Memorial Hermann Health System

Memorial Hermann Southeast Hospital

Community Health Needs Assessment 2016

June 8, 2016

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Health Resources in Action

Advancing Public Health and Medical Research

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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 Southeast Hospital. 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 Memorial Hermann Southeast Hospital's CHNA.

Community Health Needs Assessment Methods

The CHNA was guided by a participatory, collaborative approach, which examined health in its broadest sense. This process included integrating existing secondary data on social, economic, and health issues in the region with qualitative information from 11 focus groups with community residents and service providers and 27 interviews with community stakeholders. Focus groups and interviews were conducted with individuals from the Greater Houston area and from within MH Southeast's diverse community. ***The community defined for this CHNA focused on the counties of Harris, Brazoria, and Galveston, and the ten communities served by MH Southeast: Alvin, Deer Park, Friendswood, Houston, La Porte, League City, Manvel, Pasadena, Pearland, and South Houston.***

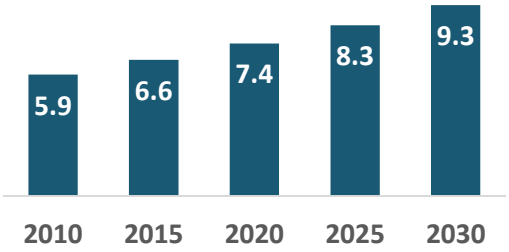
Key Findings

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

Community Social and Economic Context

- **Population Growth and Size:** Harris County was the fastest growing county within the MH Southeast community (2.1% increase in 2010-2014 over the 2005-2009 period). The Houston metropolitan area, which is the most populous among the ten MH Southeast communities, 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:** Among the three counties served by MH Southeast, Harris County had the youngest population, whereas Galveston County had the largest population of residents 65 years of age and older (11.7%). Among cities and towns served by MH Southeast, Pasadena and South Houston had the youngest population, and Manvel (13.4%) and Friendswood (13.2%) had the highest proportion of residents 65 years of age and older.
- **Racial and Ethnic Distribution**: Across the three counties served by MH Southeast, Harris County had the largest proportion of residents who identified as Hispanic (41.1%), Black, non-Hispanic (18.5%) or Asian, non-Hispanic (6.3%). Among cities and towns served by MH Southeast, South Houston (87.3%) had the largest self-identified Hispanic population; Manvel (26.8%) had the highest percent of self-identified Black, non-Hispanic residents. The largest proportion of self-identified Asian residents lived in Pearland (13.7%).
- **Linguistic Diversity and Immigrant Population:** In Harris County, 42.5% of residents spoke a language other than English at home, whereas 25.8% of residents in Brazoria County and 19.3% of Galveston County residents spoke a non-English language at home. Among MH Southeast communities, seven in ten residents of South Houston (72.2%), and nearly half of residents in Pasadena (47.5%) and Houston (46.3%) spoke a language other than English at home, compared to

10.5% of residents in Manvel. There was a sizable population of non-English speakers who spoke Spanish or Spanish Creole: 80.3% in Harris County, 78.4% in Galveston County, and 75.6% in Brazoria County. Among the three counties served by MH Southeast, Vietnamese was the second most common non-English language spoken at home. From 2000 to 2013, Houston's immigrant population grew nearly twice the national average: a rate of 59% in 13 years versus 33% in the United States.

- **Income and Poverty:** The median household income in the three counties served by MH Southeast ranged from $53,137 in Harris County to $67,603 in Brazoria County. Amongst cities and towns served by MH Southeast, the highest median household income in Friendswood ($99,365) was more than double the median household income in South Houston ($35,478). The proportion of adults with incomes below the poverty line ranged from a high of 15.1% of Harris County residents to a low of 9.9% of Brazoria County residents. Across municipalities, the percent of adults with incomes below the poverty line was highest in South Houston (24.2%).
- **Employment:** Unemployment rates for Texas and all three counties served by MH Southeast peaked in 2010 but have decreased consistently over the past five years. For example, unemployment was at 8.3% for Harris County and fell to 4.9% in 2014. This pattern was similar across the region.
- **Education:** Harris County (44.8%) had the highest proportion of residents with a high school diploma or less. Across all three counties, more than one quarter of residents had a bachelor's degree or higher. South Houston (76.9%) and Pasadena (60.0%) had the highest percentage of residents with high school diploma or less. Friendswood (49.1%), Pearland (46.6%), and League City (42.8%) had the highest proportion of residents with a bachelor's degree or higher.

> ***"I do think Houston does a good job with caring for kids. Education is important here."***
>
> **Key informant interviewee**

> ***"[People] spend so much time commuting that by the time they get home they don't want to go somewhere to exercise. There aren't a tremendous number of parks. You would have to get in your car."***
>
> **Key informant interviewee**

- **Housing:** Monthly median housing costs for home-owners were relatively similar, ranging from a low of $1,199 in Brazoria County to a high of $1,232 in Harris County. For renters, monthly median housing costs ranged from $865 in Brazoria County to $900 in Galveston County. Among the municipalities served by MH Southeast, housing costs for home-owners ranged from $1,188 in South Houston to $2,083 in Friendswood; for renters, housing costs were lowest in South Houston ($685) and highest in Manvel ($1,342). In all counties, a higher percentage of renters compared to home-owners paid 35% or more of their household income towards their housing costs. In Harris County, for example, 40.9% of renters paid more than 35% of their income towards housing costs, relative to 25.5% of home-owners.
- **Transportation:** A majority of residents in the three counties served by MH Southeast commuted to work by driving alone in a car, truck, or van. Among MH Southeast municipalities, Houston had the highest percentage of workers who commuted by public transportation (4.3%).
- **Crime and Violence:** Among municipalities served by MH Southeast, the violent crime rate was highest in Houston (954.8 offenses per 100,000 population) and lowest in Friendswood (26.3 offenses per 100,000 population). The property crime rate was

highest in Houston (4,693.7 offenses per 100,000 population) and lowest in Friendswood (865.5 offenses per 100,000 population).

