asthma were similar in both Montgomery County (8.5 per 10,000 population) and Harris County (8.4 per 10,000 population) (data not shown). Among children in Harris County aged 17 years and younger, the rate of asthma-related hospital discharges for Black children was three times the rate for White children (24.2 versus 10.2 per 10,000 children) (FIGURE 33).

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 trend is similar to what is seen nationally. Focus group participants and key informant interviewees described cancer as one of the top health conditions seen in their communities. A few informants expressed concern that people do not have access to or are aware of early screening and detection resources. A focus group participant said, “You may get cancer because you don’t know about resources.”

According to the Texas Cancer Registry, Harris and Montgomery Counties had similar age-adjusted cancer incidence rates over the time period 2008-2012: 448.4 per 100,000 population in Montgomery County and 444.1 per 100,000 population in Harris County (data not shown). Cancer mortality rates for both counties were also similar (164.8 and 163.4 per 100,000 population in Montgomery and Harris, respectively) (data not shown). Cancer screening data are only available from Harris County. In a 2014 Behavioral Risk Factor Surveillance System
survey, 81.6% of women 40+ years or older indicated they had had a mammogram in the past two years while 70% of women indicated that they had had a pap test to test in the past three years (FIGURE 34). Over two-thirds (64.8%) of adults 50 years of age and older in Harris County reported having a colonoscopy or sigmoidoscopy in 2014.

**FIGURE 34. PERCENT ADULTS SELF-REPORTED CANCER SCREENING, HARRIS COUNTY, 2014**

<table>
<thead>
<tr>
<th>Screening Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammogram within past 2 years*</td>
<td>81.6%</td>
</tr>
<tr>
<td>Pap test within past 3 years**</td>
<td>70.0%</td>
</tr>
<tr>
<td>Sigmoidoscopy or Colonoscopy***</td>
<td>64.8%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014
* women 40 years old and over; ** women 18 years and over; *** adults 50 years and over

**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 The Woodlands.

**Mental Health**
Focus group participants and key informants identified mental health and lack of access to mental health services as a major unmet need in the community served by MH The Woodlands. Behavioral health providers reported a growth in demand for their services. Overall, stress, anxiety, and depression were identified as the most common mental health concerns in the community.

Respondents reported that the region lacks enough mental health providers of all kinds to address the need, including psychiatrists and social workers, in-patient beds, and school counselors and others skilled at addressing the needs of children and teens. As a result, those who need services must wait long periods to access them or go untreated. Other informants noted the link between mental health and incarceration. One key informant shared that, “We have a huge problem with mental health...the largest mental health center is the county jail.” Several respondents specifically mentioned a long-standing lack of attention to and investment in mental health services at the state level, although others mentioned that new innovations that are being supported through Texas’ Section 1115 Medicaid demonstration waiver.

While more affluent residents were seen as having greater access to mental health services, low-income residents face substantial challenges including transportation and lack of insurance and resources to pay for services out of pocket. According to respondents, addressing the mental health concerns of non-English speakers and recent immigrants, some of whom suffer from PTSD, is a particular challenge. Reasons cited included lack of bi-lingual providers, stigma within communities, and reluctance by undocumented individuals with mental health concerns to seek care. Stigma about mental illness was mentioned as a substantial barrier to identifying mental health concerns and seeking treatment among all population groups. As one informant explained, “People may not seek services because of the stigma or what they perceive is normal in their own families and may not realize that it’s correctable and there are services available.” Respondents saw a need to destigmatize mental health illness.

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 19.3% of adults in Harris County self-reported as having five or more mental health issues are multi-cultural. They do not discriminate...it will touch every family regardless of their level of education and professional standing. It goes back to access to care and treatment. The lower income cohort is most vulnerable because they lack access to specialists.”

Key informant interviewee
poor mental health days (FIGURE 35). Self-report of having had five or more days of poor mental health was highest among residents aged 18 to 29 (26.5%) and Black residents (24.2%) in Harris County (FIGURE 36). (Data for Montgomery County was unavailable.) Rates of psychiatric discharge in 2011 were 3.5 per 1,000 people in Montgomery County and 4.9 per 1,000 in Harris County (data not shown; Data Source: MONARHQ as cited in Prevention Resource Center 6, Regional Needs Assessment, 2015).

FIGURE 35. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH, BY AGE, HARRIS COUNTY, 2014

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>19.3%</td>
</tr>
<tr>
<td>18-29 years</td>
<td>26.5%</td>
</tr>
<tr>
<td>45-64 years</td>
<td>21.6%</td>
</tr>
<tr>
<td>30-44 years</td>
<td>15.2%</td>
</tr>
<tr>
<td>65+ years</td>
<td>12.8%</td>
</tr>
</tbody>
</table>


FIGURE 36. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH, BY RACE/ETHNICITY, HARRIS COUNTY, 2014

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>19.3%</td>
</tr>
<tr>
<td>Black</td>
<td>24.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20.9%</td>
</tr>
<tr>
<td>White</td>
<td>17.6%</td>
</tr>
<tr>
<td>Other/Multiracial</td>
<td>12.3%</td>
</tr>
</tbody>
</table>


Focus group participants and key informants reported that children and youth are at high risk for mental health problems, and that the response to their needs is inadequate. Several respondents observed that increasingly younger children are struggling with serious emotional illness, which were attributed to pre-term births, parental substance abuse during pregnancy, and family stress and violence. While mental health services in general were seen as lacking in the region, services for children and youth were reported to be particularly scarce. As a result, schools are increasingly called on to address these concerns, something that many are ill-equipped to do according to informants. The consequence, as one informant shared, is that “Too many cases are undiagnosed for too long.” Another informant pointed to teen suicide as a top issue of concern in the communities of Montgomery County: As an informant from Montgomery County explained, “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.”

