Memorial Hermann Health System

Memorial Hermann Memorial City Medical Center Community Health Needs Assessment 2016

June 8, 2016





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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 Memorial City Medical Center (MH Memorial City). 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, and select strategies and identify partners to address these priority issues across the community. This report provides an overview of key findings from MH Memorial City 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 Memorial City area and from within MH Memorial City's diverse community. The community defined for this CHNA included the cities and towns of Houston, Katy, and Cypress within the counties of Harris and Fort Bend.

Key Findings

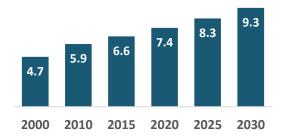
The following provides a brief overview of key findings that emerged from this assessment.

Community Social and Economic Context

Population Growth and Size: Between the time periods of 2005-2009 and 2010-2014, the population of both Harris and Fort Bend Counties increased, with Fort Bend County experiencing a slightly higher (3.9%) growth rate than Harris County (2.1%). Houston (population: 2,167,988) was the most populous city across the two counties served by MH Memorial City and experienced a slight decline in population (-1.1%) between the time periods 2005-

2010 and 2010-2014. Katy (population: 15,071) increased by 9.2% over this time period. The Houston metropolitan area, which includes MH Memorial City, is projected to increase from 5.9 million in 2010 to 9.3 million in 2030.

PROJECTED TOTAL POPULATION IN MILLIONS, GREATER HOUSTON METROPOLITAN AREA, 2010-2030



- Age Distribution: In both counties served by MH Memorial City, over one quarter of the population is under the age of 18, with Fort Bend County (29.1%) having a slightly higher proportion of residents under the age of 18 than Harris County (27.8%). Both counties have a similar proportion of people 65 years of age, about 8%. In Houston and Katy, about one quarter of the population is under the age of 18. Katy has a higher proportion of residents (12.0%) over the age of 65 than Houston (9.3%).
- Racial and Ethnic Distribution: Harris and Fort Bend differ somewhat in the racial and ethnic backgrounds of their residents, although both have diverse populations. Harris County (41.1%) had a higher proportion of residents who self-identified as Hispanic than Fort Bend County (23.9%). Fort Bend County, by contrast, had a higher proportion of residents who identified as Asian, non-Hispanic (17.4%) than Harris County (6.3%). The proportion of Black, non-Hispanic residents was similar in the two Counties, 18.5% of Harris County residents and 21.0% of Fort Bend County residents. In both counties, about one third of the population was comprised of residents who self-reported their racial and ethnic identity as White, non-Hispanic. The populations of Houston and Katy substantially differed. In Katy, almost two-

- thirds of residents (62.1%) identified as White, non-Hispanic while only 25.8% of Houston's residents did. Hispanics comprised 43.6% of Houston's population and 32.5% of Katy's population. The proportion of Black, non-Hispanic residents was far higher in Houston (23.0%) than in Katy (3.0%) as was the proportion of Asian, non-Hispanic residents (6.2% and 2.1%, respectively).
- **Linguistic Diversity and Immigrant** Population: In Harris County, 80% of non-English speakers spoke Spanish at home and about 7% spoke Vietnamese or Chinese. A wider range of languages was spoken in Fort Bend County. While about half of non-English speakers in the County spoke Spanish, about 20% spoke an Asian language at home. In Houston and Katy, Spanish was spoken by over 80% of residents who spoke a non-English language. One in four residents in Harris and Fort Bend Counties and in Houston were foreign-born, whereas 16.4% of Katy residents were foreign-born. From 2000 to 2013, Houston's immigrant population grew nearly twice the rate of the national average: 59% versus 33% in the United States.

Houston has one of the largest immigrant populations in the United States.

- Income and Poverty: Median household income was higher in Fort Bend County (\$85,297) than in Harris County (\$53,137). The median household income in Katy (\$68,953) was higher than in Houston (\$45,010). Harris (15.1%) County had a higher proportion of adults below the poverty line than Fort Bend County (7.1%). The percent of adults below the poverty line in 2009-2013 was higher in Houston (18.6%) than in Katy (9.4%).
- Employment: Unemployment rates for Texas and all three counties served by MH Memorial City peaked in 2010 but have decreased consistently over the past five years. In 2014, unemployment was 5.7% for

- Harris County and 4.5% for Fort Bend County.
- Education: A higher proportion of residents in Harris County (44.8%) than in Fort Bend County (29.9%) had a high school degree or less. The proportion of residents with a college degree or higher is far smaller in Harris County (28.4%) than in Fort Bend County (41.4%). Houston has both a higher proportion of adult residents with a high school degree or less (47.1%) and a Bachelor's degree or more (29.2%) when compared to Katy (40.4% and 27.4%, respectively).
- Housing: The monthly median housing costs for homeowners in Harris County (\$1,232) was lower than for homeowners in Fort Bend County (\$1,590) and costs for renters was also lower in Harris County (\$880) than in Fort Bend County (\$1,167). Housing costs were slightly lower in Houston (\$1,479 for homeowners and \$848 for renters) than in Katy (\$1,644 for homeowners and \$991 for renters). In both counties and the two cities, a higher percent of renters compared to homeowners paid 35% or more of their household income towards their housing costs.
- Transportation: The vast majority of residents in the counties and municipalities served by MH Memorial City commute to work by driving in a car, truck or van alone. Among the municipalities, Houston has the highest percentage of workers who commute by public transportation (4.3%).

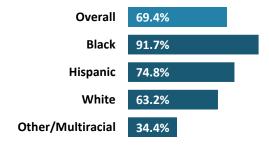
"Transportation is a huge issue. It takes so long to commute."

• Crime and Violence: Rates of both violent and property crime were higher in Harris County than in Fort Bend County. The violent crime rate was higher in Houston (954.8 offenses per 100,000 population) than in Katy (203.4 offenses per 100,000 population). The property crime rate was also higher in Houston (4,693.7 offenses per 100,000 population) than in Katy (3,432.2 offenses per 100,000 population).

Health Outcomes and BehaviorsPhysical Health

• Overall Leading Causes of Death: Harris County experienced a higher overall mortality rate (737.8 per 100,000 population) than Fort Bend County (599.6 per 100,000 population). Similarly in 2013, Harris County had higher mortality rates in all top leading causes of mortality—which includes heart disease, cancer, stroke, chronic lower respiratory disease, and accidents—compared to Fort Bend County. Suicide is more common among people over the age of 45. In both counties, the suicide rate for this age group is higher than among younger residents.

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



- Overweight and Obesity: In 2013, the percentage of Harris County residents reported that they were overweight or obese was 69.4%. (Data is unavailable for Fort Bend County.) Nine out of ten (91.7%) Black, non-Hispanic adult residents in Harris County are considered overweight or obese. Overall, about one-third of Houston high school students were considered overweight (16.3%) or obese (17.9%) in 2013.
- Diabetes: In Harris County in 2014, 10.4% of adults self-reported to have been diagnosed with diabetes. (Data is unavailable for Fort Bend County.) In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes.
- 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 3.6% of adults in Harris County selfreported having a heart attack during the past year. (Data is unavailable for Fort Bend

- 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%). (Data is unavailable for Fort Bend County.)
- Asthma: In 2012, adult hospital discharges for asthma were 8.4 per 10,000 population in Harris County and 5.7 per 10,000 population in Fort Bend 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 10,000 population).
- Cancer: Harris County had a higher cancer incidence rate (444.1 per 100,000 population) compared to Fort Bend County (409.4 per 100,000 population) in 2008. Harris County also had a higher rate of cancer mortality (163.4 versus 133.9 per 100,000 population). In a 2014 Behavioral Risk Factor Surveillance 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 in the past three years.
- HIV and Sexually-Transmitted Diseases:
 Rates of sexually transmitted diseases—
 chlamydia, gonorrhea, and syphilis—were
 markedly higher in Harris County compared
 to Fort Bend County in 2014. The chlamydia
 rate in Harris County was over twice as high
 as in Fort Bend County while gonorrhea and
 syphilis cases were over three times higher
 in Harris County than in Fort Bend County.
 From 2011 to 2014, chlamydia, gonorrhea,
 and syphilis case rates have increased in
 both counties.
- Tuberculosis: The rate of tuberculosis in Harris County (7.2 per 100,000 population) was over twice the rate in Fort Bend County (2.8 per 100,000 population).
- Influenza: In 2014, 35.9% of adults self-reported as receiving 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. (Data on influenza is unavailable for Fort Bend County.)

- Oral Health: In the two counties served by MH Memorial City, residents' access to dentists was similar: in Harris County, there were 57.4 dentists per 100,000 population in 2014 and in Fort Bend County there were 56.9 dentists per 100,000 population). Hispanic adults in Harris County reported the lowest rate of annual dental visitation (50.6%).
- Maternal and Child Health: Approximately one in ten babies born in both Harris (11.8%) and Fort Bend (11.5%) Counties were premature in 2013. The proportion of babies born with low birthweight was higher in Fort Bend County (9.3%) than in Harris County (8.6%). In both counties, babies who are Black were more likely to be born low birthweight than babies of other races and ethnicities. The rate of teen births in Harris County (2.8%) was over twice as high as the rate in Fort Bend County (1.2%). Births to Hispanic teen mothers was higher than those to White or Black mothers in the two counties. In 2013, 56.1% in Harris County live births and 62.8% in Fort Bend County live births occurred to mothers who received prenatal care in their first trimester. Rates of receiving no prenatal care were 3.9% and 1.9% for Harris and Fort Bend County mothers, respectively.

Health Behaviors

- Food Access: In Harris County more than a quarter of all children (i.e., those under age 18) were considered to be food insecure; in Fort Bend County, about 20% of children were considered food insecure. Residents of Harris County had greater access to a grocery store (19 grocery stores per 100,000 population) than those in Fort Bend County (15 grocery 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. 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. 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. 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.
- Youth Mental Health: Among youth in Houston in 2013, one-third of Hispanic high school students self-reported feeling sad or hopeless for two or more weeks in the past year, and 12.1% of Hispanic Houston high school students self-reported they attempted suicide at least once in the past year. Over a tenth (11.3%) of Black, non-Hispanic Houston high students selfreported a suicide attempt.
- 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. Harris County had a higher rate of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (66.9 per 100,000 population) than Fort Bend County (45.6 per 100,000 population). Just under two-thirds (63%) of Houston high school students self-reported lifetime substance use of alcohol, followed by marijuana (44%), and tobacco (43%).

Health Care Access and Utilization

Health Insurance: Uninsurance rates
decreased for Harris and Fort Bend counties
following the passage of the Affordable
Care Act in 2010. Harris County had higher
rates of uninsurance than Fort Bend County
during the 2009-2014 period. In 2014,
22.0% of the total population in Harris
County was uninsured compared to 12.1%

in Fort Bend County. In 2013, the zip codes in the Houston (Harris County) geographic area around the MH Memorial City facility had the highest rates of uninsurance for the total population. Among the zip codes served by MH Northeast, 203,778 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77036 in Houston (20,058 enrollees). In Fort Bend County, the only zip code represented in MH Memorial City's community was 77494 in Katy (2,608 enrollees).

- Access to Primary Care: In 2014, Harris County had a higher number of primary care physicians (82.6 per 100,000 population) compared to Fort Bend County (59.9 per 100,000 population). In Harris County, 38.2% of adult residents selfreported that they did not have a doctor or health care provider. In the Houston-The Woodlands-Sugar Land MSA in 2014, 34% of physicians accepted all new Medicaid patients, 24% limited their acceptance of new Medicaid patients, and 42% accepted no new Medicaid patients. In Harris County in 2014, 37% of physicians accepted all new Medicaid patients, 23% limited their acceptance of new Medicaid patients, and 40% accepted no new Medicaid patients. (Data on Medicaid acceptance is unavailable for Fort Bend County due to a low survey response rate.)
- Emergency Department Care at MH Memorial City for Primary Care Treatable Conditions: Of MH Memorial City's 52,549 ED visits in 2013, 49.2% were from patients who were uninsured or on Medicaid, and 32.7% were classified as non-emergent or with primary care treatable conditions. Of all ED visits, 6.3% were for chronic conditions. All 20 zip codes in the MH Memorial City's CHNA-defined community matched the top 20 zip codes for the highest number of primary care treatable ED visits at the MH Memorial City in 2013.
- Inpatient Care at MH Memorial City for Ambulatory Care Sensitive Conditions: Of MH Memorial City's 22,097 inpatient discharges in 2015, 8,735 inpatient discharges or 35.9% were related to an ambulatory care sensitive condition. The top four ambulatory care sensitive

conditions that resulted in inpatient care at MH Memorial City in 2015 were diabetes (168 discharges), congestive heart failure (143 discharges), and cellulitis (95 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 Harris County and Houston. The health care system is also described as having a strong community health system in addition to world-class acute care.
- Strong Public Health and Social Service
 System: Houston is 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: Houston has 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 Greater Houston region.

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 problems in Harris and Fort Bend
 Counties, 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 Harris County and
 Fort Bend County. Stakeholders described
 existing strategies such as community
 health workers should be expanded.
- Expand Access to Behavioral Health
 Services: Informants identified behavioral
 health care access as being a major unmet
 need in Harris and Fort Bend Counties.
- 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 Harris and Fort Bend Counties.