Community Health Outcomes and Behaviors

Physical Health

- **Overall Leading Causes of Death:** Galveston County experienced the highest overall mortality rate (782.0 per 100,000 population) of the three counties served by MH Southeast.
- **Overweight and Obesity:** In 2013, approximately seven in ten adults in Galveston (72.7%) and Harris (69.4%) Counties reported that they were overweight or obese. (Data is unavailable for Brazoria and Galveston Counties.) Overall, about one-third of Houston high school students were considered overweight (16.3%) or obese (17.9%) in 2013.
- **Diabetes:** In 2014, 10.4% of adults in Harris County self-reported to have been diagnosed with diabetes compared to 12.4% of adults in Galveston County (data is unavailable for Brazoria County). In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Brazoria County experienced 9.8 admissions per 100,000 population and Galveston County had 7.0 admissions.
- **Heart Disease, Stroke, and Cardiovascular Risk Factors:** In 2014, a larger percentage of adults in Galveston County (8.8%) than Harris County (2.8%) self-reported having been diagnosed with angina or coronary heart disease, and 4.1% of Galveston County adults and 3.8% of adults in Harris County self-reported having had a stroke. (Data is unavailable for Brazoria County.) A greater proportion of adults in Galveston County (6.8%) reported having had a heart attack compared to adults in Harris County (3.6%). (Data is unavailable for Brazoria County.) Over a third of Harris County adults self-reported having high cholesterol (38.3%); just under a third of Harris County adults self-reported having high blood pressure (32.4%). (Data is unavailable for Brazoria and Galveston Counties.)
- **Asthma:** The self-reported prevalence of current asthma ranged from a high of 5.3% among Harris County adults to 3.2% among Galveston County adult residents. (Data is unavailable for Brazoria County.) Among Harris County children 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 8.2 per 10,000 population). (Data is unavailable for Brazoria and Galveston Counties.)
- **Cancer:** Galveston (463.4 per 100,000 population) and Harris (444.1 per 100,000 population) Counties had a higher cancer incidence rate than Brazoria County (395.4 per 100,000 population). In a 2014 Behavioral Risk Factor Surveillance System survey, in both Harris and Galveston Counties, approximately eight in ten women 40 years of age or older indicated they had completed a mammogram in the past two years. (Data is unavailable for Brazoria County.) Women's reports of having completed a pap test in the past three years ranged from 70.0% of women in Harris County to 77.0% of women in Galveston County. (Data is unavailable for Brazoria County.) Compared to Harris County (64.8%), a larger proportion of adults in Galveston County (73.6%) self-reported having a colonoscopy or sigmoidoscopy. (Data is unavailable for Brazoria County.)
- **HIV and Sexually-Transmitted Diseases:** Harris County experienced the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county, an increase from 478.4 per 100,000 population in 2011. From 2011 to 2014, chlamydia, syphilis, and gonorrhea rates increased in Harris County. Brazoria County experienced an increase in the rate of chlamydia and a decline in the rate of syphilis and gonorrhea. Over this same period, in Galveston County the rates of chlamydia decreased, while rates of syphilis remained stable, and rates of gonorrhea increased. Across all three counties served by MH Southeast, rates of chlamydia, gonorrhea, and syphilis were highest in Harris County.

- **Tuberculosis:** Harris County had the highest rate of tuberculosis, with 7.2 cases per 100,000 population, a rate that was double that in Brazoria County (3.5 per 100,000 population).
- **Influenza:** In 2014, 35.9% of Harris County adults and 39.3% of adults in Galveston County reported having obtained a seasonal flu shot or vaccine via nose spray. (Data is unavailable for Brazoria County.) In both Harris (59.0%) and Galveston (61.5%) Counties, residents aged 65 years or older were more likely to have received a flu shot than younger age groups.
- **Oral Health:** Harris County (57.4 per 100,000 population) had the highest number of dentists, followed by Brazoria County (45.2 per 100,000 population). Galveston County (37.3 per 100,000 population) had the lowest number of dentists. In 2014, 58.2% of adults in Harris County self-reported having visited a dentist or dental clinic within the past year for any reason compared to 62.9% in Galveston County. (Data is unavailable for Brazoria County.) Hispanic adults in Harris County reported the lowest rate of annual dental visitation (50.6%) compared to adults of other races or ethnicities. (Data is unavailable for Brazoria and Galveston Counties.)

One in four children in Harris, Galveston, and Brazoria Counties was food insecure in 2013.

- **Maternal and Child Health:** Approximately one in ten infants born in Harris (11.8%), Brazoria (11.7%), and Galveston (13.4%) Counties was premature in 2013. In all three counties, infants born to Black, non-Hispanic mothers were more likely to be born low birthweight than infants born to women of other races or ethnicities. The prevalence of births to teen mothers was highest among Black, non-Hispanic teens in Galveston County (4.0%) and Hispanic teens in Harris County (4.0%). In 2013, 56.1% of Harris County, 60.9% of Brazoria County, and 61.3% of Galveston County live births occurred to mothers who received prenatal care in their first trimester. Rates of receiving no prenatal care were 3.9%, 4.2%, and 7.7% for Harris, Brazoria, and Galveston County mothers, respectively.