Substance Use and Abuse

Substance use and abuse affects the physical and mental health of its recipients, their families, and the wider community. Stakeholders raised substance abuse as being an important health issue in the community by many interview and focus group participants. Participants shared concerns about marijuana and other drug use as well as alcohol abuse in the region, which some linked to increased crime in their communities. Neither focus group participants nor key informant interviewees identified opioid addiction as a major health issue affecting the MH The Woodlands community. Several informants attributed this to a reluctance among physicians to prescribe pain medication and the closing down of several pain clinics in Houston in recent years.

Among teens, use of alcohol and marijuana was reported. One informant from Montgomery County reported that synthetic drugs are emerging as a concern for the community: “We have poor kind of drugs in the poorer areas...lots of kids are dying...kids don’t know that the synthetic drugs could kill them.” Some saw a need for education of youth about drug dangers. Alcohol abuse—among both adults and teens—was reported to be a concern for the region. Reasons cited for alcohol abuse were stress and mental illness as well as social norms and in the case of youth, peer pressure. The prevalence of alcohol was also noted. Youth focus group members reported that alcohol abuse and drinking and driving among teens is a
critical issue, and noted recent deaths in their schools due to drunk driving by teens. Schools were reported to be responsive in providing education about the dangers of substance use although some stressed that more was needed. Perspectives on the prevalence of smoking varied across respondents. Some respondents reported that it was not a key health issue for the region. Others, however, reported higher rates of smoking among seniors and some demographic groups. Smoking and vaping was reported to be less prevalent among youth.

As with mental health services, residents reported that the need for substance use services—both prevention and treatment—exceeds the available supply. Barriers to addressing substance use issues are similar to those for mental health concerns and include stigma, lack of services, and lack of awareness. As one informant explained, “No one wants to talk about behavioral health or substance abuse because of the stigma.”

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% of adults self-reported being current smokers. Only 1.9% of Harris County adults self-reported to have drank alcohol and drove in the past month. (Data is unavailable for Montgomery County.) According to the Texas Department of Transportation, in 2010-2014, Montgomery County had a higher rate of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (113.3 per 100,000 population) than Harris County (66.9 per 100,000 population) (data not shown).

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. Some informants reported concern about parents not getting their children vaccinated against diseases such as measles, which they attributed to continuing misinformation about vaccines. Hepatitis was identified by a few informants as a concern and was reported to be prevalent among some demographic groups. Some focus group participants and key informants reported that education and awareness about HIV/AIDS is lacking in some communities. A low-income focus group participant reported that “Where I live, there is money in this area, but when you get in to the poor areas...they are hurting. There is a very high statistic of HIV and it’s going to spread...There’s no education and no resources in the community.”

HIV
Harris County experienced a much higher HIV rate in 2014 than Montgomery County, with 516.1 people living with HIV per 100,000 population, compared to 125.3 per 100,000 population for Montgomery County (FIGURE 37). HIV rates in both counties have increased from 2011 to 2014.

Other Sexually-Transmitted Diseases
Rates of sexually transmitted diseases—chlamydia, gonorrhea, and syphilis—were markedly higher for Harris County compared to Montgomery County. From 2011 to 2014, case rates of all three diseases increased in both counties (FIGURE 38, FIGURE 39, and FIGURE 40).
FIGURE 37. RESIDENTS LIVING WITH HIV RATE PER 100,000 POPULATION, BY COUNTY, 2011-2014


FIGURE 38. CHLAMYDIA 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

FIGURE 39. SYPHILLIS 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
FIGURE 40. 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
According to the BRFSS, the rate of tuberculosis in Harris County (7.2 per 100,000 population) in 2014 was over five times the rate in Montgomery (1.2 per 100,000 population) (data not shown).

Influenza
Data on influenza rates is only available for Harris County. In 2014, 35.9% of adults reported having had a seasonal flu shot or vaccine via nose spray, according to the Texas Behavioral Risk Factor Surveillance System. As shown in FIGURE 41, residents aged 65 years or older were disproportionately more likely to have received a flu shot (59.0%) than other age groups.

FIGURE 41. PERCENT ADULTS SELF-REPORTED TO HAVE HAD SEASONAL FLU SHOT OR SEASONAL FLU VACCINE VIA NOSE SPRAY, BY AGE, HARRIS COUNTY, 2014

Reproductive and Maternal Health
Good reproductive and maternal health provides a stronger foundation for newborns 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 The Woodlands.

Birth Outcomes
According to the Texas Department of State Health Services, approximately one in ten babies born in Harris (11.8%) and Montgomery Counties (10.4%) are premature, meaning born before 37 weeks gestation (data not shown). The proportion of babies born with low birthweight is higher in Harris County (8.6%) compared to Montgomery County (6.6%). The proportion of babies born with low birthweight varies by race. Babies who are Black in the counties are more likely to be born low birthweight than babies of other races and ethnicities (FIGURE 42). In Montgomery County, the proportion of low birthweight babies is two times higher than babies of other races and ethnicities.