Key Themes and Conclusions

- Harris and Fort Bend Counties differ in terms of demographics and population health needs. Both Harris and Fort Bend have racially and ethnically diverse populations. The counties differ, however, in other respects. Residents of Fort Bend tend to have higher levels of household income and education, and they also have lower levels of mortality, fewer incidences of chronic disease, and lower rates of HIV and other sexually transmitted infections. While Harris County experiences more challenges in terms of population health than residents in Fort Bend, it also has more accessible social and health resources and better public transportation for its residents.
- The increase in population over the past five years has placed a 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' ability to navigate an increasingly
 complex healthcare 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 dessert or having limited access to sidewalks, recreational facilities, or affordable fruits and vegetables. While several initiatives in the region are trying to address this issue, there appears ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, youth).
- Behavioral health was identified as a key concern among residents. Stakeholders highlighted significant unmet needs for mental health and substance abuse services in Harris County and Houston. Key informants particularly drew attention to the burden of mental illness on the incarcerated population. Findings from this current assessment process illustrate the importance of pursing innovative strategies to address behavioral health issues, such as those programs that are part of the Texas Section 1115 Medicaid demonstration waiver.
- The communities served by MH Memorial City have many health care assets, but access to those services is a challenge for some residents. Transportation to health services was identified as a susbstantial concern, especially for seniors and lower income residents, as access to public

transportation may be limited in some areas. 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 participating 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 Memorial City Medical Center

Located in the heart of west Houston, Memorial Hermann Memorial City Medical Center (hereafter MH Memorial City) has been serving area families since 1971. A 426-bed facility, MH Memorial City has been named one of the nation's 100 Top Hospitals by Truven Analytics, one of only two hospitals in Houston. Since 2009, MH Memorial City has been recognized for the quality of its nursing by the American Nurses Credentialing Center Magnet Recognition Program. The recently-built Memorial Hermann Tower includes Women's Memorial Hermann and Children's Memorial Hermann.

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 significant 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, particularly in the area of healthy living.

Purpose of Community Health Needs Assessment

As a way to ensure that MH Memorial City is achieving its mission and meeting the needs of the community, and in furtherance of its obligations under the Affordable Care Act, MHHS undertook a community health needs assessment (CHNA) process in the spring of 2016. Health Resources in

Action (HRiA), a non-profit public health consultancy organization, was engaged to conduct the CHNA.

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

- To examine the current health status of MH Memorial City's communities and its subpopulations, and compare these rates to city/town, county, and state indicators
- To explore the current health priorities—as well as new and emerging health concerns—among residents within the social context of their communities
- To identify community strengths, resources, and gaps in services in order to help MH Memorial City, 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 Memorial City defines its community geographically as the top 75% of zip codes corresponding to inpatient discharges in fiscal year 2015. These selected zip codes correspond to the communities of Cypress, Houston, and Katy within the counties of Fort Bend and Harris. As shown in TABLE 1, a large majority of MH Memorial City inpatient discharges in fiscal year 2015 occurred to residents of Harris County (97.4%); only a small fraction of inpatient discharges occurred to residents of Fort Bend County (2.6%). At a city level, most MH Memorial City inpatient discharges occurred to residents of Houston (87.1%) followed by Katy (9.6%). FIGURE 1 presents a map of MH Memorial City's CHNA defined community by zip code.

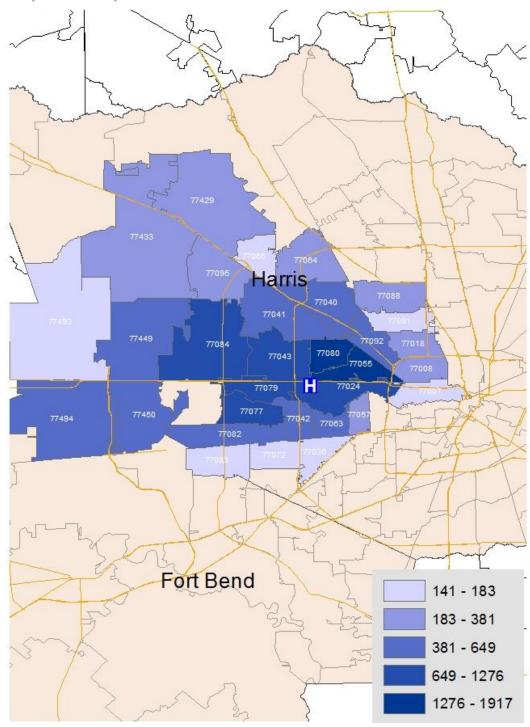
TABLE 1. NUMBER AND PERCENT OF INPATIENT DISCHARGES REPRESENTING THE TOP 75% OF ZIP CODES SERVED BY MH MEMORIAL CITY, BY COUNTY AND CITY, FISCAL YEAR 2015

Geography	# inpatient discharges	% inpatient discharges
Harris County	16,020	97.4%
Fort Bend County	421	2.6%
Houston	14,323	87.1%
Katy	1,571	9.6%
Cypress	547	3.3%

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

FIGURE 1. NUMBER OF INPATIENT DISCHARGES REPRESENTING THE TOP 75% OF ZIP CODES SERVED BY MH MEMORIAL CITY, BY ZIP CODE, FISCAL YEAR 2015



Zip codes

77080, 77055, 77077, 77024, 77043, 77079, 77084, 77042, 77063, 77041, 77449, 77040, 77092, 77082, 77450, 77494, 77095, 77057, 77433, 77088, 77008, 77064, 77018, 77429, 77083, 77007, 77072, 77493, 77065, 77036, 77091

Cities and towns

Cypress, Houston, and Katy

Counties

Fort Bend and Harris Counties

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 Memorial City's community.

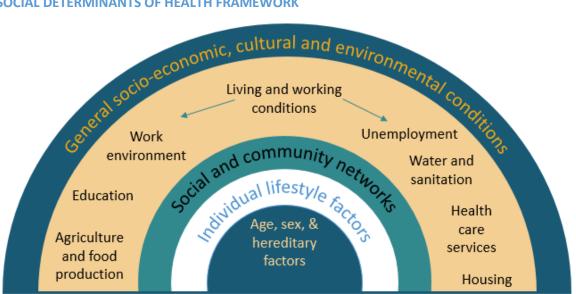


FIGURE 2. SOCIAL DETERMINANTS OF HEALTH FRAMEWORK

SOURCE: World Health Organization, Commission on the Social Determinants of Health, Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health, 2005. Graphic reformatted by Health Resources in Action.

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

Qualitative Data

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

Secondary data were supplemented by focus groups and interviews. In total, 11 focus groups and 27 key informant discussions were conducted with individuals from MH Memorial City's community from October 2015 through February 2016. Focus groups were held with 93 community residents drawn from the region. 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-American community members
- Low-income community members from urban area
- Low-income community members from suburban area
- Low-income community members from rural area
- Community members of moderate to high socioeconomic status

Twenty-seven key informant discussions were conducted with individuals representing the MH Memorial City 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., seniors representing the MH Memorial City community).

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 Memorial City 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 Memorial City. Key informants were recruited by HRIA, working from recommendations provided by MHHS and MH Memorial City.

Analysis

The collected qualitative data were coded using NVivo qualitative data analysis software and analyzed thematically for main categories and subthemes. 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 Memorial City 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 Memorial City's community. Selected paraphrased quotes without personal identifying information - are presented in the narrative of this report to further illustrate points within topic areas.

Limitations

As with all data collection efforts, there are several limitations related to the assessment's research methods that should be acknowledged. Years of the most current data available differ by data source. In some instances, 2013 may be the most current year

available for data, while 2009 or 2010 may be the most current year for other sources. Some of the secondary data were not available at the county level. Additionally, several sources did not provide current data stratified by race and ethnicity, gender, or age —thus these data could only be analyzed by total population. Finally, youth-specific data were largely not available, and in cases where such data were available, sample sizes were often small and must be interpreted with caution.

Likewise, secondary survey data based on selfreports, such as the Behavioral Risk Factor Surveillance Survey (BRFSS) and the Texas Behavioral Risk Factor Surveillance System, should be interpreted with particular caution. In some instances, respondents may over- or underreport behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias—that is, they may attempt to answer accurately, but they remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the selfreport 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 Memorial City Community

The health of a community is associated with numerous factors including what resources and services are available (e.g., safe green space, access to healthy foods) as well as who lives in the community. Focus group participants and key informants described many assets of the MH Memorial City community, particularly the diversity of the population. Over the past two decades, the communities served by MH Memorial City have experienced population growth and economic transformation. Houston, a vibrant urban area, is the fourth largest city in the U.S. (trailing only New York, Los Angeles and Chicago). The communities served by MH Memorial City boast an exciting cultural diversity, including large Hispanic and Asian American populations. The area has undergone substantial construction to keep up with population growth.

Who lives in a community is significantly 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. The two counties served by MH Memorial City have experienced an increase of population over several years, affecting the demand for resources by residents. Interview and focus group participants frequently noted that the communities served by MH Memorial City 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, crime, and violence. The section below provides an overview of the socioeconomic context of MH Memorial City's community.

Population Size and Growth

According to the American Community Survey (ACS), the Texas population increased by 9.5%—from 23,819,042 in 2005-2009 to 26,092,033 in 2010-2014 (TABLE 2). The total population across the two counties served by MH Memorial City was 4,902,554 based on 2010-2014 ACS estimates, 18.8% of Texas' total population. Between the time periods 2005-2010 and 2010-2014, the population

of both Harris and Fort Bend Counties increased, with Fort Bend County experiencing a slightly higher (3.9%) growth rate than Harris County (2.1%). Houston (population: 2,167,988) was the most populous city across the two counties served by MH Memorial City and experienced a slight decline in population (-1.1%) between the time periods 2005-2010 and 2010-2014. The city of Katy (population: 15,071) increased by 9.2% over this time period.

TABLE 2. POPULATION SIZE AND GROWTH ESTIMATES, BY STATE, COUNTY, AND CITY/TOWN, 2005-2009 AND 2010-2014

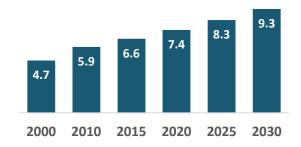
			%
Geography	2005-2009	2010-2014	change
Texas	23,819,042	26,092,033	9.5%
Harris County	4,182,285	4,269,608	2.1%
Fort Bend County	608,939	632,946	3.9%
Houston	2,191,400	2,167,988	-1.1%
Katy	13,803	15,071	9.2%

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2005-2009 and 2010-2014

NOTE: Data not available for Cypress

Focus group participants and key informants reported that the area served by MH Memorial City is experiencing population growth, a trend that makes the community 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, some from overseas, coming for jobs. Focus group participants reported that population influx has had an effect on their community. As one mentioned, "Highways are continually growing. There are so many developments." Rapid population growth in the Greater Houston area is a trend likely to continue well beyond this decade. The Houston metropolitan area is projected to increase from 5.9 million in 2010 to 9.3 million in 2030 (FIGURE 3).

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



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

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

*Houston-The Woodlands-Sugar Land metropolitan statistical area is a nine-county area as defined by the Office of Management and Budget, which includes Harris and Fort Bend Counties but not Wharton County

Age Distribution

As populations age, the needs of the community shift based on increased overall need for health care services. The communities served by MH

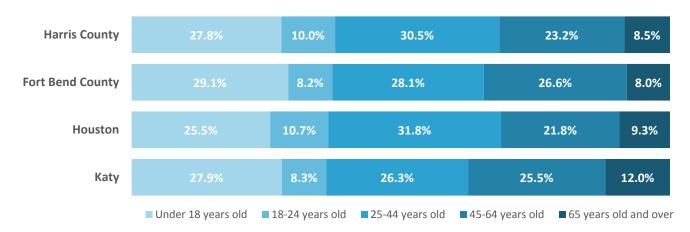
"My neighborhood is diverse in terms of age. There are some seniors, but also a lot of working young people."

Focus group participant

Memorial City 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 the age distribution of MH Memorial City's community at the county and city levels. In both counties served by MH Memorial City, over one-quarter of the population is under the age of 18, with Fort Bend County (29.1%) having a slightly higher proportion of residents under the age of 18 than Harris County (27.8%). Both counties have a similar proportion of people 65 years of age, about 8%. In Houston and Katy, about one-quarter of the population is under the age of 18. Katy has a higher proportion of residents (12.0%) over the age of 65 than Houston (9.3%).

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



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

NOTE: Data not available for Cypress

Racial and Ethnic Distribution

Due to a number of complex factors, people of color experience high rates of health disparities across the United States. As such, examining outcomes by race and ethnicity is an important lens through which to view the health of a community.

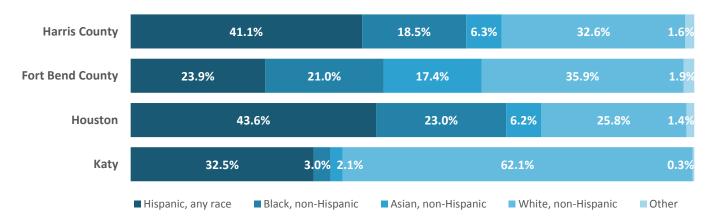
Qualitative and census data demonstrate the broad diversity of the population served by MH Memorial City in terms of racial and ethnic composition. Focus group participants and key informants frequently described the racial and ethnic distribution of their community as diverse. One focus group participant reported, "It's a whole melting pot here." Respondents viewed diversity as a substantial strength, such as one key informant who stated, "I think it is our diversification...of cultures. We are a very diverse community, and I think it gives our region great opportunity." However, focus group members and interviewees also noted that some groups face challenges, including language isolation and cultural and other barriers to accessing health and social services. As another key informant explained, "Lack of options for immigrants is a big issue that is hard to quantify." Several informants reported a growth in the number of undocumented people in the region, who were described as particularly vulnerable.