Health Behaviors

- **Food Access:** In Harris, Galveston, and Brazoria Counties, approximately one quarter of all children under 18 years of age were considered to be food insecure. In 2013 in the three counties served by MH Southeast, access to grocery stores, ranged from 9 grocery stores per 100,000 population in Brazoria County to 19 grocery stores per 100,000 population in Harris County. Galveston County low-income residents had the greatest access to farmer's markets (31.8%), and Brazoria County low-income residents had the lowest access to farmer's markets (10.4%).
- **Healthy Eating:** Only 12.2% of Harris County adults in 2013 indicated that they ate fruits and vegetables five or more times per day. (Data unavailable for Brazoria and Galveston Counties.) Lower income Harris County adults ate fewer fruits and vegetables than residents with higher median household incomes. In 2013, 8.9% of high school students in Houston indicated that they did not eat any fruit or drink any fruit juice in the past 7 days.
- **Physical Activity:** Physical activity data is only available for Harris County. More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had participated in any type of physical activity in the past month, with Hispanic adults being less likely to report physical activity than other racial or ethnic groups. In 2013, two-thirds (66.6%) of Houston high school students reported that they had not participated in 60 or more minutes of physical activity for 5 days in the past 7 days.

Behavioral Health

- **Adult Mental Health:** In 2014 19.3% of adults in Harris County self-reported having five or more poor mental health days compared to adults in Galveston County (14.9%). (Data is unavailable for Brazoria County.)

- **Youth Mental Health:** Data on youth mental health is only available for Houston. 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, compared to 11.3% of Black, non-Hispanic students. Black, non-Hispanic Houston high school students self-reported a suicide attempt rate of 11.3%.
- **Substance Use and Abuse:** In 2014, self-reported binge drinking in the past month ranged from 13.7% among Harris County adults to 15.2% among Galveston County adults. (Data is unavailable for Brazoria County.) More than one in ten adults in Harris (13.6%) and Galveston (12.6%) Counties reported being current smokers. (Data is unavailable for Brazoria County.) Over the 2010-2014 period, the rate of non-fatal motor vehicle crashes attributed to driving under the influence (DUI) ranged from 66.9 per 100,000 population in Harris County to 83.1 per 100,000 population in Brazoria County. Just under two-thirds (63%) of Houston high school students self-reported lifetime substance use of alcohol, followed by marijuana (44%), and tobacco (43%). (Data on youth substance abuse only available for Houston.)

Health Care Access and Utilization

- **Health Insurance:** Uninsurance rates decreased across the three counties following passage of the Affordable Care Act in 2010. Harris County had higher rates of uninsurance than Galveston or Brazoria Counties during the 2009-2014 period. In 2014, 22.0% of the total population in Harris County was uninsured compared to 12.4% in Brazoria County and 17.0% in Galveston County. In 2013, the zip codes in Harris County around the MH Southeast facility had the highest rates of uninsurance for the total population. Among the zip codes served by MH Southeast, 119,743 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77506 in Pasadena (10,017 enrollees). In Brazoria County, the zip code with the most Medicaid enrollees was 77511 in Alvin (6.800 enrollees). In Galveston County, the zip code with the most Medicaid enrollees was 77573 in League City (4,133 enrollees).
- **Access to Primary Care:** Nearly four in ten (38.2%) adults in Harris County and one in four (23.4%) adults in Galveston County reported 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 Brazoria Galveston Counties due to low survey response rates.)
- **Emergency Department Care at MH Southeast for Primary Care Treatable Conditions:** Of MH Southeast's 51,639 ED visits in 2013, 52.3% were from patients who were uninsured or on Medicaid, and 34.8% were classified as non-emergent or with primary care treatable conditions. Of all ER visits, 6.6% were for chronic conditions of which 30.1% were hypertension related. Thirteen zip codes in the MH Southeast's CHNA-defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH Southeast in 2013.
- **Inpatient Care at MH Southeast for Ambulatory Care Sensitive Conditions:** Of MH Southeast's 16,017 inpatient discharges in 2015, 6,416 inpatient discharges, or 40.0%, were related to an ambulatory care sensitive condition. The top five ambulatory care sensitive conditions that resulted in inpatient care at MH Southeast in 2015 were congestive heart failure (181

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

Key informant interviewee

discharges), diabetes (173 discharges), chronic obstructive pulmonary disorder (126 discharges), bacterial pneumonia (124 discharges), and cellulitis (123).

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 did not just occur within geographic communities, but also within groups sharing a common issue.
- **Strong Schools:** The communities served by MH Southeast had several strong schools, according to key informants and focus group respondents, a factor that many described as contributing to population growth in the area. Informants also cited parental involvement in public schools as a community asset.
- **High-Quality Medical Care**: A key asset identified by key informants and focus group participants was the availability of health care services and the high quality of those services. The health care system is also described as having world-class acute care.
- **Strong Public Health and Social Service System**: The communities served by MH Southeast are supported by a dedicated network of public health and social service organizations. Communities are served by several non-profit and other charitable organizations or collaborations. Local school districts have implemented several strategies to promote well-being and health among students.
- **Economic Opportunity:** Many key informants and focus group participants described a robust local economy, creating economic opportunities for residents and businesses in the communities served by MH Southeast.

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.
- **Expand Availability and Access to Health Care Services:** Informants described a limited health care infrastructure in the MH Southeast area relative to other communities in the Greater Houston area. Others cited the importance of strengthening the school-based health clinic model in communities served by MH Southeast to promote child health and improve educational outcomes.
- **Expand Access to Behavioral Health Services.** Informants identified behavioral health care access as being a major unmet need in the communities served by MH Southeast.
- **Improve Transportation:** Transportation presents many problems in the communities served by MH Southeast, and stakeholders offered perspectives and ideas for future programs and services to alleviate the burden caused by traffic and the lack of transportation in some communities, particularly for lower income residents and seniors.
- **Provide Support to Navigate the Health Care System:** Residents need assistance in facing the number of barriers to accessing health care services in the communities served by MH Southeast. Stakeholders described existing strategies such as the incorporation of community health workers in health care settings, which they recommended should be expanded.
- **Promote Multi-Sector, Cross-Institutional Collaboration:** Health care and social service stakeholders frequently noted that, while many local services exist, they were more limited in the MH Southeast area relative to communities closer to Houston. There are opportunities to improve communication and collaborate to improve population health in the communities served by MH Southeast.