FIGURE 42. 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/ethnicity; low birth weight is defined as under 2,500 grams.
**Prenatal Care**

According to the Texas Department of State Health Services, 60.7% of live births in Montgomery County in 2013 occurred to mothers who received prenatal care in their first trimester compared to 56.1% of Harris County live births (FIGURE 43). Rates of first trimester prenatal care in both counties were highest for White, non-Hispanic mothers and lowest for Black, non-Hispanic mothers. Rates of receiving no prenatal care were 3.1% and 3.9% for Montgomery and Harris County mothers, respectively (FIGURE 44). Rates of receiving no prenatal care in both counties were highest for Black, non-Hispanic mothers (6.1% in Montgomery County and 5.4% in Harris County). In Montgomery County, the rate of receiving no prenatal care was lowest for Hispanic mothers (2.7%); in Harris County, the rate of receiving no prenatal care was lowest for mothers of Other race and ethnicity (2.7%).

**FIGURE 43. PERCENT BIRTHS WITH PRENATAL CARE IN THE FIRST TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013**

![Bar chart showing prenatal care rates by race and ethnicity in Montgomery County](chart1)

![Bar chart showing prenatal care rates by race and ethnicity in Harris County](chart2)

**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

**FIGURE 44. PERCENT BIRTHS WITH NO PRENATAL CARE IN ANY TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013**

![Bar chart showing rates of no prenatal care by race and ethnicity in Montgomery County](chart3)

![Bar chart showing rates of no prenatal care by race and ethnicity in Harris County](chart4)

**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
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). In 2013, Harris County had a slightly higher rate of teen births (2.8%) than Montgomery County (2.1%) (FIGURE 45). Teen births rates varied by race and ethnicity. Hispanic teen mothers had the highest birth rates across two counties while White teen mothers had the lowest.

FIGURE 45. PERCENT BIRTHS TO TEENAGED MOTHERS AGE 17 YEARS OLD AND UNDER, BY COUNTY, 2013

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

Oral health is a strong indicator of overall well-being and health. In addition to tooth decay and gum disease, poor oral hygiene has been linked in some studies to premature birth, cardiovascular disease, and endocarditis. Oral bacteria and inflammation can also lead to infection in people with diabetes and HIV/AIDS. Several focus group respondents and interviewees reported that oral health was a concern, especially for seniors on fixed incomes and low-income individuals. Dental services were described as being expensive and thus out of reach for many. Focus group members shared personal experiences in trying to get dental care, which was often too expensive for them to afford. While some health clinics have dental services, these are often difficult to access due to long waitlists. As one provider of oral health care in Montgomery County explained, “We do a lot of good but we are only scratching the surface. The kids who come have never seen a dentist before.” Dental care for children was seen as a need as well as resources to pay for things like toothbrushes. Parent education was also seen as key.

According to the Texas Medical Board, in 2014 in the two counties served by MH The Woodlands, Harris County (57.4 per 100,000 population) had a higher rate of dentists than Montgomery County (49.2 per 100,000 population) (data not shown). According to the Texas Behavioral Risk Factor Surveillance System, 58.2% of adults in Harris County in 2014 self-reported having visited a dentist or dental clinic within the past year for any reason (FIGURE 46). Hispanic adults in Harris County reported the lower rates of annual dental visitation (50.6%). Adults with higher education levels (i.e., more than a high school education) were more likely to have received dental care in the past year in Harris County (FIGURE 47). Similarly, Harris County adults with higher incomes were more likely to have received dental care (FIGURE 48). Data on dental visitation is only available for Harris County.

**FIGURE 46. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY RACE/ETHNICITY, HARRIS COUNTY, 2014**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>58.2%</td>
</tr>
<tr>
<td>Other/Multiracial</td>
<td>70.2%</td>
</tr>
<tr>
<td>White</td>
<td>65.2%</td>
</tr>
<tr>
<td>Black</td>
<td>57.2%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>50.6%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014

**FIGURE 47. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY EDUCATION, HARRIS COUNTY, 2014**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>58.2%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>76.5%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>61.9%</td>
</tr>
<tr>
<td>&lt; High School</td>
<td>48.1%</td>
</tr>
<tr>
<td>Some College</td>
<td>47.1%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014

**FIGURE 48. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY INCOME, HARRIS COUNTY, 2014**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>58.2%</td>
</tr>
<tr>
<td>$50,000 or more</td>
<td>75.1%</td>
</tr>
<tr>
<td>$25,000-$49,999</td>
<td>56.4%</td>
</tr>
<tr>
<td>&lt;$25,000</td>
<td>44.7%</td>
</tr>
</tbody>
</table>

**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014
HEALTH CARE ACCESS AND UTILIZATION

Health Insurance
Health insurance is a predictor of access to health care services and overall population health. Lack of health insurance and the high number of uninsured in the region was a common theme across focus groups and interviews. Many focus group participants from low-income areas reported frustration regarding this lack of health insurance. Despite 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 rate of uninsured according to respondents is that Texas has not adopted Medicaid expansion, which leaves a large number of working poor uninsured. Additionally, respondents reported that the cost of insurance is too high for some to afford. Lack of insurance and underinsurance has a substantial negative impact on health, according to informants, because people will not seek preventative care. As one interviewee shared, “When people are uninsured, people are less likely to be proactive about health.”