Harris and Fort Bend Counties differ somewhat in the racial and ethnic backgrounds of their residents, although both have diverse populations. Harris "Houston is an extremely diverse community."

Key informant interviewee

County (41.1%) had a higher proportion of residents who self-identified as Hispanic than Fort Bend County (23.9%). Fort Bend County, by contrast, had a higher proportion of residents who identified as Asian, non-Hispanic (17.4%) than Harris County (6.3%). The proportion of Black, non-Hispanic residents was similar in the two Counties, 18.5% of Harris County residents and 21.0% of Fort Bend County residents. In both counties, about one third of the population was comprised of residents who self-reported their racial and ethnic identity as White, non-Hispanic. The populations of Houston and Katy substantially differed. In Katy, almost twothirds of residents (62.1%) identified as White, non-Hispanic while only 25.8% of Houston's residents did. Hispanics comprised 43.6% of Houston's population and 32.5% of Katy's population. The proportion of Black, non-Hispanic residents was far higher in Houston (23.0%) than in Katy (3.0%), as was the proportion of Asian, non-Hispanic residents (6.2% and 2.1%, respectively). FIGURE 5 illustrates the racial and ethnic distribution of the communities served by MH Memorial City.

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



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; data not available for Cypress

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.

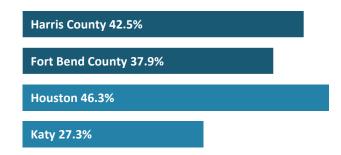
"A lot of dialects and languages [are] spoken here."

Key informant interviewee

MH Memorial City serves a community that speaks many languages other than English. Many (42.5%) of Harris County residents and 37.9% of Fort Bend County residents spoke a language other than English at home (FIGURE 6). In Houston, over 40% of residents spoke a language other than English at home while in Katy, 27.3% of residents spoke a language other than English at home. One key informant described this linguistic diversity as presenting challenges for the health care system: "The diversity [of languages] can be one of our greatest assets, though also there can be challenges. Many languages and dialects can lead to challenges. It creates a need to meet the health needs of a diverse group."

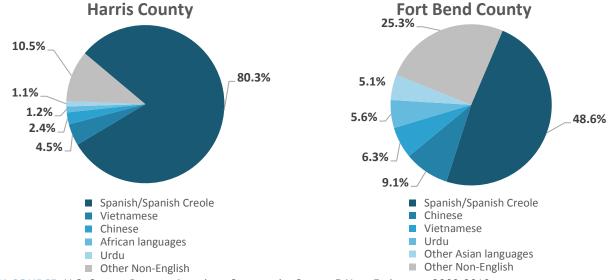
FIGURE 7 shows the top five non-English languages spoken by county. There is less language diversity in Harris County, where 80% of non-English speakers spoke Spanish at home and about 7% spoke Vietnamese or Chinese, compared to Fort Bend County. In Fort Bend County, about half of non-English speakers spoke Spanish and about 20% spoke an Asian language at home. In Houston and Katy, the two cities that comprised 96.7% of MH Memorial City's patients in 2015, Spanish was spoken by over 80% of residents. Those who spoke Vietnamese or Chinese comprised 6.3% of the population of Houston and those who spoke Chinese or Tagalog comprised 4.3% of Katy's population (data not shown).

FIGURE 6. PERCENT POPULATION OVER 5 YEARS WHO SPEAK LANGUAGE OTHER THAN ENGLISH AT HOME, BY COUNTY AND CITY, 2009-2013



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013 NOTE: Data not available for Cypress

FIGURE 7. TOP FIVE NON-ENGLISH LANGUAGES SPOKEN, BY COUNTY, 2009-2013

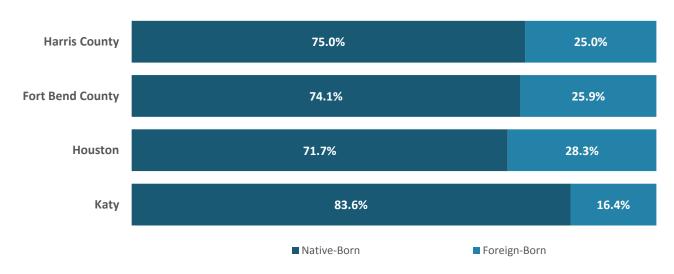


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

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 immigrant groups originate from Mexico and Vietnam, whereas the newest immigrant groups originate from Guatamala and Honduras. Informants described the MH Memorial City community as a collection of immigrants from

both within and outside of the United States, including more transitional individuals from other countries coming for jobs. One in four residents in Harris and Fort Bend Counties and in Houston were foreign-born, whereas 16.4% of Katy residents were foreign-born (FIGURE 8). According to the Texas Refugee Health Program Refugee Health Report, 5,285 refugees resettled in Harris County in 2014, with Harris County having one of the largest refugee populations in the United States.

FIGURE 8. NATIVITY, BY COUNTY AND CITY, 2009-2013



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013 NOTE: Data not available for Cypress

Income and Poverty

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

Focus group participants and key informant interviewees alike reported that the region served by MH Memorial City includes both wealthier and lower income individuals. As one informant described, "[Houston] is very sprawled out and somewhat segregated because of it. There are areas of Houston that are very, very poor and then you can throw a rock and in that distance the area becomes extremely affluent and wealthy." Themes emerging in focus group discussions and interviewees included the challenges low-income residents face paying rent, buying nutritious food, and paying for health insurance and health care. A health care provider key informant highlighted how these choices affect the emergency care system in the community: "A lot of times a patient is not going to take care of themselves if they have no shelter; they may want to put food on table instead of see the doctor, and then they get to the ER. It's a vicious cycle." 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."

"[It is a] diverse community. [It] ranges from billionaires to people who don't have plumbing."

Key informant interviewee

Data from the 2009-2013 American Community Survey show that the median household income in the two counties served by MH Memorial City differed. Median household income was far higher in Fort Bend County (\$85,297) than in Harris County (\$53,137). The median household income in Katy (\$68,953) was higher than in Houston (\$45,010) (FIGURE 9).

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

Harris County \$53,137

Fort Bend County \$85,297

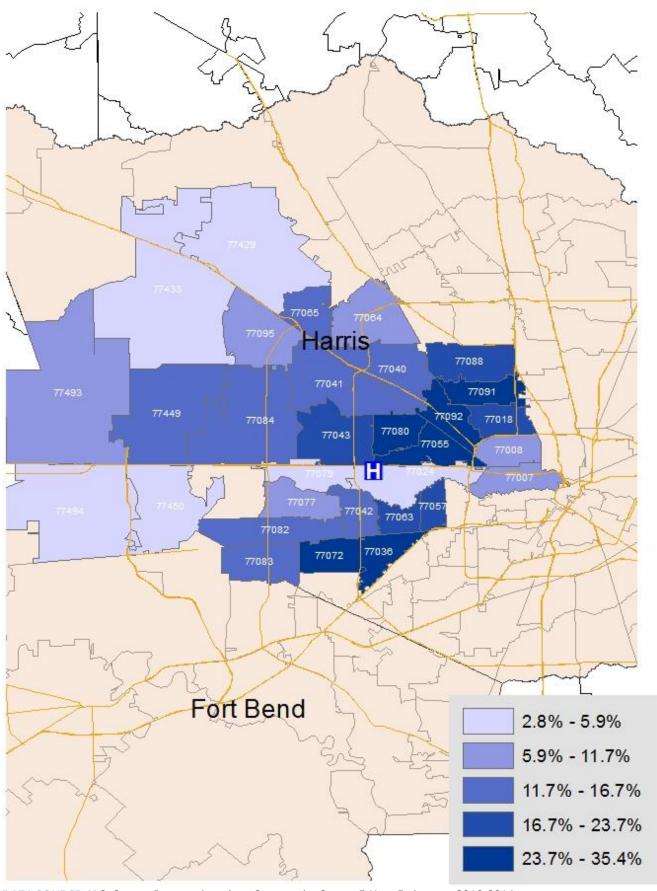
Houston \$45,010

Katy \$68,953

DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013 NOTE: Data not available for Cypress

FIGURE 10 shows the percent of adults below the poverty line in 2009-2013. Harris County (15.1%) had a higher proportion of adults below the poverty line than Fort Bend County (7.1%). The percent of adults below the poverty line in 2009-2013 was higher in Houston (18.6%) than in Katy (9.4%).

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



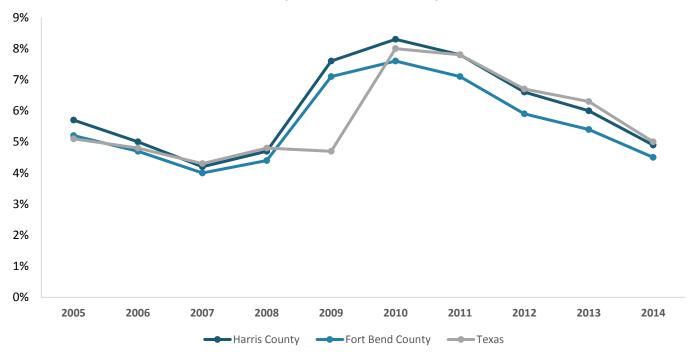
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2010-2014

Employment

Employment status also can have a significant impact on one's health. Many focus group participants and key informant interviewees reported that the economic outlook of the Greater Houston area 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. As one interviewee noted, "Every day in the

newspaper, you read about a company going under and employees losing jobs." Some respondents expressed particular concern about low-wage workers—those who work multiple jobs, are often undocumented, and most often have no health insurance. Data from the American Community Survey show that the unemployment rates for Texas and both counties served by MH Memorial City peaked in 2010 but have decreased consistently over the past five years (FIGURE 11).

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



DATA SOURCE: Bureau of Labor Statistics, Local Area Unemployment Statistics, Labor force data by county; and Bureau of Labor Statistics, Current Population Survey, Annual Averages, 2005-2014

Education

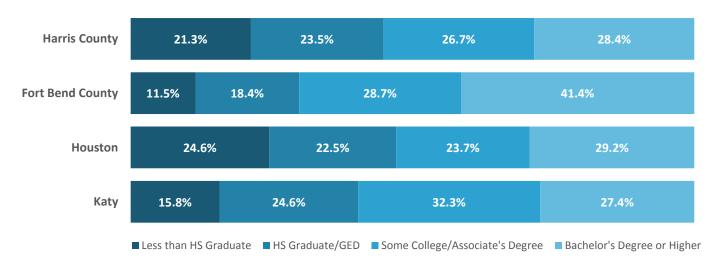
Educational attainment is often associated with income, and higher educational achievement is linked with greater health literacy. Interview and focus group participants described MH Memorial City's residents as "creative" and working in a wide range of professions. Perceptions of schools in the region were mixed. While some focus group members and interviewees reported that the schools in the region are strong, others reported that educational quality and opportunity varied across the region. Of the two counties served by MH Memorial City, a higher proportion of residents in Harris County (44.8%) than in Fort Bend County (29.9%) had high school degree or less (FIGURE 12). The proportion of residents with a college degree or

"I do think Houston does a good job with caring for kids. Education is important here."

Key informant interviewee

higher is far smaller in Harris County (28.4%) than in Fort Bend County (41.4%). Houston has both a higher proportion of adult residents with a high school degree or less (47.1%) and a Bachelor's degree or more (29.2%) when compared to Katy (40.4% and 27.4%, respectively).

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



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

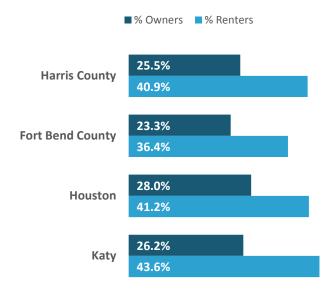
NOTE: Data not available for Cypress

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 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 expressed concern about there being 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." Some respondents reported that among minority populations, multi-generational families living together is more common but can contribute to overcrowding. In more urban areas, stakeholders reported there being a lot of apartment complexes where violence may be more likely to occur.

Housing costs differ between the two counties served by MH Memorial City, with Fort Bend County residents paying more for housing than those in Harris County. The monthly median housing costs for homeowners in Harris County (\$1,232) was lower than for homeowners in Fort Bend County (\$1,590) and costs for renters was also lower in Harris County (\$880) than in Fort Bend County (\$1,167) (data not shown). Housing costs were slightly lower in Houston (\$1,479 for homeowners and \$848 for renters) than in Katy (\$1,644 for homeowners and \$991 for renters). In both counties and the two cities, a higher percent of renters compared to homeowners paid 35% or more of their household income towards their housing costs (FIGURE 13).

FIGURE 13. PERCENT HOUSING UNITS WHERE OWNERS AND RENTERS HAVE HOUSING COSTS THAT ARE 35% OR MORE OF HOUSEHOLD INCOME, BY COUNTY AND CITY, 2013



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013 NOTE: Data not available for Cypress

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. As one interviewee explained, "Transportation will always be the biggest challenge, particularly for those with low SES [socioeconomic status]."

"Houston is booming—services, like transportation, haven't caught up."