Key Themes and Conclusions

- **The growth 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. Physical and service-related infrastructures that do not keep up with demand leads to unmet need and sustains unhealthy habits in the community. Communities without easy access to healthy foods, safe roads, affordable housing, sidewalks, and prevention of violence are at a disadvantage in the pursuit of healthy living.

- **Harris County is unique in terms of demographics, and Harris and Galveston Counties had similar population health profiles.** While Galveston and Harris Counties experienced similar challenges in terms of population health, Harris County also had more accessible social and health resources and better public transportation for its residents than Galveston and Brazoria Counties.
- **Obesity and concerns related to maintaining a healthy lifestyle emerged as challenges for the region**. Barriers ranged from individual challenges of lack of time to prepare healthy foods or engage in physical activity to cultural issues involving cultural norms to structural challenges such as living in a food desert or having limited access to sidewalks, recreational facilities, or affordable fruits and vegetables. While several initiatives in the region are trying to address this issue, there appears ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, low-income communities, and youth).
- **Communities served by MH Southeast have several health care assets, but access to those services is a challenge for some residents.** Transportation to health services was identified as a substantial concern, especially for seniors and lower income residents, as 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, behavioral health, and specialty services as well as actively participating in their communities.
- **Although there is economic opportunity in the Greater Houston region, there are pockets of poverty and some residents face economic challenges that can affect health**. Seniors and members of low-income communities faced challenges in accessing care and resources compared to their younger and higher income neighbors. Strategies such as the incorporation of community health workers into health care systems may increase residents' ability to navigate an increasingly complex health care and public health system.
- **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 Southeast. Key informants particularly drew attention to the burden of mental illness in 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.

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 Southeast Hospital

Located in the heart of southeast Houston, Memorial Hermann Southeast Hospital (hereafter MH Southeast) has been caring for families in the Bay Area of Houston since 1986. A 274-bed facility, Memorial Hermann Southeast employs state-of-the-art technology and a team of highly trained and experienced affiliated physicians to offer exceptional care close to home. Some of these programs include the Convenient Care Center in Pearland, a breast cancer center, an emergency and trauma center, an esophageal disease center, an imaging center, a sleep disorders center, and alcohol and drug rehabilitation, cancer care, children's care, diabetes management, heart and vascular care, industrial medicine services, maternal fetal medicine, neuroscience, orthopedics and sports medicine, physical therapy, surgery, weight loss, wound care, women's care, and inpatient rehabilitation. In March 2017, Memorial Hermann Pearland, a 64-bed hospital located 14 miles from Memorial Hermann Southeast and operating under the Southeast license opened, providing medical/surgical, intensive and cardiac care, and labor and delivery services.

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, 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 Southeast is achieving its mission and meeting the needs of the community, and in furtherance of its obligations under the Affordable Care Act, MHHS undertook a community health needs assessment (CHNA) process in the spring of 2016. Health Resources in Action (HRiA), a non-profit public health consultancy organization, was engaged to conduct the CHNA.

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

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

Definition of Community Served for the CHNA

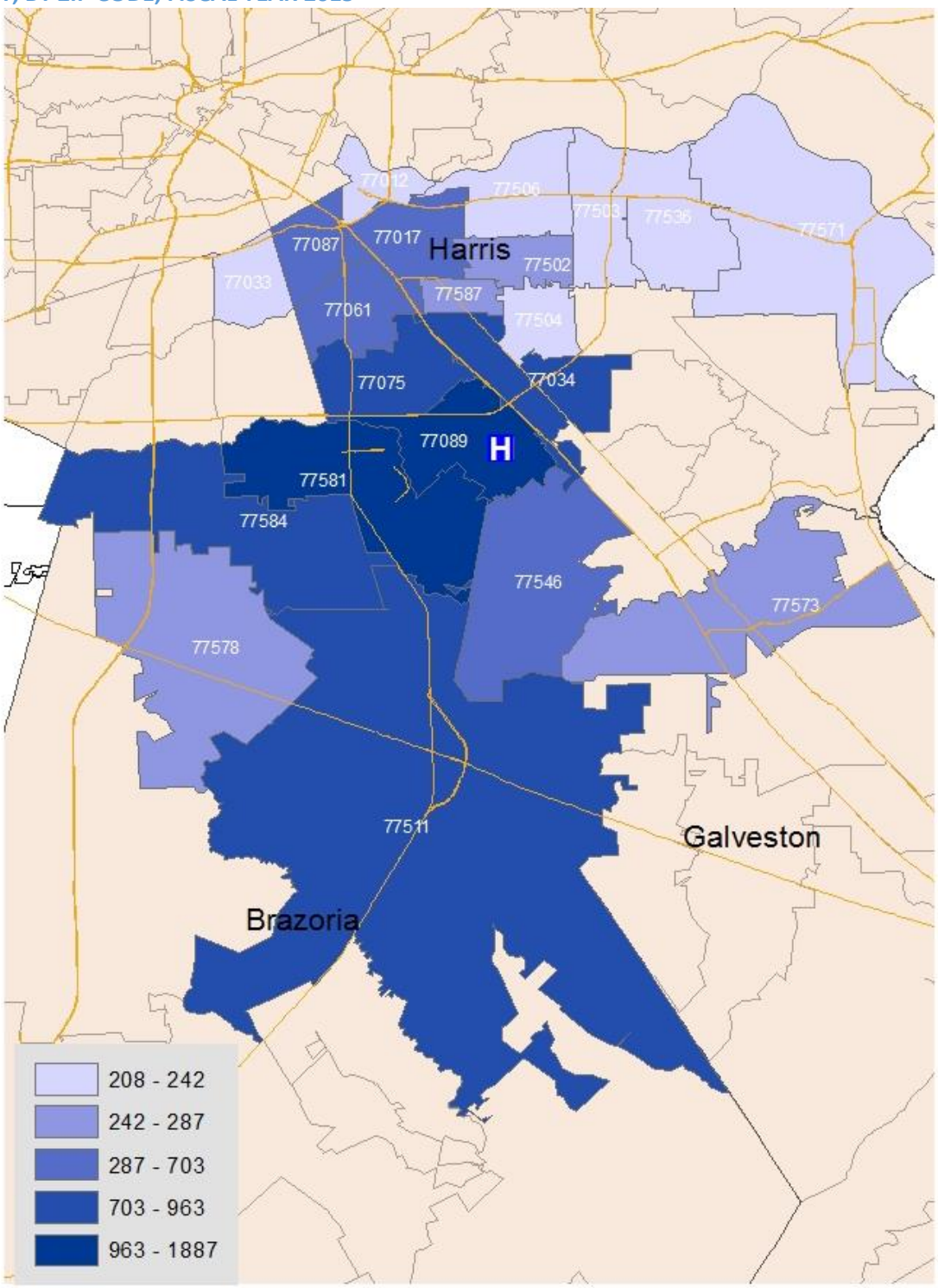
The CHNA process delineated for each facility's community using geographic cut-points based on its main service area. MH Southeast defines its community geographically as the top 75% of zip codes corresponding to inpatient discharges in fiscal year 2015. These selected zip codes correspond to the ten communities of Alvin, Deer Park, Friendswood, Houston, La Porte, League City, Manvel, Pasadena, Pearland, and South Houston within the counties of Brazoria, Galveston, and Harris. As shown in TABLE 1, a large majority of MH Southeast inpatient discharges in fiscal year 2015 occurred to residents of Harris County (63.4%) or Brazoria County (28.8%); only a small proportion of inpatient discharges occurred to Galveston County residents (7.8%). At a city level, most MH Southeast inpatient discharges occurred to residents of Houston (49.1%) followed by Pearland (19.5%). FIGURE 1 presents a map of MH Southeast's CHNA defined community.