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

Uninsurance rates decreased for Montgomery and Harris counties following the passage of the Affordable Care Act in 2010 (FIGURE 49). Harris County had higher rates of uninsurance than Montgomery County during the 2009-2014 period. In 2014, Rates of uninsurance varied by zip code across the communities served by MH The Woodlands. In 2013, three zip codes in Conroe had the highest rates of uninsurance for the total population: 77301 (38.3%), 77302 (26.5%), and 77303 (25.7%) (FIGURE 50). Among individuals aged 18 and younger, uninsurance rates reported in 2013 were lower than the overall population. In 2013, two zip codes in Conroe had the highest rates of uninsurance for individuals aged 18 and younger: 77302 (21.0%) and 77301 (20.0%) (FIGURE 51).

Among the zip codes served by MH The Woodlands, 51,761 residents were enrolled in Medicaid (data not shown). Enrollment in Medicaid varied by zip code. In Montgomery County, the zip code with the most Medicaid enrollees was 77301 in Conroe (6,776 enrollees) (FIGURE 52). In Harris County, the zip code with the most Medicaid enrollees was 77373 in Spring (7,500 enrollees).

“I don’t worry about access except for uninsured people because there aren’t enough people providing charity care.”

Key Informant Interviewee
FIGURE 49. PERCENT TOTAL POPULATION UNINSURED, BY COUNTY, 2009-2014

FIGURE 50. PERCENT TOTAL POPULATION UNINSURED, BY ZIP CODE, 2013

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
FIGURE 51. PERCENT UNDER 18 YEARS OLD POPULATION UNINSURED, BY ZIP CODE, 2013

DATA SOURCE: U.S. Census Bureau, American Community Survey 1-Year Estimates, 2010-2014
FIGURE 52. NUMBER ENROLLED IN MEDICAID, BY ZIP CODE, FISCAL YEAR 2015

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 exist and services are not available equally to everyone. Access to care was described as a challenge particularly in some areas served by MH The Woodlands where economic challenges were greater and there was a higher proportion of low-income and uninsured patients. Respondents shared that some residents face barriers to accessing health care that include the availability of providers and appointments, cost, transportation and for some, language and cultural barriers.

While some residents reported that the region has many specialists, others disagree. Focus group participants and key informants stated that shortages of lower cost specialty providers, particularly in oral health and psychiatry, presented a barrier to access to care for area residents. As one mental health provider explained, “I’m a social worker by training, and licensed, and I don’t think we can keep up with the demand on our systems and structures.” Several respondents mentioned that the growing number of free-standing ERs and drugstore-based clinics have added to the landscape of health care services available to residents. However, as one provider explained, “What patients get there is access but not a medical home.” A related challenge, according to respondents, is that a growing number of physicians in the region served by MH The Woodlands, especially specialists and mental health providers, do not accept Medicaid and Medicare or cap their number of patients. As one interviewee stated “doctors don’t need to take public insurance because there are enough people here [with private insurance] who seek medical care.” Providers report that low reimbursement and difficult contracting experiences with the state have been the primary reasons that practices are closing to Medicare and Medicaid patients. According to focus group respondents and interviewees, the barriers to health care access have led 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.”

The cost of healthcare was also reported to be a challenge to accessing healthcare. Focus group members and interviewees reported that high deductibles and co-pays prevent some from accessing needed care. Several respondents expressed a concern about high-deductible plans that can discourage patient use of healthcare. As one provider explained, “A pressing concern for many is the high-deductible plans. Some don’t recognize what that impact is, but many will defer care because of that cost.” A related challenge is the cost of medication, some of which are not covered by insurance. One focus group participant from a mid-to-high socioeconomic status reported that some people do not have “access to medication...They can’t afford it. They can buy food, but can’t get insulin because their insurance does not cover enough of the cost.” While residents reported that there are medication assistance programs, these are seen as insufficient to meet the need. A couple of respondents also mentioned that cost of other health services—like dental and vision care—is expensive and often not covered by insurance.

“It 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. How does any senior pay for that?”

Senior Focus Group Participant

In addition to the barriers described above, cultural and language minorities face unique challenges to accessing health care according to respondents. Newcomers often take low wage jobs with no health insurance. They must negotiate a complex and unfamiliar U.S. health care system and much paperwork. While respondents reported that some healthcare providers have bilingual staff or use translation services, not all do. 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.” 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. One focus group participant residing in a low-income area reported: “...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.”

While many respondents described the region as relatively rich in health and social services, several also reported that people are not accessing them because they don’t know about them. As one interviewee from Harris County explained, “Harris County has a lot of programs and services. Information needs to be made available to [patients].” An interviewee from Montgomery shared a similar viewpoint: “there’s not a central method for people to go and find out what services they can go to in this county for health services and health care.”

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 71.9 primary care physicians per 100,000 population in Montgomery County (FIGURE 53). In Harris County, 38.2% of adult residents reported in the BRFSS survey that they did not have a doctor or health care provider (data not shown; data unavailable for Montgomery County).