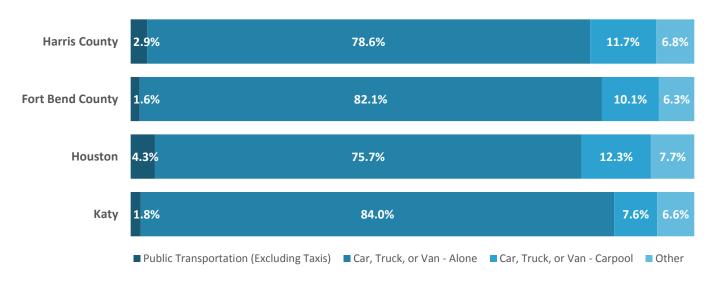
Focus group participant

There was conflicting feedback about the availability and quality of public transportation in Houston and the surrounding communities. One key informant reported: "Our public transportation is not good enough. It's a barrier." However, another informant shared the perspective that "transportation is pretty good, we have a very strong public transportation system." Additionally, several respondents reported that there are transportation options for disabled persons and seniors and a limited number of programs that offer transportation vouchers; however, respondents also reported wait times for services, requirements that rides be scheduled far in advance, and long travel times. When asked about active transportation options such as walking and biking, many respondents stated that concerns about

safety, in addition to lack of sidewalks and bike paths, presented barriers. Although one informant reported, "Houston is not a walking city," others shared that new initiatives are emerging to enhance the city's livability. Some interviewees, for example, mentioned the Mayor's initiative Go Healthy Houston which focuses on increasing access to healthy foods, physical activity, and tobacco-free places.

As reflected in the focus groups and interviews, the vast majority of residents in the counties and municipalities served by MH Memorial City commute to work by driving in a car, truck, or van alone (FIGURE 14). Among the municipalities, Houston has the highest percentage of workers who commute by public transportation (4.3%).

FIGURE 14. MEANS OF TRANSPORTATION TO WORK, BY COUNTY AND CITY, 2009-2013



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

NOTE: Data not available for Cypress

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. In some areas, crime was not described as a salient issue but in others, crime was top of mind. For example, one focus group participant from urban Houston reported, "We're very low crime," but another focus group participant from the same group reported, "There's gang violence as well, especially in [my neighborhood]." Focus group participants described a number of crimes affecting their community including burglary, drug use and dealing, human trafficking, and gang violence.

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

Key informant interviewee

Rates of both violent and property crime were higher in Harris County than in Fort Bend County (TABLE 3). The violent crime rate was higher in

Houston (954.8 offenses per 100,000 population) than in Katy (203.4 offenses per 100,000 population). The property crime rate was also higher in Houston (4,693.7 offenses per 100,000 population) than in Katy (3,432.2 offenses per 100,000 population).

TABLE 3. VIOLENT AND PROPERTY CRIME RATE PER 100,000 POPULATION, BY COUNTY AND CITY, 2014

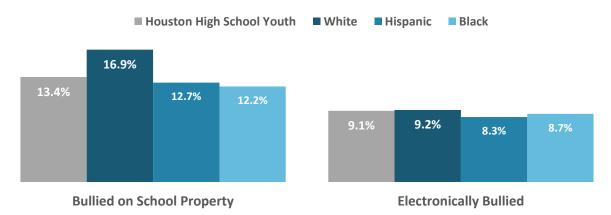
//		- /
Geography	Violent Crime Rate	Property Crime Rate
Harris County	691.4	3,825.0
Fort Bend County	197.1	1,391.3
Houston	954.8	4,693.7
Katy	203.4	3,432.2

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 Cypress.

Focus group participants and key informant interviewees did not specifically name bullying in schools or cyberbullying as major issues in their communities. According to the 2013 Centers for Disease Control and Prevention High School Youth Risk Behavior Survey, 13.4% of Houston high school students in grades 9 through 12 reporting being bullied on school property (FIGURE 15), and 9.1% reported being electronically bullied. Houston high school students self-identifying as White were more likely to self-report being bullied, either in school or online, than Hispanic or Black high school students.

FIGURE 15. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE BEEN BULLIED ON SCHOOL PROPERTY AND ELECTRONICALLY BULLIED IN PAST 12 MONTHS, BY RACE AND ETHNICITY, 2013



DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013 NOTE: There was insufficient sample size to report on other races and ethnicities

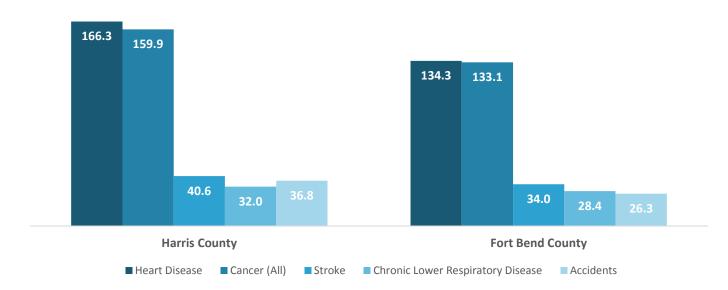
HEALTH OUTCOMES AND BEHAVIORS

People who reside in the communities served by MH Memorial City 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 Memorial City community described a high burden of chronic disease, particularly among lower income residents. From mortality to healthy living, this section provides a snapshot of health within the communities served by MH Memorial City.

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, Harris County experienced a higher overall mortality rate (737.8 per 100,000 population) than Fort Bend County (599.6 per 100,000 population) (data not shown). Similarly in 2013, Harris County had higher mortality rates in all top leading causes of mortality—which includes heart disease, cancer, stroke, and chronic lower respiratory disease—compared to Fort Bend County (FIGURE 16). TABLE 4 presents the leading causes of death by age and county in 2013.

FIGURE 16. LEADING CAUSES OF DEATH PER 100,000 POPULATION, BY COUNTY, 2013



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, BY COUNTY, 2013

		Harris	Fort Bend
		County	County
	Certain Conditions Originating in the Perinatal Period	347.5	208.2
Under 1 year	Congenital Malformations, Deformations and Chromosomal	133.9	122.5
	Abnormalities		
	Homicide	19.9	-
	Accidents	12.8	-
	Septicemia	8.5	-
	Cancer	4.4	-
	Accidents	4.1	-
1-4 years	Congenital Malformations, Deformations and Chromosomal Abnormalities	2.6	-
	Heart Disease	1.9	-
	Cancer	3.7	-
5-14 years	Accidents	2.8	-
3-14 years	Chronic Lower Respiratory Diseases	0.8	-
	Heart Disease	0.8	-
	Accidents	24.1	19.3
	Homicide	16.2	-
15-24 years	Suicide	8.6	8.6
	Cancer	4.8	-
	Heart Disease	2.3	-
	Accidents	24.7	26.2
	Homicide	14.9	11.0
25-34 years	Cancer	11.2	11.0
	Suicide	10.5	9.6
	Heart Disease	5.9	-
	Cancer	29.3	22.7
	Accidents	28.2	15.8
	Heart Disease	19.3	9.9
35-44 years	Suicide	11.1	11.1
	Homicide	9.8	-
	Chronic Liver Disease and Cirrhosis	*	4.9
	Cancer	95.5	62.5
	Heart Disease	82.2	46.4
45-54 years	Accidents	42.5	16.1
	Chronic Liver Disease and Cirrhosis	22.1	19.2
	Suicide	15.7	11.1
	Cancer	273.3	199.1
	Heart Disease	194.8	123.3
	Accidents	49.7	32.1
55-64 years	Stroke	39.5	*
•	Diabetes	38.2	*
	Chronic Liver Disease and Cirrhosis	*	19.3
		*	16.7
	Septicemia		- · · ·
	Septicemia Cancer	618.1	473.2
	Cancer	618.1 419.8	473.2 240.6
	Cancer Heart Disease	419.8	240.6
65-74 years	Cancer Heart Disease Chronic Lower Respiratory Diseases	419.8 97.9	240.6 59.5
65-74 years	Cancer Heart Disease	419.8	240.6

		Harris County	Fort Bend County
	Heart Disease	1,166.1	952.4
	Cancer	1,115.1	1,037.1
7F 94 years	Stroke	304.3	239.9
75-84 years	Chronic Lower Respiratory Diseases	274.6	204.6
	Septicemia	173.5	*
	Alzheimer's Disease	*	148.2
	Heart Disease	3,459.7	3,615.9
	Cancer	1,586.9	1,477.4
85+ years	Stroke	957.0	1,030.3
	Chronic Lower Respiratory Diseases	627.5	894.2
	Alzheimer's Disease	574.2	602.6

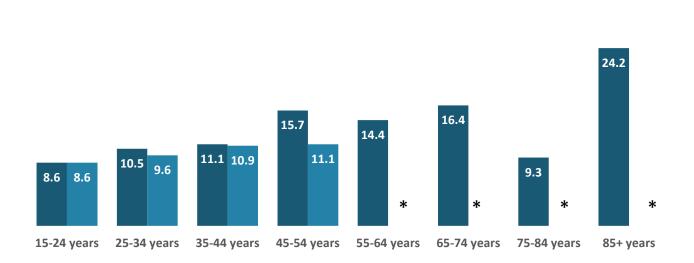
DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013 NOTE: Dash (-) denotes not in top 5 leading causes; Asterisk (*) denotes not in top 5 leading causes

The suicide rate for youth ages 15-24 years is the same in both Harris and Fort Bend Counties (8.6 per 100,000 population) (FIGURE 17). Among residents aged 45 to 54 years, Harris County residents had a higher rate of suicide (15.7 per 100,000 population) compared to Fort Bend County residents (11.1 per

100,000 population). In Harris County, the highest suicide rate in 2013 was among those residents aged 85 years or older (24.2 per 100,000 population). (Data unavailable on suicide for Fort Bend County for ages 55 and older due to unreliable estimates.)

FIGURE 17. SUICIDE MORTALITY RATE PER 100,000 POPULATION, BY AGE, BY COUNTY, 2013

■ Harris County



■ Fort Bend County

DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013 NOTE: Data for Fort Bend not reported due to unreliable rates (indicated with a * in the figure above)

Chronic Diseases and Related Risk Factors

Diet and exercise are risk factors for many chronic diseases. Access to healthy food and opportunities for physical activity depend on not only individual choices but also on the built environment in which we live, the economic resources we have access to, and the larger social context in which we 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

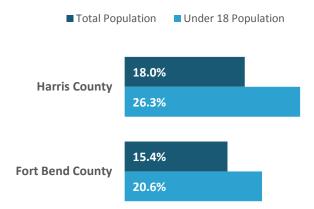
One of the most important risk factors for maintaining a healthy weight and reducing risk of cardiovascular disease is healthy eating habits, secured by access to affordable healthy foods.

Rates of food insecurity are higher in Harris County than Fort Bend and children are more likely to be food insecure than adults. In Harris County, more than a guarter or more of all children (i.e., those under age 18) were considered to be food insecure; in Fort Bend County, about 20% of children were considered food insecure (FIGURE 18). 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, 12.6% of families (or more than 1 in 6) received benefits from the Supplemental Nutrition Assistance Program (SNAP), the program providing nutritional

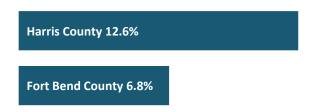
assistance for low-income families (FIGURE 19). In Fort Bend County, in 2013, 6.8% of families received SNAP benefits.

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



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

FIGURE 19. PERCENT HOUSEHOLDS RECEIVING SNAP BENEFITS, BY COUNTY, 2009-2013



DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013, as cited by Prevention Resource Center Regional Needs Assessment, 2015

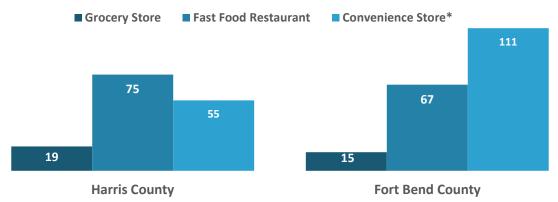
According to the U.S. Department of Agriculture, in 2013 residents of Harris County had greater access to a grocery store (19 grocery stores per 100,000 population) than those in Fort Bend County (15 grocery stores per 100,000 population) (FIGURE 20). Fort Bend County residents in 2012 had higher access to convenience stores (111 convenience stores per 100,000 population) compared to 55 convenience stores in Harris County. The prevalence of fast, convenient food was echoed by community residents and key informants such as one who stated, "You see a lot of corner stores with unhealthy food. We also don't have a good

transportation system in Houston, so it makes it a big deal trying to access somewhere else in the city." Harris County low-income residents had higher access to farmer's markets (13.7%) than those in Fort Bend County (10.4%) (data not shown). Among zip codes corresponding to MH Memorial City's community, Houston zip code 77036 had the highest number of calls (6,137) to the United Way Helpline related to food in 2014 (FIGURE 21).

"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."

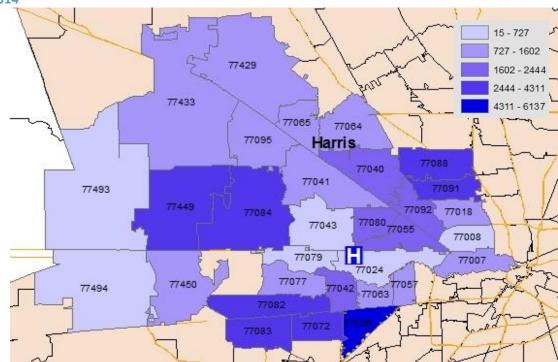
Key informant interviewee

FIGURE 20. ACCESS TO GROCERY STORES, FAST FOOD RESTAURANTS, AND CONVENIENCE STORES, PER 100,000 POPULATION, BY COUNTY, 2013



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

FIGURE 21. NUMBER OF FOOD-RELATED CALLS TO 2-1-1 UNITED WAY HELPLINE IN HARRIS COUNTY, BY ZIP CODE, 2014



DATA SOURCE: United Way of Harris County, 2014

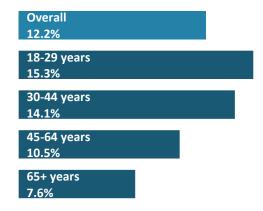
^{*}Convenience store data reflects 2012

Eating Behaviors

Eating healthy food promotes overall health. Focus group participants and key informant interviewees described healthy eating as a difficult habit to master. Poor access to healthy foods, the low cost of fast food, cultural food norms, and poor education about nutrition were cited across all 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. One key informant reported, "Frankly it is faster and cheaper to eat food that isn't good for you than it is to prepare healthy meals." Several respondents reported that this is a particular concern for lower income residents who face economic challenges to buying healthy foods as well as transportation challenges. 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 lack of knowledge about healthy eating and how to prepare healthy foods emerged as a key theme across several focus groups and interviewees. A critical need, therefore, according to respondents, is nutrition education.