TABLE 1. NUMBER AND PERCENT OF INPATIENT DISCHARGES IN THE MH SOUTHEAST COMMUNITY, BY COUNTY AND CITY, FISCAL YEAR 2015

Geography	# inpatient discharges	% inpatient discharges
Harris County	7,630	63.4%
Brazoria County	3,470	28.8%
Galveston County	936	7.8%
Houston	5,909	49.1%
Pearland	2,342	19.5%
Pasadena	951	7.9%
Alvin	871	7.2%
Friendswood	681	5.7%
South Houston	287	2.4%
Manvel	257	2.1%
League City	255	2.1%
La Porte	242	2.0%
Deer Park	241	2.0%

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 SOUTHEAST, BY ZIP CODE, FISCAL YEAR 2015



Zip codes
77089, 77581, 77075, 77584, 77511, 77034, 77017, 77546, 77061, 77087, 77587, 77502, 77578, 77573, 77571, 77536, 77506, 77504, 77012, 77033, 77503

Cities and towns
Alvin, Deer Park, Friendswood, Houston, La Porte, League City, Manvel, Pasadena, Pearland, and South Houston

Counties
Brazoria, Galveston, and Harris

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

APPROACH & METHODS

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

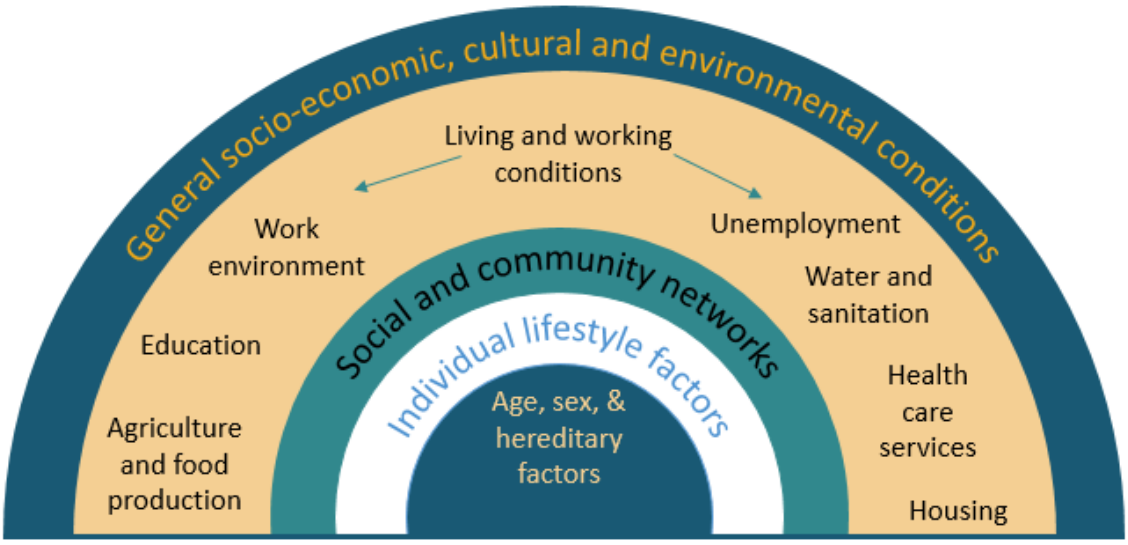
Study Approach

Social Determinants of Health Framework

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

FIGURE 2 provides a visual representation of this relationship, demonstrating how individual lifestyle factors, which are closest to health outcomes, are influenced by more upstream factors such as employment status and educational opportunities. This report provides information on many of these factors, as well as reviews key health outcomes among the residents of MH Southeast'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/ethnic discrimination, the built environment, and neighborhood level resources), a robust assessment should capture the disparities and inequities that exist for traditionally underserved groups. Thus a health equity lens guided the CHA process to ensure data comprised a range of social and economic indicators and were presented for specific population groups. According to Healthy People 2020, achieving health equity requires focused efforts at the societal level to address avoidable inequalities by equalizing the conditions for health for all groups, especially for those who have experienced socioeconomic disadvantage or historical injustices.