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

Montgomery County 71.9

Harris County 82.6

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/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 using a hospital emergency department (ED). In 2013, about four in ten ED visits were classified as primary care-related.

Of MH The Woodlands’ 25,364 ED visits in 2013, 35.6% were from patients who were uninsured or on Medicaid, and 34.3% were classified as non-emergent or with primary care treatable conditions. Eight zip codes in the MH The Woodlands’ CHNA-defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH The Woodlands in 2013 (FIGURE 54). Of all ED visits, 5.6% were for chronic conditions of which 29.7% were cardiovascular-related.

Of MH The Woodlands’ 17,081 inpatient discharges in 2015, 7,362 inpatient discharges or 41.4% were related to an ambulatory care sensitive condition. The top three ambulatory care sensitive conditions that resulted in inpatient care at MH The Woodlands in 2015 were diabetes (92 discharges), cellulitis (76 discharges), and kidney or urinary conditions (71 discharges).
FIGURE 54. TOP 20 ZIP CODES WITH HIGHEST NUMBER OF PRIMARY CARE TREATABLE EMERGENCY DEPARTMENT VISITS AT MH THE WOODLANDS, BY CHNA-DEFINED 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 area was described as “an extremely diverse community” with “positive growth” and a “sense of community.” Informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. Many key informants and focus group participants described a sense of social cohesion across communities. This cohesion does not just occur within neighborhoods, but also within groups sharing a common issue. For example, one key informant reported: “From what I see in the disability community is a strong sense of friendship. People know each other and care about each other because they see that they have similar difficulties. That brings people together and supports and connects them.”

High-Quality, Plentiful Medical Care
A key theme among key informants and focus group participants was the wide availability of health care services and the high quality of those services, both in Houston and within communities served by MH The Woodlands. As one informant explained, “[We have] one of the strongest complex of medical services in United States and the world.” The health care system is also described as having a strong community health system in addition to world-class acute care: “We have a strong community health care system...there is a significant amount of hospitals available to people.” Additionally, many respondents pointed to excellent services provided by health departments in many counties in the region and a strong infrastructure of school-based health centers. The challenge, noted by many respondents, is ensuring these excellent services are accessible to all residents.

Strong Public Health and Social Service System
The communities of MH The Woodlands are served by a robust network of public health and social service organizations. Many focus group participants and key informant interviewees reported that their communities are 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 the 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.” 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 reported improvement in the local economy, creating economic opportunities for residents and businesses in the communities served by MH The Woodlands: “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. As one focus group member shared: “There’s a lower cost of living. I came from California. Everything is cheaper here.” While there is a strong economic base on which to build, it is important to note that this could be constrained by sustained depression of oil prices given the prominent role the oil industry plays in the economy.
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. Prominent themes that emerged related to the future program and service environment 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.” Key informants and focus group participants had many ideas about the strategies that might be used to promote healthy living. For example, stakeholders suggested investment in education in communities with the highest rates of obesity to promote healthier habits: “I suggest major educational efforts. Not one size fits all but they would be tapping into multiple parts of the community where you can access individuals who need it.” 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.”

Respondents largely recognized, however, that increasing access to healthy foods and opportunities for physical activity were insufficient and that people also needed to be aware of what it means to live a healthy lifestyle, and how to do so. As one interviewee mentioned, “It all comes down to lack of knowledge. People don’t know where to start as far as health. They don’t have the basics down. Things like: How should I be dieting? How much should I be walking?” Other stakeholders suggested investment in education in communities with the highest rates of obesity to promote healthier habits: “I suggest major educational efforts. Not one size fits all but they would be tapping into multiple parts of the community where you can access individuals who need it.” To address this, they suggested more education programs around things like nutrition, cooking healthy foods, and more community-based events around physical activity. Parent engagement was seen as critical. As one person stated, “We need to do more educating and engaging family. It needs to be reinforced at the family level.” Respondents saw many potential partners in this work including hospitals, schools and school nurses, social service organizations, public programs like WIC, faith institutions, and workplaces. A couple suggested PSAs with positive messaging around healthy lifestyles.
Improve Transportation
Transportation presents many problems in the communities served by MH The Woodlands, 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, “We really do need a robust transportation system. Increasing access to that will make a big difference in community health.” Focus group participants and key informant interviewees made suggestions about the direction of future efforts to address transportation. For example, stakeholders suggested non-profits could offer more transportation services. As stated by one key informant working in the social services industry, “Having more vehicles available and of course having funds to hire more people would help us improve access to care.” Stakeholders also suggested public transportation be expanded and promoted, especially in areas where the population is expanding.

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 The Woodlands. Stakeholders described existing strategies such as community health workers that should be expanded. Given the challenges in understanding and navigating the health insurance and health care systems especially with the implementation of ACA, several respondents suggested that more support be provided to residents around this. Numerous respondents pointed to the critical role that Community Health Workers play in educating patients and community members about prevention and in helping them to navigate the health system. For example, a stakeholder stated that she suggests “Navigator programs for people to access healthcare.” Senior focus group respondents in particular identified the need for advocates to be available for them to navigate the complexities of the health care system. As one senior focus group member stated, “We need personal advocates for us seniors. We don’t have anyone to fight for us, no one to talk for us.” As another person stated, “We need to teach health literacy. Sure, the ACA has been positive but if people don’t know how to use their insurance, it’s useless.” Respondents also pointed to the need for larger systems reform that incentivizes a more holistic approach to health care, including a social support component. 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.”