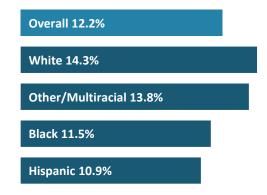
Surveys in Harris County reveal that only 12.2% of Harris County adults indicated that they ate fruits and vegetables five or more times per day (similar to the government recommendation (FIGURE 22). Adults who were younger (18-29 years old) had the highest percentage of respondents meeting this recommendation. When examining responses by race and ethnicity, 14.3% of Whites indicated this eating behavior compared to 11.5% of Blacks and 10.9% of Hispanics (FIGURE 23). Lower income Harris County adults ate fewer fruits and vegetables than residents with higher median household incomes (FIGURE 24).

FIGURE 22. PERCENT ADULTS SELF-REPORTED TO HAVE CONSUMED FRUITS AND VEGETABLES AT LEAST FIVE TIMES PER DAY, BY AGE, HARRIS COUNTY, 2013



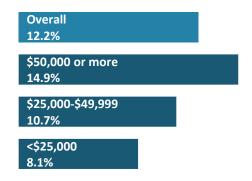
DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

FIGURE 23. PERCENT ADULTS SELF-REPORTED TO HAVE CONSUMED FRUITS AND VEGETABLES AT LEAST FIVE TIMES PER DAY, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

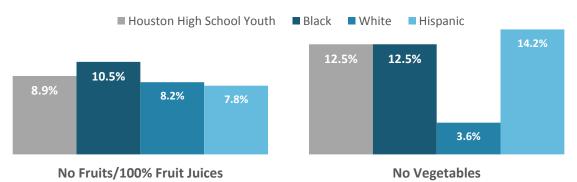
FIGURE 24. PERCENT ADULTS SELF-REPORTED TO HAVE CONSUMED FRUITS AND VEGETABLES AT LEAST FIVE TIMES PER DAY, BY MEDIAN HOUSEHOLD INCOME, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

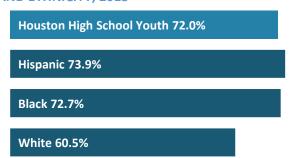
Youth in Houston were surveyed about their eating habits in 2013. In the survey, 8.9% of high school students in Houston indicated that they did not eat any fruit or drink any fruit juice in the past 7 days, while 12.5% reported that they had not eaten any vegetables during this time period (FIGURE 25). 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 26). 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 27).

FIGURE 25. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE NOT EATEN FRUITS OR DRUNK 100% FRUIT JUICES AND VEGETABLES IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013

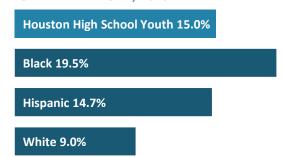


DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

FIGURE 26. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE NOT EATEN BREAKFAST AT ALL IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013



DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013 FIGURE 27. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE DRUNK SODA TWO OR MORE TIMES A DAY IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013



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

Physical Activity

Another important risk factor for maintaining a healthy weight and reducing one's risk of cardiovascular disease is physical activity. When asked about opportunities for physical activity in the region, focus group members and interviewees shared several perspectives. Some reported good access to parks and other opportunities for physical activity. However, some stated that these were not equally distributed across the region. As one informant mentioned, "We have a fairly good park and recreation system, but not so much in lower income neighborhoods." Others commented on the region's lack of infrastructure such as sidewalks and bike routes. As one informant explained, "Houston has not invested in an infrastructure that creates an environment to provide for healthier living." FIGURE 30 (next page) shows the location of parks in the Greater Houston area.

"The sidewalks are bad. We walk in the street. There's poor street lighting. It's always dark."

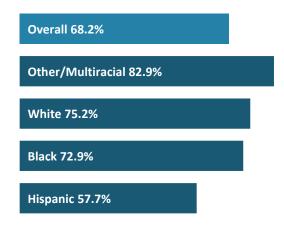
Focus group participant

Another factor affecting outdoor physical activity, according to some residents, is Texas' hot and humid climate. Given this, some residents mentioned that the region lacks low-cost opportunities for indoor physical activity such as gyms, community centers, and youth centers. Time for exercise was also identified as a substantial constraint for residents.

More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had undertaken physical activity in the 30 days before responding to the BRFSS survey (FIGURE 28). 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

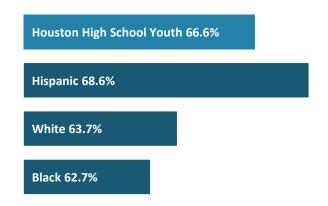
activity for 5 days in the past 7, the recommendation for youth physical activity levels (FIGURE 29). Hispanic youth were slightly more likely to indicate this, with 68.6% reporting not reaching this level of activity.

FIGURE 28. PERCENT ADULTS SELF-REPORTED TO HAVE PARTICIPATED IN ANY PHYSICAL ACTIVITIES IN PAST MONTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

FIGURE 29. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO NOT HAVE BEEN PHYSICALLY ACTIVE FOR AT LEAST 60 MINUTES PER DAY ON FIVE OR MORE DAYS IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013



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

FIGURE 30. PARKS IN GREATER HOUSTON, 2013 village Hilshire Village Spring Valley Channelview Jacinto City Houston tunki Hill Village Piney Point Village Pasadena 2234 McHard Rd Greatwood Pearland China (Hong Kong), Esri (Thailand), MapmyIndia

DATA SOURCE: Houston Parks and Recreation Department, 2013

Thompsons

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. Every community in the area served by MH Memorial City is affected by obesity. 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. For example, one key informant interviewee reported, "Houston has an obesity problem – we tend to spend a lot of time in cars and inside, not a lot outside in green spaces."

Several participants shared concerns about children

"Obesity is a significant problem because of the eating choices people make and the fact some of the population are not educated. We drive everywhere, and it's too hot to run here."

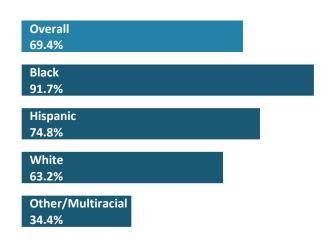
Key informant interviewee

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 health care system. As one key informant shared, "Childhood obesity has already been a

problem but now we're seeing an increase in younger kids." Residents also expressed concern about obesity among children, such as one mother who wondered, "Where are all the kids at the playground? Often we have it to ourselves. The mall is full, but the playground is empty."

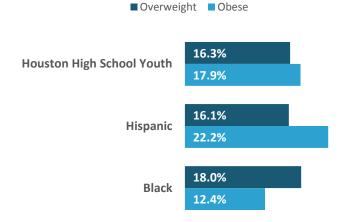
In 2013, the percentage of Harris County residents reported that they were overweight or obese was 69.4%. Nine out of ten (91.7%) Black, non-Hispanic residents in Harris County were considered overweight or obese, according to self-reported height and weight responses (FIGURE 31). Overall, about one-third of Houston high school students were considered overweight (16.3%) or obese (17.9%) (FIGURE 32) in 2013. At 22.2%, Hispanic high school students in Houston were most likely to be considered obese, while Black high school students were most likely to be considered overweight (18.0%).

FIGURE 31. PERCENT ADULTS SELF-REPORTED TO BE OVERWEIGHT OR OBESE, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 32. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED TO BE OVERWEIGHT OR OBESE, BY RACE AND ETHNICITY, 2013



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

NOTE: All other races and ethnicities were considered as having insufficient sample sizes for analysis.

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 1 in 5 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 Harris County and Houston. 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, "You see a lot of cases with Type 2 diabetes. These people have more doctors than ever. Take multiple medications at a time. All of those things cost money." Many informants discussed diabetes "running in families" as though diabetes is an expectation of life. As one informant explained,

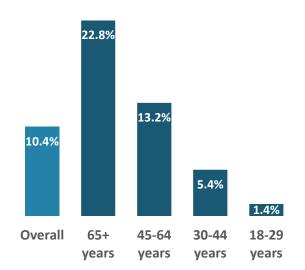
"Diabetes ... it seems to be rampant."

Low-income focus group

"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.

In Harris County in 2014, 10.4% of adults self-reported to have been diagnosed with diabetes (FIGURE 33). Self-reported diabetes diagnosis was more likely to be reported in older age groups of Harris County residents, with 22.8% of persons aged 65 years or older self-reporting they had diabetes compared to 1.4% of persons aged 18 to 29 years. Black adults in Harris County self-reported higher rate of diabetes diagnosis (15.2%) than persons self-identifying as Hispanic, White, or other races and ethnicities (FIGURE 34). In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Fort Bend County had 6.8 admissions per 100,000 population (data not shown).

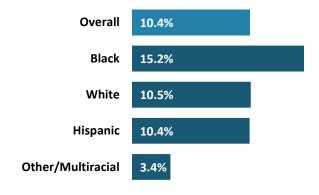
FIGURE 33. PERCENT ADULTS SELF-REPORTED TO HAVE BEEN DIAGNOSED WITH DIABETES, BY AGE, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

NOTE: Excludes respondents who were diagnosed during pregnancy

FIGURE 34. PERCENT ADULTS SELF-REPORTED TO HAVE BEEN DIAGNOSED WITH DIABETES, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

Heart Disease, Stroke, and Cardiovascular Risk Factors

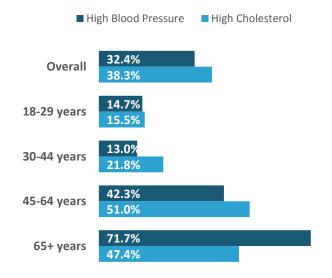
Hypertension (e.g., high blood pressure) is one of the major causes of stroke, and high cholesterol is a major risk factor for heart disease. Both hypertension and cholesterol are preventable conditions, but unhealthy lifestyle choices can play a major role in the development of these top two cardiovascular risk factors. Heart disease and stroke are among the top five leading causes of death both nationally and within this region. One focus group participant said many diseases affected her community, "Especially heart disease...everybody has high blood pressure." 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. 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.

"Everybody I know is on blood pressure medication."

Senior focus group participant

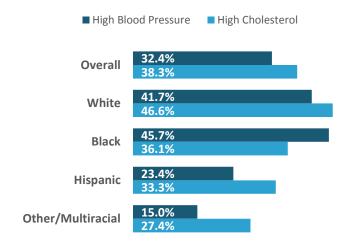
According to the Texas Behavioral Risk Factor Surveillance System in 2014 in Harris County, 2.8% of adults self-reported having been diagnosed with angina or coronary heart disease (data not shown). Similarly, 3.6% of adults in Harris County selfreported having a heart attack in 2014, and 3.8% of Harris County adults self-reported having a stroke (data not shown). Over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%) (data not shown). Harris County residents over the age of 65 were disproportionally likely to report having high blood pressure (71.7%) than their younger counterparts (FIGURE 35). 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 36).

FIGURE 35. PERCENT ADULTS SELF-REPORTED TO HAVE HAD HIGH BLOOD PRESSURE AND HIGH BLOOD CHOLESTEROL, BY AGE, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 36. PERCENT ADULTS SELF-REPORTED TO HAVE HAD HIGH BLOOD PRESSURE AND HIGH BLOOD CHOLESTEROL, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013



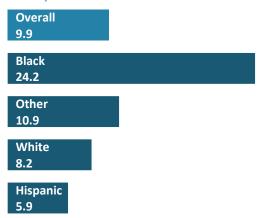
DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

Asthma

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.

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 (data for Fort Bend not available). In Harris County, 4.6% of adult residents reported that they currently had asthma, and 5.8% of Fort Bend County residents reported that they currently had asthma in 2013 (data not shown). In 2012, adult hospital discharges for asthma were 8.4 per 10,000 population in Harris County and 5.7 per 10,000 population in Fort Bend County (data not shown). Among children in Harris County aged 17 years and younger, the rate of asthma-related hospital discharges for Black, non-Hispanic children was higher than the rate for White children (24.2 versus 10.2 per 10,000 children) (FIGURE 37).

FIGURE 37. AGE-ADJUSTED ASTHMA HOSPITAL DISCHARGE RATES PER 10,000 CHILDREN (0-17 YEARS OLD), BY RACE AND ETHNICITY, HARRIS COUNTY, 2012



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

NOTE: White, Black, and Other identifying as non-Hispanic

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 get access to resources."

"We are seeing more and more cancers."

Key informant interviewee

Harris County had a higher cancer incidence rate (444.1 per 100,000 population) compared to Fort Bend County (409.4 per 100,000 population) in 2008 (data not shown). Harris County also had a higher rate of cancer mortality (163.4 per 100,000 population versus 133.9 per 100,000 population)

(data not shown). Cancer screening data is 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 38). Over two-thirds (64.8%) of adults 50 years of age and older in Harris County self-reported having a colonoscopy or sigmoidoscopy.