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

Methods

Quantitative Data

In order to develop a social, economic, and health portrait of MH Southeast'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 Southeast'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)
- Spanish-speaking Hispanic community members
- English-speaking Hispanic community members
- Asian-American community members
- Low-income community members from urban area
- Low-income community members from suburban area
- Low-income community members from rural area
- Community members of moderate to high socioeconomic status

Twenty-seven key informant discussions were conducted with individuals representing the MH Southeast 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., the Asian community representing the MH Southeast 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 Southeast 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 Southeast. Key informants were recruited by HRIA, working from recommendations provided by MHHS and MH Southeast.

Analysis

The collected qualitative data were coded using NVivo qualitative data analysis software and analyzed thematically for main categories and sub-themes. Data analysts identified key themes that emerged across all groups and interviews as well as the unique issues that were noted for specific populations relevant to the MH Southeast 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 Southeast's community. Selected paraphrased quotes – without personal identifying information – are presented in the narrative of this report to further illustrate points within topic areas.

Limitations

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

Likewise, secondary survey data based on self-reports, such as the Behavioral Risk Factor Surveillance 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 self-report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time.

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

COMMUNITY SOCIAL AND ECONOMIC CONTEXT

About the MH Southeast 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 Southeast community, particularly the diversity of the population, a committed base of social service programs, and parental involvement in youth's education. Over the past two decades, the communities served by MH Southeast have experienced population growth and economic transformation. Midway between Houston and the Bay area, several communities served by MH Southeast offer the balance of a small town feel that is within a reasonable distance to cultural and recreational opportunities in Houston and employment and recreational opportunities linked with the bay area, such as energy industries, commercial fishing industries, and boating centers. Boasting several new housing developments and several strong school districts, the MH Southeast area is expected to continue to grow, particularly as current freeway construction extends access to these communities.

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

Population Size and Growth

American Community Survey (ACS) estimates indicate that the Texas population increased by 9.5%— from 23,819,042 in 2005-2009 to 26,092,033 in 2010-2014 (TABLE 2). The total population across the three counties served by MH Southeast was 4,897,361 based on 2010-2014 ACS estimates, 18.8% of Texas' total population. Between the time periods 2005-2009 and 2010-2014, the population in the counties of Harris, Brazoria, and Galveston increased by 2.0%. Harris County was the fastest growing county within the MH Southeast community defined for this CHNA, with a 2.1% increase in 2010-2014 over the 2005-2009 period. Houston (population: 2,167,988) was the most populous city across the three counties served by MH Southeast. Manvel (population: 6,159) was the least populous city across the three counties served by MH Southeast.

TABLE 2. POPULATION SIZE AND GROWTH ESTIMATES FOR 2005-2009 AND 2010-2014, 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%
MH Southeast*	4,798,447	4,897,361	2.0%
Harris County	4,182,285	4,269,608	2.1%
Brazoria County	319,493	325,477	1.9%
Galveston County	296,669	302,276	1.9%
Houston	2,191,400	2,167,988	-1.1%
Pearland	76,095	97,427	28.0%
Pasadena	146,004	152,171	4.2%
Alvin	22,585	24,938	10.4%
Friendswood	33,485	37,001	10.5%
South Houston	16,408	17,323	5.6%
Manvel	5,042	6,159	22.2%
League City	66,488	88,979	33.8%
La Porte	28,423	27,224	-4.2%
Deer Park	30,320	32,965	8.7%

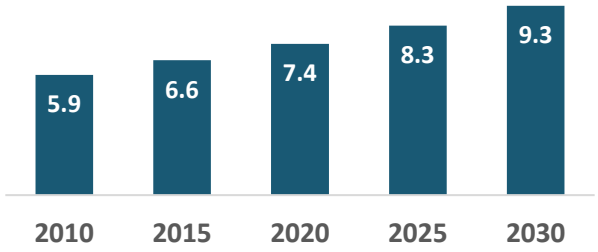
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2005-2009 and 2010-2014

*Population size for entire MH Southeast community

Focus group participants and key informants indicated that the area served by MH Southeast were experiencing fast-paced population growth, a trend that makes the community stand out nationally. As one key informant interviewee noted, *"[There has been] rapid growth in [the]*

population in the last 5 years. Houston is booming." Focus group participants reported that population influx has had an effect on their community: *"Highways are continually growing. There are so many developments."* Rapid population growth in the Greater Houston area is a pattern expected to continue well beyond this decade. The Houston metropolitan area is projected to increase from 5.9 million in 2010 to 9.3 million in 2030 (FIGURE 3).