Expand Availability and Access to Health Care Services
While the communities served by MH The Woodlands 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. “We’ve got some of the greatest medicine in town. The cardiologists, the OBs, the neonatologists...and that’s great but we need more.” One strategy suggested by multiple stakeholders was investment in training the 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.

Enhancing awareness of existing services—both health related and social services—was also seen as critical. Respondents reported that more needs to be done to market the services that already exist in the region, including programs offered by hospitals, social service agencies, and health departments. Residents expressed a desire for more marketing of local programs and services. They stressed the need for a multi-pronged marketing approach that is relevant to the audiences. Respondents reported that this should include outreach through traditional means such as TV and radio (for seniors), social media, and messaging through local cable TV or ethnic media outlets.
Informants identified behavioral health care access as a major unmet need in the communities served by MH The Woodlands. Residents reported that more behavioral health services were needed across the region and across age groups: “There is a major need for detox and behavioral health. There needs to be a closer link between population health and primary care,” said one key informant interviewee. Many stakeholders reported that the Texas Section 1115 Medicaid demonstration waiver had opened the door in the state to improvement in access to and quality of behavioral health services. Stakeholders suggested that Texas should pursue strategies that sustain these efforts and continue to promote innovation within the behavioral health services space. Respondents also suggested that much more needs to be done to reduce the stigma associated with behavioral health issues. They suggested education at multiple levels including community-wide education through PSAs as well as work within schools and community-based programs.

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 The Woodlands. Lack of collaboration among big players in the health care space—from medical institutions to public health organizations, government, payers, and social services—was a consistent theme across the key informant interviews. As one person shared, “Harris is a unique county in that it’s very large, one of the largest in the state. And although we tend to have a lot of resources here they are not well coordinated.” 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 CONCLUSION

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 The Woodlands, 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:

- **Harris and Montgomery Counties differ in terms of demographics and population health needs; however the two largest cities served by MH The Woodlands are more demographically similar to Harris County.** Harris County is home to a more racially, ethnically, and linguistically diverse population with lower levels of income, education, than that in Montgomery County. The cities of Conroe and Spring more closely mirror Harris County in terms of key demographic variables. Much health data are not available at the city level. Harris County has a higher overall mortality rate when compared to Montgomery County and Harris County residents face higher rates of hospital admissions for diabetes, psychiatric discharge rates, and rates of STDs.

- **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 The Woodlands are experiencing challenges associated with rapid population growth, including strain on housing availability, time spent commuting to work, and the availability of resources to stay healthy. 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, fewer sidewalks, and more violence are at a disadvantage in the pursuit of healthy living.

- **Although there is economic opportunity for many residents, there are pockets of poverty and some residents face economic challenges which can affect health.** Seniors and members of low-income communities face challenges in accessing care and resources compared to their younger and higher income neighbors. While uninsured rates have decreased slightly over the past five years, many adults and children face barriers to obtaining care without a payment source. There are many support organizations in the community that help the uninsured obtain health insurance and charitable care such as federally qualified health centers, but stakeholders report more support is needed for this vulnerable population. Strategies such as community health workers may increase residents’ ability and increasingly complex health care and public health system.

- **Obesity and concerns related to maintaining a healthy lifestyle emerged as challenges for the region.** In Harris County, nearly 7 in 10 adults were considered overweight or obese. It also emerged as a key issue in every focus group and interview discussion. Barriers ranged from individual challenges of lack of time 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 to be ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, youth).

- **Behavioral health was identified as a key concern among residents.** Stakeholders highlighted unmet needs for mental health and substance abuse services in the communities served by MH The Woodlands, particularly the burden of mental illness for young people and the incarcerated population. 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 1115 waiver. This area is ripe with opportunity to address needs that are currently not being met.
Communities served by MH The Woodlands have many 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 the two counties, there is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care and behavioral health services as well as actively participate 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 55, 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 The Woodlands. 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 The Woodlands, 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 55. 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>
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<td></td>
<td>Political and social acceptability</td>
<td>Can move the needle</td>
<td>Political capacity/will</td>
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<tr>
<td></td>
<td>Public attitudes and values</td>
<td>and demonstrate measureable outcomes</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>
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## APPENDIX A. REVIEW OF 2013 INITIATIVES