FIGURE 38. PERCENT ADULTS SELF-REPORTED CANCER SCREENING, HARRIS COUNTY, 2014

Mammogram within past 2 years*
81.6%

Pap test within past 3 years**
70.0%

Sigmoidoscopy or Colonoscopy***
64.8%

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 Memorial City.

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

Key informant interviewee

Mental Health

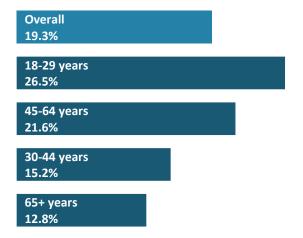
Focus group participants and key informants identified mental health and lack of access to mental health services as a major unmet need in the community served by MH Memorial City. Behavioral health providers reported a growth in demand for their services. Overall, stress, anxiety, and depression were 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, 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, a provision of the Social Security Act that allows provisions of major health and welfare programs authorized under the Act to be waived.

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. Stigma about mental illness was mentioned as a substantial barrier to identifying mental health concerns and seeking treatment. 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."

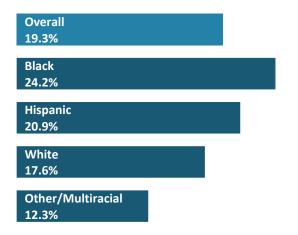
According to the 2014 Texas Behavioral Risk Factor Surveillance System, 19.3% of adults in Harris County reported having five or more poor mental health days (FIGURE 39). Self-report of having had five or more days of poor mental health was highest among residents aged 18 to 29 (26.5%) and Black residents (24.2%) in Harris County (FIGURE 40).

FIGURE 39. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH, BY AGE, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 40. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

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. Among older youth, stress associated with academic pressures was identified as a concern. As one youth focus group member shared, "Stress is the biggest thing...I would definitely say stress is huge." While mental health services in general were seen as lacking in the region, services for children and youth

were reported to be particularly scarce. The consequence, as one informant shared, is that, "Too many cases are undiagnosed for too long."

Houston Hispanic youth experienced higher mental health needs than youth of other races and ethnicities in 2013. Among youth in Houston, one-third of Hispanic high school students self-reported feeling sad or hopeless for two or more weeks in the past year (FIGURE 41). Many (12.1%) Hispanic Houston high school students self-reported they attempted suicide at least once in the past year; 11.3% of Black, non-Hispanic students self-reported a suicide attempt (FIGURE 42).

FIGURE 41. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED FELT SAD OR HOPELESS FOR TWO OR MORE WEEKS IN PAST 12 MONTHS IN HOUSTON, BY RACE AND ETHNICITY, 2013

Houston High School Youth 29.9%

Hispanic 34.1%

White 25.6%

Black 23.9%

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

NOTE: There was insufficient data for other races and ethnicities.

FIGURE 42. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED ATTEMPTED SUICIDE ONE OR MORE TIMES IN PAST YEAR IN HOUSTON, BY RACE AND ETHNICITY, 2013

Houston High School Youth 11.6%

Hispanic 12.1%

Black **11.3%**

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

NOTE: There was insufficient data for other races and ethnicities.

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. Neither focus group participants nor key informant interviewees identified opioid addiction as a major health issue affecting the Houston area.

Alcohol abuse—among both adults and teens—was reported to be a concern for the region. Reasons cited for alcohol abuse were stress and social norms. The availability of alcohol was also noted. Perspectives on the prevalence of smoking varied across respondents. Some respondents reported that it was not a key health issue for the region. Smoking was also identified as a health issue by some focus group participants: "I have not seen much of a decline in smoking. There's a hard cultural stigma to drive home." Some 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 about the dangers of substance use. 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 not shown). Harris County had a higher rate of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (66.9 per 100,000 population) than Fort Bend County (45.6 per 100,000 population), according to the Texas Department of Transportation (data not shown).

According to the Texas Youth Risk Behavior Survey, in 2013 Houston high school students self-reported using alcohol (31%), marijuana (23%), or tobacco

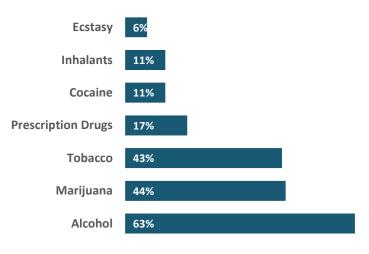
(11%) in the past month (FIGURE 43). Just under two-thirds (63%) of Houston high school students self-reported lifetime substance use of alcohol, followed by marijuana (44%), and tobacco (43%) (FIGURE 44). White Houston high school students had disproportionately higher rates of ever using tobacco and prescription drugs than students of other races and ethnicities (FIGURE 45).

FIGURE 43. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE IN PAST 30 DAYS, 2013



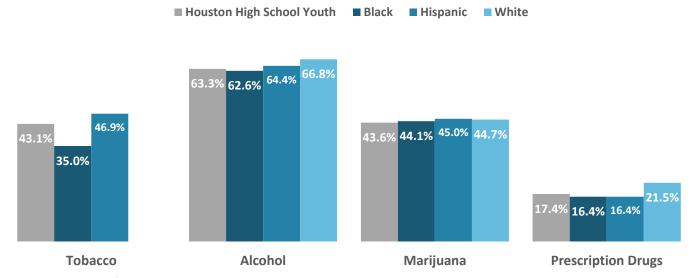
DATA SOURCE: Texas Youth Risk Behavior Survey, 2013, as cited in Prevention Resource Center, Regional Needs Assessment, 2015

FIGURE 44. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE, 2013



DATA SOURCE: Texas Youth Risk Behavior Survey, 2013, as cited in Prevention Resource Center, Regional Needs Assessment, 2015

FIGURE 45. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE, BY RACE AND ETHNICITY, 2013



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

Communicable Diseases

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

Focus group participants and key informants had few concerns or comments about communicable disease and their concerns varied. Some informants reported concern about parents not getting their children vaccinated against diseases such as measles, which they attributed to continuing misinformation about vaccines. Some focus group participants and key informants reported that education and awareness about HIV/AIDS is lacking in some communities and perceive a lack of resources in low-income areas, contributing to disparate levels of education. A low-income focus group participant reported that "Where I live, there

"We have an international airport...This makes us vulnerable to communicable infectious diseases."

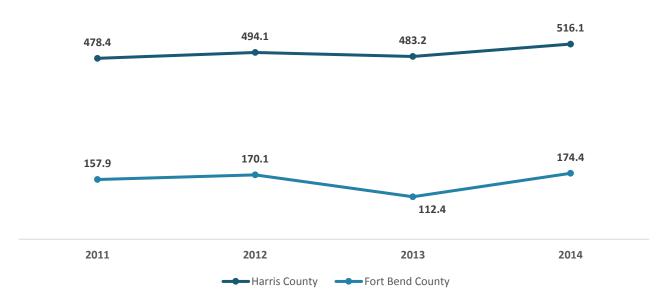
Key informant interviewee

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 Fort Bend County, with 516.1 people living with HIV per 100,000 population, compared to 174.4 per 100,000 population for Fort Bend County (FIGURE 46). HIV rates in both counties have increased from 2011 to 2014.

FIGURE 46. RESIDENTS LIVING WITH HIV RATE PER 100,000 POPULATION, BY COUNTY, 2011-2014



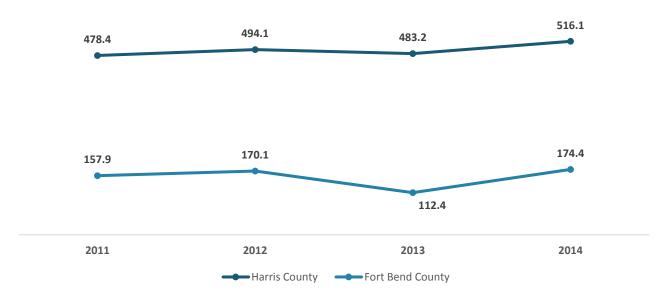
DATA SOURCE: Texas Department of State Health Services, Texas HIV Surveillance Report, 2011, 2012, 2013, and 2014

Other Sexually-Transmitted Diseases

Rates of sexually transmitted diseases—chlamydia, gonorrhea, and syphilis—were markedly higher in Harris County compared to Fort Bend County in 2014. The chlamydia rate in Harris County was over twice as high as in Fort Bend County, while

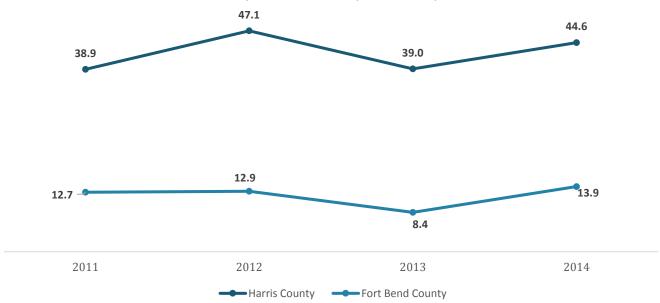
gonorrhea and syphilis cases were nearly three times higher in Harris County than in Fort Bend County (FIGURE 47, FIGURE 48, and FIGURE 49). From 2011 to 2014, chlamydia, gonorrhea, and syphilis case rates have increased in both counties.

FIGURE 47. CHLAMYDIA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014



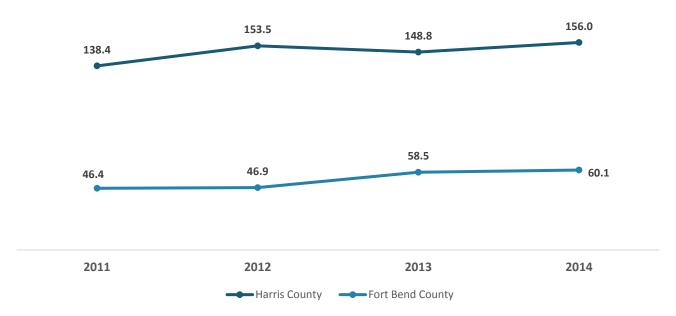
DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

FIGURE 48. 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 49. 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

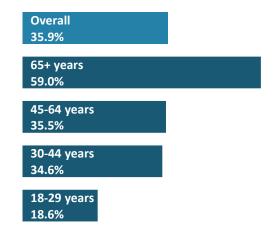
Tuberculosis

The rate of tuberculosis in Harris County (7.2 per 100,000 population) was over twice the rate in Fort Bend County (2.8 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 50, residents aged 65 years or older were disproportionately more likely to have received a flu shot (59.0%) than other age groups.

FIGURE 50. PERCENT ADULTS SELF-REPORTED TO HAVE HAD SEASONAL FLU SHOT OR SEASONAL FLU VACCINE VIA NOSE SPRAY, BY AGE, BY COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

Reproductive and Maternal Health

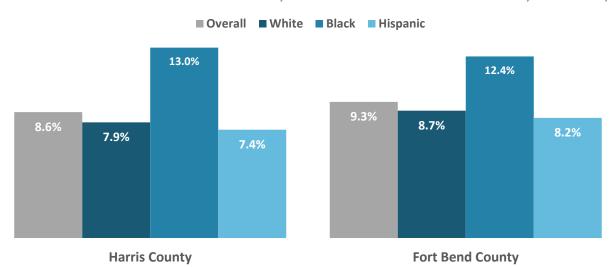
Good reproductive and maternal health provides a stronger foundation for newborns and children to have a more positive health trajectory across their lifespans. This section presents information about birth outcomes and teen pregnancy in the communities served by MH Memorial City.

Birth Outcomes

Approximately one in ten babies born in both Harris (11.8%) and Fort Bend (11.5%) Counties were born

premature, meaning born before 37 weeks gestation, in 2013 (data not shown). The proportion of babies born with low birthweight was higher in Fort Bend County (9.3%) than in Harris County (8.6%) (FIGURE 51). The proportion of babies born with low birthweight varies by race. Babies who are Black in both counties were more likely to be born low birthweight than babies of other races and ethnicities.

FIGURE 51. PERCENT LOW BIRTH WEIGHT INFANTS, OVERALL AND BY RACE AND ETHNICITY, BY COUNTY, 2013



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

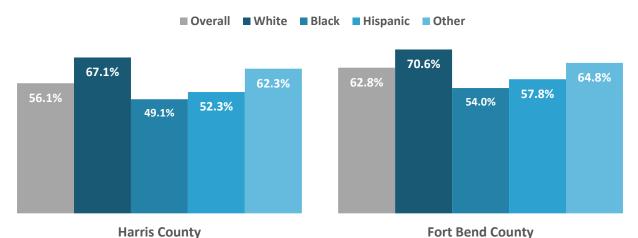
NOTE: White includes Other and Unknown race and ethnicity NOTE: Low birth weight is defined as under 2,500 grams

Prenatal Care

According to the Texas Department of State Health Services, 56.1% in Harris County and 62.8% in Fort Bend County of live births occurred to mothers who received prenatal care in their first trimester. Rates of first trimester prenatal care in all counties were highest for White, non-Hispanic mothers and lowest for Black, non-Hispanic mothers (FIGURE 52). Rates of receiving no prenatal care were 3.9% and 1.9%

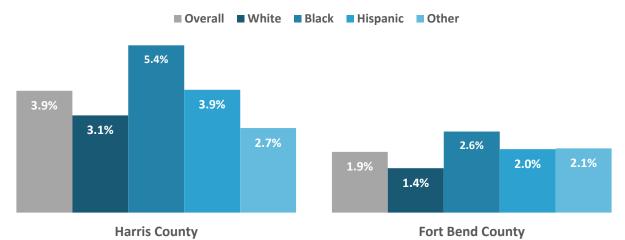
for Harris and Fort Bend County mothers, respectively (FIGURE 53). Rates of receiving no prenatal care in both counties were highest for Black, non-Hispanic mothers (5.4% in Harris County and 2.6% in Fort Bend County). In Harris County, the rate of receiving no prenatal care was lowest for mothers of Other race and ethnicity (2.7%). In Fort Bend County, the rate of receiving no prenatal care was lowest for White mothers (1.4%).