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



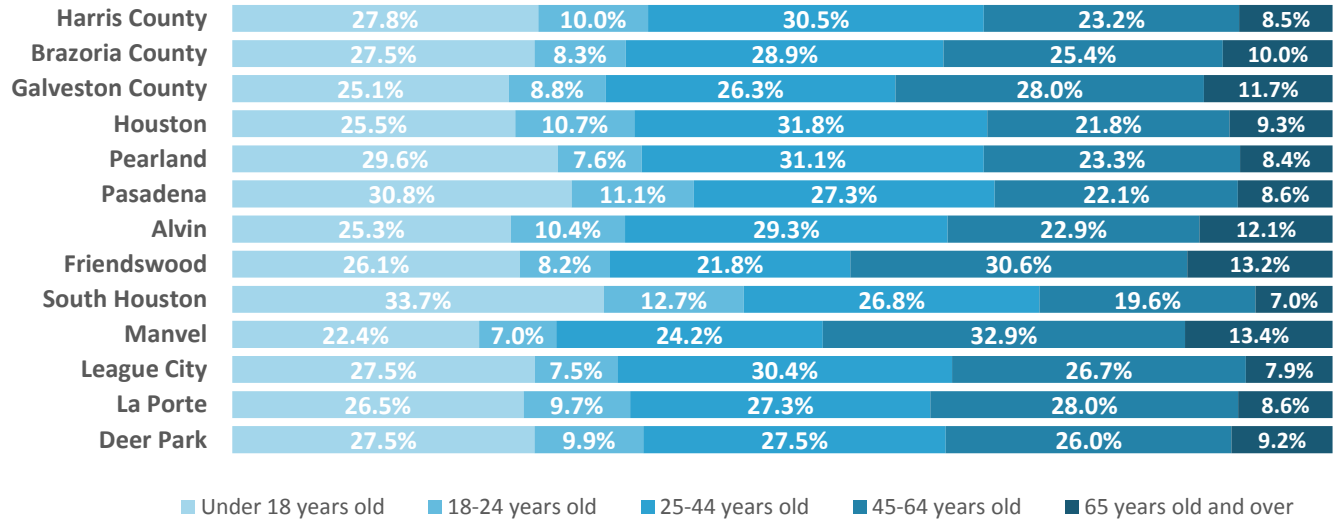
DATA SOURCE: Texas State Data Center, as cited by Greater Houston Partnership Research Department in Social, Economic, and Demographic Characteristics of Metro Houston, 2014
NOTE: Population projections assume the net immigration from 2010 to 2030 to be equal to that from 2000 to 2010
*Houston-The Woodlands-Sugar 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

Age Distribution

As populations age, the needs of the community shift based on increased overall need for health care services. FIGURE 4 shows the age distribution for each of the counties and communities served by MH Southeast. Among the three counties served by MH Southeast, Harris and Brazoria Counties had the youngest populations with more than 27% being under 18 year old. While a smaller portion of the service area, Galveston County had the largest population of residents 65 years of age and older (11.7%). Among municipalities served by MH Southeast, Pasadena (30.8%) and South Houston (33.7%) had the youngest population, and Manvel (13.4%) and Friendswood (13.2%) had the highest proportion of residents 65 years of age and older. It is important to note that Galveston County contributes smallest proportion of patients at MH Southeast compared to Harris and Brazoria Counties.

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

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



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

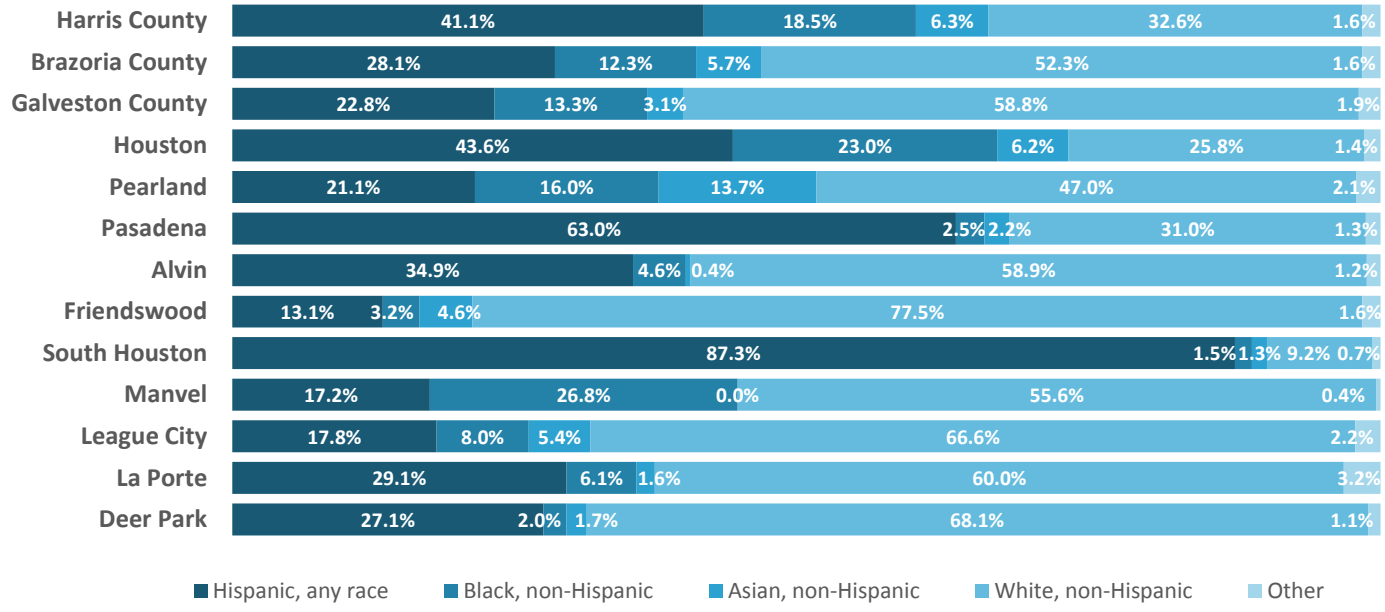
Racial and Ethnic Distribution

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

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

At the County level, Harris County was predominantly comprised of residents who self-reported their racial and ethnic identity as Hispanic (41.1%) or White, non-Hispanic (32.6%). Harris County also had the largest proportion of residents who identified as Black, non-Hispanic (18.5%) or Asian, non-Hispanic (6.3%). Among cities and towns served by MH Southeast, South Houston (87.3%) had the largest self-identified Hispanic population, followed by Pasadena (63.0%), and Houston (43.6%). Manvel (26.8%) and Houston (23.0%) had the highest percent of self-identified Black, non-Hispanic residents. The largest proportion of self-identified Asian residents lived in Pearland (13.7%), followed by Houston (6.2%). FIGURE 5 illustrates the racial and ethnic distribution of MH Southeast's community.