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<th>CHNA PRIORITY</th>
<th>OBJECTIVES</th>
<th>RESULTS</th>
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<tr>
<td>Education and prevention for diseases and chronic conditions</td>
<td>To address education and prevention for diseases and chronic conditions (diabetes, heart disease, cancer, and Alzheimer’s) through community programs such as education sessions, screenings, support groups and health education publications.</td>
<td>In the past three years, MH-The Woodlands served 70,820 individuals through 30 programs focused on education and prevention for diseases and chronic conditions.</td>
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<td>Address issues with service integration, such as coordination among providers and the fragmented continuum of care</td>
<td>To address information sharing, patients’ needs for medical homes, and inappropriate ED use through several programs.</td>
<td>All 11 participating hospitals are responding to the community's concern about the lack of record sharing among providers through the Memorial Hermann Information Exchange (MHiE) which uses a secure, encrypted electronic network to integrate and house patients' digital medical records so they are easily accessible to authorized MHiE caregivers. The service is free to patients and only requires their consent. To date, 50.6% or 4,117,874 of Memorial Hermann patients have registered to participate. Another initiative is for all inpatient, outpatient, and emergency room progress notes to be electronic providing for up-to-date provider access anytime, anywhere. MH-The Woodlands patients are referred to the Palliative Care team primarily for Goals of Care Discussions with Family and unmanaged pain. Program impacts include: reduction in average length of stay (pre-consult ALOS is 3.7 days; post-consult ALOS is 2.3 days); decreased length of stay in the Intensive Care and Intermediate Care Units; and minimized hospital readmissions.</td>
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<td>Address barriers to primary care, such as affordability and shortage of providers</td>
<td>To develop recruiting strategies for PCPs within the service area; To assess implementation of a Hospitalist Service to the medical staff to introduce, educate, and encourage service buy-in by physicians; and To continue to capitalize on community resources for primary care.</td>
<td>Memorial Hermann Medical Group (MHMG) employs primary care providers in our community and continues to promote and educate on the importance of having a family medicine physician in the community. MH-The Woodlands collaborates with Interfaith Community Clinic (ICC), a not-for-profit volunteer based clinic serving the uninsured population in Montgomery. Discharged uninsured ER patients are referred to the clinic. In turn, MH-The Woodlands</td>
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<td><strong>CHA PRIORITIES</strong></td>
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| **Address unhealthy lifestyles and behaviors** | To continue to reinforce healthy lifestyles and influence and encourage behavior change. | - Bi-monthly free seminars with a bariatric surgeon are conducted for the public. All are welcome. The information covered in these seminars includes: the definition, causes, risks, prevalence, and treatment of obesity, (including diet/behavior modifications, weight loss programs, drug options, and counseling), qualifications for bariatric surgery, information about the bariatric surgeon, information regarding insurance coverage, and surgical options (including benefits, complications, and risks associated with each).

- Bi-monthly free Weight Loss Support Groups are held. All are welcome, including pre- and post-operative patients.

- A communicable diseases/hand washing/sanitizer campaign for all staff was conducted, with inclusion in the patient handbook that is provided to patients and families. A flu shot campaign was conducted, not only for staff but with notices to the public to restrict visitation if they are ill, cover their mouths when sneezing/coughing (signs posted throughout campus). Included in the campaign were talks by family medicine physicians to seniors and area companies about the flu.

- Accident prevention (Shattered Lives) seminars were conducted in different areas of the community.