FIGURE 52. PERCENT BIRTHS WITH PRENATAL CARE IN THE FIRST TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013



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



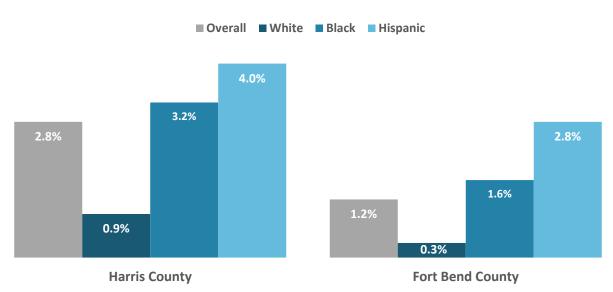
DATA SOURCE: Texas Certificate of Live Birth, as cited by Texas Department of State Health Services, Center for Health Statistics, Texas Health Data, Birth Outcomes, 2013

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 the two counties served by MH Memorial City, the rate of teen births in Harris County (2.8%) was over

twice as high as the rate in Fort Bend County (1.2%) (FIGURE 54). Teen birth rates varied by race and ethnicity. Hispanic teen mothers in Harris County (4.0%) had the highest birth rate. Births to Hispanic teen mothers was higher than those to White or Black mothers in the two counties.

FIGURE 54. 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 and 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 endocarditits. 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 were described as often difficult to access due to long waitlists. 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.

"Dental health has a huge relationship to physical health."

Key informant interviewee

In the two counties served by MH Memorial City, residents' access to dentists was similar: in Harris County, there were 57.4 dentists per 100,000 population and in Fort Bend County there were 56.9 dentists per 100,000 population in 2014 (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 55). Hispanic adults in Harris County reported the lower rates of annual dental visitation (50.6%) than adults of other races or ethnicities. 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 56). Similarly, adults with higher incomes were more likely to have received dental care (FIGURE 57).

FIGURE 55. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014

Overall 58.2%

Other/Multiracial 70.2%

White 65.2%

Black 57.2%

Hispanic 50.6%

DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 56. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY EDUCATION, HARRIS COUNTY, 2014

Overall 58.2%

College Graduate 76.5%

High School Graduate 61.9%

< High School 48.1%

Some College 47.1%

DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 57. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY INCOME, HARRIS COUNTY, 2014

Overall 58.2%

\$50,000 or more 75.1%

\$25,000-\$49,999 56.4%

<\$25,000 44.7%

DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

HEALTHCARE ACCESS AND UTILIZATION

Health Insurance

Health insurance is a significant predictor of access to health care services and overall population health. While some interview and focus group participants stated that community members have access to health insurance, others noted substantial gaps. For example, focus group participants from low-income areas reported frustration regarding this lack of health insurance. As one member of a focus group shared: "You work 30+ years and retire, and now you have no insurance; they know you don't have insurance and a whistle goes off... After taking care of people all your life, you struggle." Others reported that despite the Affordable Care Act (ACA), the number of uninsured in the region was high. One reason for this, 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

"Some people can't afford insurance. Even though it's cheap, it's still not affordable."

Focus group participant

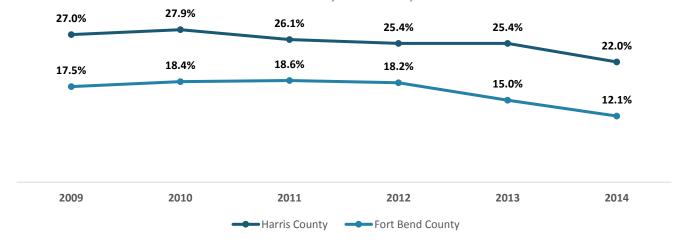
network providers, services covered, and billing statements. This is especially challenging, respondents reported, for those who do not speak English, are undocumented immigrants, or who have lower literacy levels as well as those who have never had insurance coverage. As one focus group member summed up, "[Insurance] is very hard to understand. There are so many places and points of the process where it can go wrong."

"My copayments scheduled changed on me. I don't understand it."

Focus group participant

As shown in FIGURE 58, uninsurance rates decreased for Harris and Fort Bend counties following the passage of the Affordable Care Act in 2010. Harris County had higher rates of uninsurance than Fort Bend County during the 2010-2014 period.

FIGURE 58. PERCENT TOTAL POPULATION UNINSURED, BY COUNTY, 2009-2014



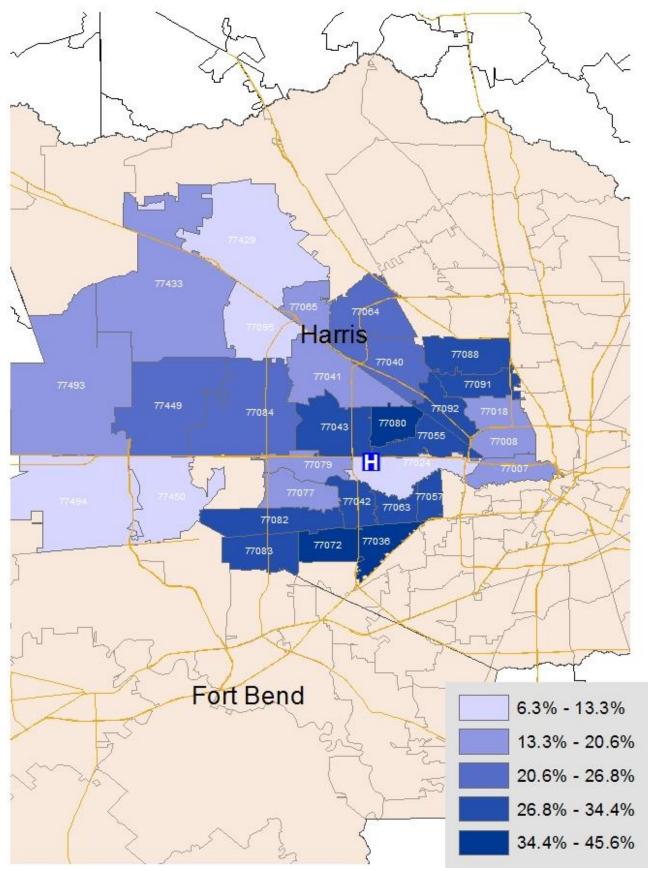
DATA SOURCE: U.S. Census Bureau, American Community Survey 1-Year Estimates, 2009, 2010, 2011, 2012, 2013, and 2014

Rates of uninsurance varied by zip code across the communities served by MH Memorial City. In 2013, the zip codes in the Houston (Harris County) geographic area around the MH Memorial City facility had the highest rates of uninsurance for the total population (FIGURE 59). The following zip codes reported rates of uninsurance over 40% in 2013: 77036 (45.6%), 77080 (41.7%) and 77072 (40.5%). Among individuals aged 18 and younger, uninsurance rates reported in 2013 were lower than the overall population. The following zip codes

reported rates of uninsurance for children that were over 20% in 2013: 77036 (25.2%), 77043 (24.3%) and 77080 (22.3%) (FIGURE 60).

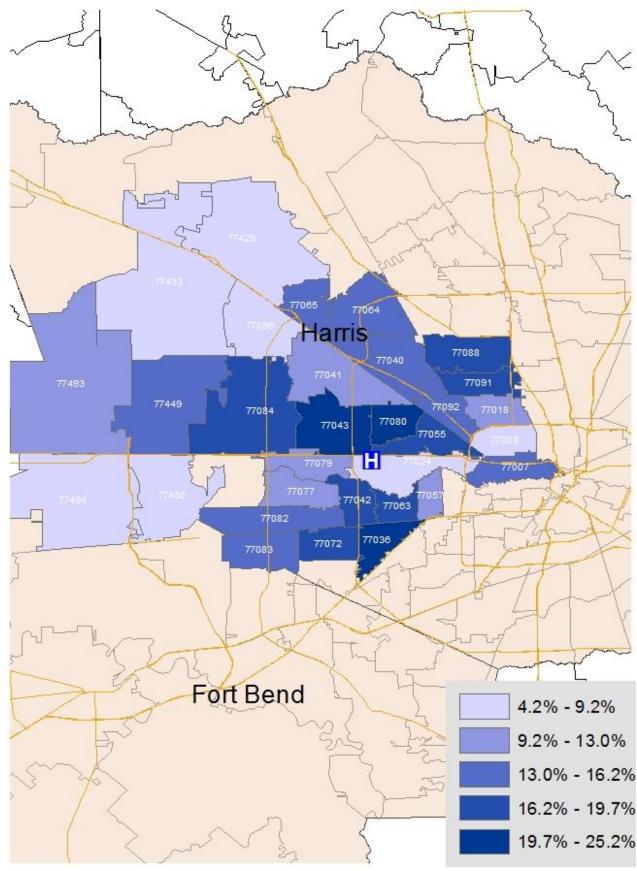
Among the zip codes served by MH Northeast, 203,778 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77036 in Houston (20,058 enrollees) (FIGURE 61). In Fort Bend County, the only zip code represented in MH Memorial City's community was 77494 in Katy (2,608 enrollees).

FIGURE 59. PERCENT TOTAL POPULATION UNINSURED, BY ZIP CODE, 2013

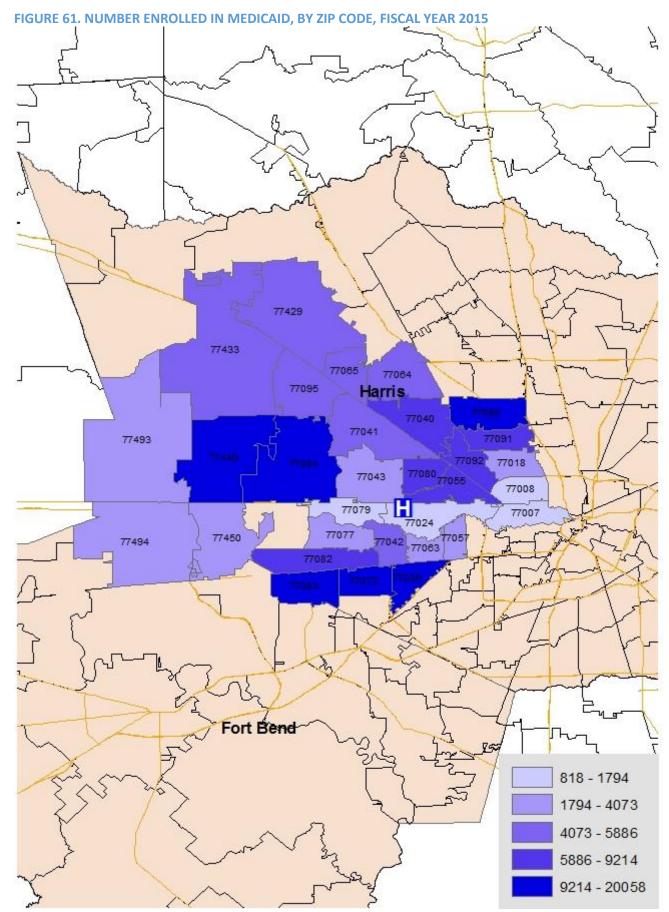


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 60. PERCENT UNDER 18 YEARS OLD POPULATION UNINSURED, BY COUNTY, 2013



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



DATA SOURCE: Texas Health and Human Services Commission System Forecasting, March 2016

NOTE: Enrollment by zip code does not equal total enrollment due to lack of zip code data for some clients

Healthcare Access and Utilization

Focus group participants and key informants stated that shortages of specialty providers 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 emergency rooms (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." 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 of the co-pay." While residents reported that there are medication assistance programs, these are seen as insufficient to meet the need. Some respondents also mentioned that cost of other health services—like dental and vision care—is expensive and often not covered by insurance.

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 that "There

are a lot of places that say they help people, but it's a lot of paperwork. We need more assistance. Or you go there, and they say they have no funding." Another challenge according to informants is that people are not accessing existing health and social services because they do not 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]."

Access to Primary Care

The proportion of residents served by MH Memorial City who have a primary care physician varies by county. In 2014, Harris County had a higher proportion of primary care physicians (82.6 per 100,000 population) compared to Fort Bend County (59.9 per 100,000 population) (FIGURE 62). In Harris County, 38.2% of adult residents self-reported that they did not have a doctor or health care provider (data not shown; data unavailable for Fort Bend County). In the Houston-The Woodlands-Sugar Land MSA in 2014, 34% of physicians accepted all new Medicaid patients, 24% limited their acceptance of new Medicaid patients, and 42% accepted no new Medicaid patients. In Harris County in 2014, 37% of physicians accepted all new Medicaid patients, 23% limited their acceptance of new Medicaid patients, and 40% accepted no new Medicaid patients. (Data on Medicaid acceptance is unavailable for Fort Bend County due to a low survey response rate.)