- Concussion education at health fairs with focus on the elderly and on student athletes was provided. Handouts were available for the
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<th><strong>Address barriers to mental healthcare, such as access to services and shortage of providers</strong></th>
<th><strong>To partner with the Psych Response Team to provide case management of post-discharge behavioral health patients in order to encourage compliance in prescribed health maintenance activities. To partner with the Psych Response Team to provide a crisis stabilization clinic that will provide rapid access to initial psychiatric treatment and outpatient services.</strong></th>
<th><strong>To address the barriers to obtaining mental health care, Memorial Hermann has a Psych Response Team used by all of its hospitals to identify, consult with and refer patients who would benefit from appropriate community mental health care. In FY 2016, consults totaled 8,335. Through appropriate referral and placement among 200+ mental health providers within the greater Houston area, the Psych Response Team has reduced emergency room average length of stay for psychiatric patients needing an inpatient psychiatric bed from 72 hours in 2000 to 5.5 hours today. The Psych Response Case Management Program provides intensive community-based case management services for individuals with chronic mental illness who struggle to maintain stability in the community. Since its inception in October 2013, this program has serviced 301 patients from enrollment to</strong></th>
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<td>public providing additional information about concussion signs and symptoms and concussion management.</td>
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<td>- Car Seat videos were provided, educating parents on car seat safety and connecting them with area fire stations for safety checks.</td>
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<td>- Booths at area health fairs were manned, educating the community on the risk of tip over accidents (heavy furniture items falling over, particularly onto children, i.e., bookcases, TVs, etc.).</td>
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<td>- Employee wellness programs continue to include incentive/disincentive for wellness/non wellness selections.</td>
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<td>- The successful pilot, &quot;Eat this...Not That&quot;, was expanded with displays throughout all MH-The Woodlands employee and patient food access points including the Café at grill and hotline.</td>
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<td>- Vending wellness items were added to all 1st floor public area vending machines.</td>
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<td>- Patient menu as well as catering menus were revised with not only a focus on healthy options but in support of the &quot;Less is more&quot; campaign.</td>
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| Decrease health disparities by targeting specific populations | To address the populations most at risk including the safety net population, the unemployed, children, elderly and “almost elderly,” non-English speaking minorities, Asian immigrant populations and the homeless. | Each year, approximately $600,000 in outpatient laboratory, radiology and cardiology services at MH-The Woodlands are provided for 840+ visits by Interfaith Community Clinic patients.  
MH-The Woodlands provided monthly speakers through The Woodlands Township - rotating every other month between Copperwoods and Tamarac Pines Apartments, apartments providing lower cost housing options for seniors. A physician or other health expert attracts 40+ seniors at each session.  
1800 face-to-face encounters, where case manager and patient collaborate to maintain mental health stability, have resulted in a reduced client facility utilization of 68% in the 6-months post discharge.  
The Memorial Hermann Mental Health Crisis Clinic is an “Urgent Care” outpatient mental health clinic intended to serve individuals in crisis situations or individuals unable to follow up with other outpatient providers for their mental health needs. The clinic aims to promote better health outcomes for patients with mental health treatment needs, decrease unnecessary ED visits, and decrease inpatient hospitalizations and incarcerations due to inability to engage and remain in mental health treatment. Licensed Clinic Social Workers and Licensed Professional Counselors assist in linking to outpatient follow-up, either by helping patients establish an appointment with an outpatient provider or by providing patients with resources and referrals. These clinics are not designed to provide continuous outpatient follow-up for mental health needs; rather, they serve as part of the mental health safety net in lieu of expensive ED visits. There are three clinic locations in the greater Houston area. From 2015-2016, patient encounters, including follow-up visits, totaled 7,149.  
Memorial Hermann Home Health has a behavioral health trained home health nurse that is available for home health needs that are complicated by behavioral health disease. |
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<td>MH-The Woodlands provided on-going physician/health care expert speakers for LoneStar College-Montgomery County’s Adult Lifelong Learning (ALL) Academy.</td>
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<td>MH-The Woodlands created and distributed throughout the hospital lists of local food pantries, local shelters, low cost prescription programs and low cost and free clinics.</td>
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<td>Community resource booklets and information sheets are available to patients, families and visitors in hospital lobbies and waiting rooms. These resource booklets and information sheets are available in both English and Spanish.</td>
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<td>The Emergency Center offers patients a list of area clinics, identifying low cost clinics.</td>
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<td>MH-the Woodlands expanded into Spanish language through The Woodlands en Espanol website, also through area Spanish language magazines (Vida Social, VIVA!)</td>
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<td>MH-The Woodlands became a member of the Montgomery County Hispanic Chamber of Commerce and provides pertinent health topics and speakers.</td>
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<td>MH-The Woodlands participated in the annual Fiesta Universal (cultural festival in Montgomery County) with a booth providing blood pressure checks and information on heart attacks, stroke and diabetes.</td>
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<td>MH-The Woodlands prepared breast cancer self exam shower cards for the many events and health fairs attended - one side in English and the other in Spanish.</td>
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<td>Increased access to affordable dental care</td>
<td>Not Applicable</td>
<td>The need for “increased access to affordable dental care” is not addressed due to the fact that dental is not a core business function of Memorial Hermann and the limited capacity of each hospital to address those needs. Memorial Hermann fully supports local governments in their efforts to impact these issues.</td>
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<tr>
<td>Increased access to transportation</td>
<td>Not Applicable</td>
<td>The need for “increased access to transportation,” is not addressed due to the fact that transportation is not a core business</td>
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<td>CHNA PRIORITIES</td>
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<td>function of Memorial Hermann and the limited capacity of each hospital to address those needs. Furthermore, the hospitals do not have the expertise to address access to transportation and the system views this issue as a larger city and county infrastructure related concern. Memorial Hermann fully supports local governments in their efforts to impact these issues.</td>
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## APPENDIX B. FOCUS GROUP AND KEY INFORMANT ORGANIZATIONS

### Organizations Involved in Focus Group Recruitment by Population Segment

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

ACCESS Health (FQHC)                                                      Interfaith Ministries of Greater Houston
Asian American Health Coalition                                            LoneStar Family Health Center
Association for the Advancement of Mexican Americans                     Mayor’s Office for People with Disabilities
Blue Cross Blue Shield                                                    Memorial Hermann Texas Medical Center
Children at Risk                                                          Memorial Hermann Health System
Childrens Defense Fund                                                     Office of Harris County Judge Ed Emmett
Christ Clinic                                                              One Voice Texas
City of Houston, Department of Neighborhoods                              Pasadena Independent School District
City of Houston, Department of Parks and Recreation                      SETRAC (Southeast Texas Regional Advisory Council)
Community Health Choice                                                    Sheltering Arms Senior Services, Neighborhood Centers Inc.
Fort Bend Health and Human Services                                       Southwest Management District
Harris County Public Health and Environmental Services                   Texas Legislature
Harris Health                                                              The Harris Center for Mental Health and IDD (MHMRA)
Houston Independent School District                                       Tri County Services
Institute for Spirituality and Health                                      United Way of Montgomery County
Interfaith Community Clinic                                               University of Texas School of Public Health
APPENDIX C. 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 D. 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?
  - What do you consider to be the community’s strongest assets/strengths?
    - What are some of its biggest concerns/issues in general? What challenges do residents face day-to-day?
  - 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.
- Does [NAME OF COUNTY] have any programs that promote healthy lifestyles? (Prompt for nutrition, exercise.) If yes:
  - Do you think these programs are adequate? What is needed to improve these programs?
  - Which populations are most vulnerable or at risk for unhealthy lifestyles?
  - How do residents obtain information about these programs?
  - 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]

3. 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.]

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

   5. 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 TRANSPORTATION, CHILD CARE, ETC.]

- What programs, services, or policies are you aware of in the community that address access to care?
- 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?
  - 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:

**Deborah Ganelin**  
Associate Vice President, Community Benefit Corporation  
Email: Deborah.Ganelin@memorialhermann.org  
909 Frostwood Avenue, Suite 2.205  
Houston, TX 77024