FIGURE 62. NUMBER OF PRIMARY CARE PHYSICIANS PER 100,000 POPULATION, BY COUNTY, 2014

Harris County 82.6

Fort Bend County 59.9

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

Emergency and Inpatient Care for Primary Care Treatable Conditions

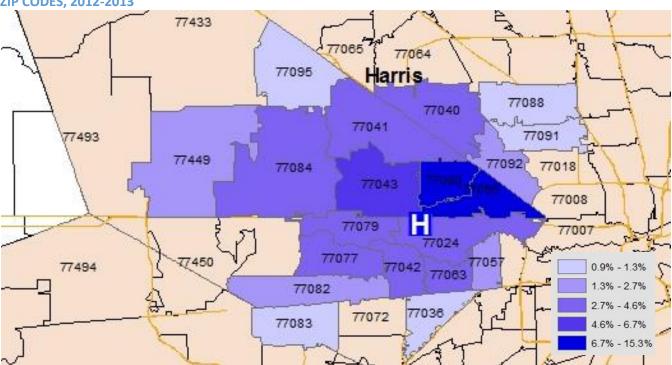
People who are poor, uninsured or covered by Medicaid, certain racial/ethnic minorities and immigrants, and individuals with limited education, literacy or English language skills are all less likely to

have a usual source of care (USOC) provider other than a hospital emergency department (ED). In 2013, about four in ten ED visits were classified as primary care-related.

Of MH Memorial City's 52,549 ED visits in 2013, 49.2% were from patients who were uninsured or on Medicaid, and 32.7% were classified as non-emergent or with primary care treatable conditions. All 20 zip codes in the MH Memorial City's CHNA-defined community matched the top 20 zip codes for the highest number of primary care treatable ED

visits at the MH Memorial City in 2013. Zip codes 77080 and 77055 composed 27.4% of the primary care treatable emergency department visits at MH Memorial City (FIGURE 63). Of all ED visits, 6.3% were for chronic conditions. Of MH Memorial City's 22,097 inpatient discharges in 2015, 8,735 inpatient discharges or 35.9% were related to an ambulatory care sensitive condition. The top four ambulatory care sensitive conditions that resulted in inpatient care at MH Memorial City in 2015 were diabetes (168 discharges), congestive heart failure (143 discharges), and cellulitis (95 discharges).

FIGURE 63. PRIMARY CARE TREATABLE EMERGENCY DEPARTMENT VISITS AT MH MEMORIAL CITY, BY TOP 20 ZIP CODES, 2012-2013



DATA SOURCE: Memorial City Hermann Health System, Emergency Department Data, 2012-2013

COMMUNITY ASSETS AND RESOURCES

"Houston is recognized as a world class medical care city with a mix of the most extensive high-end hospitals. Yes we have access issues, but the health care infrastructure is strong."

Key informant interviewee

"Houston is a very giving community."

Focus group participant

"Diverse cultures, races, ethnicities, and countries of origin contribute to the strength of the city."

Key informant interviewee

"Social services are of good quality. There are many strong community and business partners."

Key informant interviewee

Diverse, Cohesive Community

Residents and stakeholders described diversity and social cohesion as being among the primary assets and strengths of their community. The Greater Houston area was described as "an extremely diverse community" with "positive growth" and a "sense of community." Informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. One informant shared, "Houston is an extremely rich place, culturally. We have something for everyone. Community needs can be met pretty well here in Houston because there's a lot of understanding of different types of needs. The feeling is that you can always find community." Many key informants and focus group participants described a sense of social cohesion across communities. This cohesion does not just occur within neighborhoods, but also within groups sharing a common issue. For example, one focus group participant representing the Hispanic community reported: "We're a tight knit community".

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 Memorial City. As one informant explained, "[We have] one of the strongest complex of medical services in the 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 healthcare 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. Key informants and focus group participants also communicated the theme of innovation regarding the health care system. As one key informant interviewee reported, "[There is a] spirit of innovation...I see that with our health department and health institutions...We are known for key research."

Strong Public Health and Social Service System

The communities of MH Memorial City 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 in our local health department, and they have a strong commitment at looking at and working with school districts to fill gaps, 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."

Strong Schools

The communities served by MH Memorial City have strong schools, according to key informants and focus group respondents. According to one key informant, "We have great school districts. Education outreach is good."

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 Memorial City: "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."

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. Interviewees and focus group members identified a need to address the rising rates of obesity and chronic disease in the region and promote community health for the long term. Suggestions about how to do this varied. For example, one informant suggested insurance incentives: "An insurance product can encourage healthy lifestyles. If you can put a reasonable one in peoples' hands...that incentivizes people and it could have the biggest effect." 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 saw many potential partners in this work including hospitals, schools and school nurses, social service organizations, public programs like WIC, faith institutions, and workplaces. Some respondents suggested PSAs with positive messaging around healthy lifestyles.

Improve Transportation

Transportation presents many problems in the communities served by MH Memorial City, 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: "Having more vehicles available and of course more people to hire would help."

Stakeholders also suggested public transportation be expanded and promoted, especially in areas where the population is expanding.

Provide Support to Navigate the Healthcare System

Residents need assistance in facing the number of barriers to accessing health care services in the communities served by MH Memorial City. Stakeholders described existing strategies such as community health workers should be expanded. Numerous respondents pointed to the critical role that Community Health Workers (CHWs) play in educating patients and community members about prevention and in helping them to navigate the health system. For example, a stakeholder suggested, "Navigator programs for people to access healthcare." Senior focus group respondents were particularly insistent that advocates be available for them to navigate the complexities of the health care system. 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." Another respondent 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 Healthcare Services

While the communities served by MH Memorial City 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. As one informant shared, "We've got some of the greatest physicians 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 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.

Expand Access to Behavioral Health Services

Informants identified behavioral health care access as being a major unmet need in the communities served by MH Memorial City. 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 Texas to improvement in access to and quality of behavioral health services. Stakeholders suggested Texas should pursue strategies that sustain these efforts and continue to promote innovation within the behavioral health services space.

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 Memorial City. 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. 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 Memorial City, 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 Fort Bend Counties differ in terms of demographics and population health needs. Both Harris and Fort Bend have racially and ethnically diverse populations. Harris County is home to Houston, a city with a tremendously diverse population in terms of age, affluence, race and ethnicity, language, and health needs, while Katy is a far less diverse city. The counties differ, however, in other respects. Residents of Fort Bend tend to have higher levels of household income and education, and they also have lower levels of mortality, fewer incidences of chronic disease, and lower rates of HIV and other sexually transmitted infections. Residents in Fort Bend are more likely to have health insurance than those in Harris County. While Harris County experiences more challenges in terms of population health than residents in Fort Bend, it also has more accessible social and health resources and better public transportation for its residents.
- The increase in population over the past five years has placed a 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 Memorial City 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 to navigate an 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 seven in ten 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 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 significant unmet needs for mental health and substance abuse services in the communities served by MH Memorial City, particularly the burden of mental illness for young people and on 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 Texas Section 1115 Medicaid demonstration waiver. This area is ripe with opportunity to address needs that are currently not being met.

Communities served by MH Memorial City
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 Harris County, other communities served by MH Memorial City have limited access to public transportation. 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 64, 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 Memorial City. 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 Memorial City, 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 64.PRIORITIZATION CRITERIA

FIGURE 64. PRIORITIZATION CRITERIA			
RELEVANCE How Important Is It?	APPROPRIATENESS Should We Do It?	IMPACT What Will We Get Out of It?	FEASIBILITY Can We do It?
 Burden (magnitude and severity, economic cost; urgency of the problem) Community concern Focus on equity and accessibility 	 Ethical and moral issues Human rights issues Legal aspects Political and social acceptability Public attitudes and values 	 Effectiveness Coverage Builds on or enhances current work Can move the needle and demonstrate measureable outcomes Proven strategies to address multiple wins 	 Community capacity Technical capacity Economic capacity Political capacity/will Socio-cultural aspects Ethical aspects Can identify easy short-term wins

APPENDIX A. REVIEW OF 2013 INITIATIVES

CHNA PRIORITIES	OBJECTIVES	RESULTS
Education and prevention for diseases and chronic conditions	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.	In the past three years, MH-Memorial City served 589,569 individuals through 24 programs focused on education and prevention for diseases and chronic conditions.
Address issues with service integration, such as coordination among providers and the fragmented continuum of care	To address information sharing, patients' needs for medical homes, and inappropriate ED use through several programs.	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.
Address barriers to primary care, such as affordability and shortage of providers	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.	Community physicians refer their patients to a Hospitalist for hospital admission. In February 2013, MH-Memorial City opened a dedicated OB Emergency Room with OB Hospitalists. The OB ER is staffed 24/7 with board certified OBGYNs, and they provide services for unassigned patients, private patients that have been directed to the OB ER by their primary provider, and as a backup for all OB providers in an emergency. MH-Memorial City has met the PCP recruitment goals for its services area.

CHNA PRIORITIES	OBJECTIVES	RESULTS
		Uninsured Emergency Center patients receive a visit voucher for Memorial Hermann's Neighborhood Health Center, a primary care center whose mission is to serve the working poor.
Address unhealthy lifestyles and behaviors	To continue to reinforce healthy lifestyles and influence and encourage behavior change.	-Breakthroughs in Health newsletter sent to 50,000 householdsEmployee wellness programs continue to include incentive/disincentive for wellness/non wellness selectionsNewStart Weight Loss Surgery Online SeminarWeight Loss Surgery Support Group Engaged the TIRR physical therapy personnel to attend Support Group to educate on safe physical activities for those that are morbidly obese and want to start an exercise programProvision of nutritional information in the Campus Cafés and highlighting wellness menu options "Swap This for That" program in the Campus Cafés. Signage is located in the grill areas, beverage stations, and the grab and go sectionsThe Campus Catering Menu reflects new wellness items available for meetings, seminars, etc. held on the CampusVending was updated to reflect nutritional information on products with healthier options available.
Address barriers to mental healthcare, such as access to services and shortage of providers	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	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.

CHNA PRIORITIES	OBJECTIVES	RESULTS
	provide rapid access to initial	Through appropriate referral and
	psychiatric treatment and	placement among 200+ mental
	outpatient services.	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 discharge.
		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

CHNA PRIORITIES	OBJECTIVES	RESULTS
		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.
		MH-Memorial City Social Worker works with Turning Point, an organization supporting Houston's 50 year and older homeless with mental health or substance abuse issues. This resource is used by the Case Management team for Emergency Center as well as hospitalized patients.
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.	A Concierge Folder is available on the shared drive for MH-Memorial City staff to access when in need of resources. The folder contains information on resources for patients and families. The Social Work team has a Survival Guide with a variety of resources available for the at-risk population related to social issues. It is primarily used in the Emergency Center. During registration, patients who don't have insurance are referred to MH-Memorial City's vendor for assistance in obtaining eligibility for Medicaid, Cardon.
		The Homeless Help Card, produced by the Coalition for the Homeless of Houston/Harris County, is made available to any patient in need of these types of

CHNA PRIORITIES	OBJECTIVES	RESULTS
		resources. It is printed in English and Spanish.
		In July 2013 MH-Memorial City expanded the hours within the pediatric Emergency Center to cover 24/7. The pediatric EC is staffed with board certified UT pediatricians, and is currently servicing close to 1,000 children per month.
		Language Line interpretation resources are available for any patient needing assistance with interpretation. Primary needs are Spanish, Vietnamese, Korean and Arabic. Likewise, Master Word translation resources for all languages are also available. Community Access and Accessibility Group provide sign-language interpretation for American Sign Language patients in the hospital.
Increased access to affordable	Not Applicable	The need for "increased access to
dental care		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.
Increased access to transportation	Not Applicable	The need for "increased access to transportation," is not addressed due to the fact that transportation is not a core business 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

CHNA PRIORITIES	OBJECTIVES	RESULTS
		their efforts to impact these
		issues.

Note: Appendix A, Review of 2013 Initiatives, added to the 2016 Community Health Needs Assessment on 4/24/17.

APPENDIX B. FOCUS GROUP AND KEY INFORMANT ORGANIZATIONS

Organizations Involved in Focus Group Recruitment by Population Segment

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

Organizations Contributing Key Informant Interviews

ACCESS Health (FQHC)

Asian American Health Coalition

Association for the Advancement of Mexican

Americans

Blue Cross Blue Shield

Children at Risk

Childrens Defense Fund

Christ Clinic

City of Houston, Department of Neighborhoods

City of Houston, Department of Parks and

Recreation

Community Health Choice

Fort Bend Health and Human Services

Harris County Public Health and Environmental

Services
Harris Health

Houston Independent School District

Institute for Spirituality and Health

Interfaith Community Clinic

Interfaith Ministries of Greater Houston

LoneStar Family Health Center

Mayor's Office for People with Diabilities

Memorial Hermann Texas Medical Center

Memorial Hermann Health System

Office of Harris County Judge Ed Emmett

One Voice Texas

Pasadena ISD

SETRAC (Southeast Texas Regional Advisory Council)

Sheltering Arms Senior Services, Neighborhood

Centers Inc.

Southwest Management District

Texas Legislature

The Harris Center for Mental Health and IDD

(MHMRA)

Tri County Services

United Way of Montgomery County

Universtiy 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 <u>GUIDE</u>, 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 <u>audio-taping</u> 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 <u>cell phones</u> 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 <u>health</u> concerns in your community? [PROBE ON THE FOLLOWING SPECIFIC ISSUES IF NOT MENTIONED: CHRONIC DISEASES/CONDITIONS, MENTAL HEALTH, SUBSTANCE ABUSE, VIOLENCE, ACCESS TO HEALTY 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 <u>harder</u> 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 <u>programs</u>, <u>services</u>, <u>and policies</u> 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 <u>want</u> 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 <u>want</u> 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 <u>health</u> 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 <u>community residents'</u> biggest challenges to addressing [THIS ISSUE]?
 - From your experience, what are <u>organizations'</u> 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 TRANSPORTION, 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 <u>1 thing</u> 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:

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