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



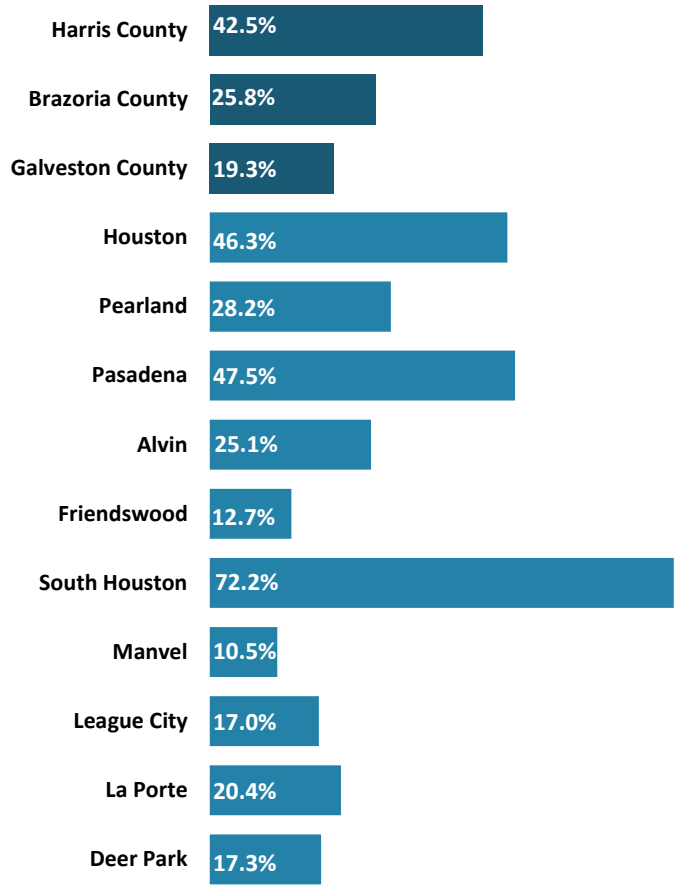
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013
NOTE: Other includes American Indian and Alaska Native, non-Hispanic; Native Hawaiian and Other, non-Hispanic; and Two or more races, non-Hispanic

Linguistic Diversity and Immigrant Population

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

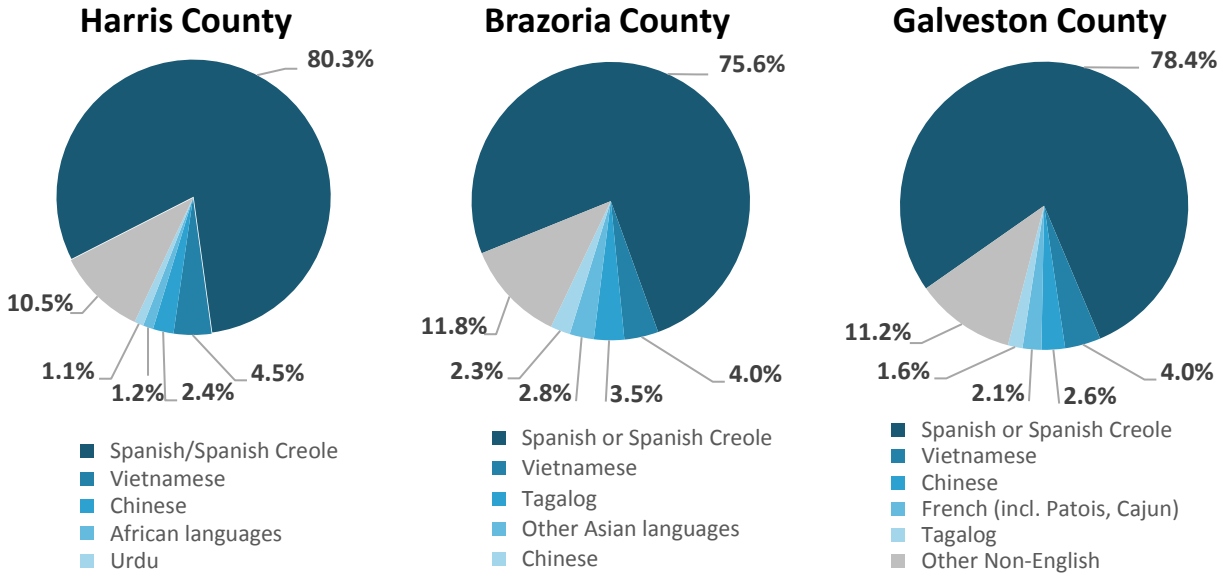
MH Southeast serves a community that speaks many languages other than English. Approximately four in ten residents in Harris County (42.5%) spoke a language other than English at home (FIGURE 6), whereas one in four (25.8%) residents in Brazoria County and one in five (19.3%) Galveston County residents spoke a non-English language at home. Among MH Southeast communities, 72.2% of residents of South Houston, and nearly half of residents in Pasadena (47.5%) and Houston (46.3%) spoke a language other than English at home, compared to 10.5% of residents in Manvel. In conversations, key informants discussed the challenges that non-English speakers face in navigating the U.S. health care system. FIGURE 7 shows the top five non-English languages spoken by County. There was a sizable population of non-English speakers who spoke Spanish or Spanish Creole: 80.3% in Harris County, 78.4% in Galveston County, and 75.6% in Brazoria County. Among the three counties served by MH Southeast, Vietnamese was the second most common non-English language spoken at home.

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

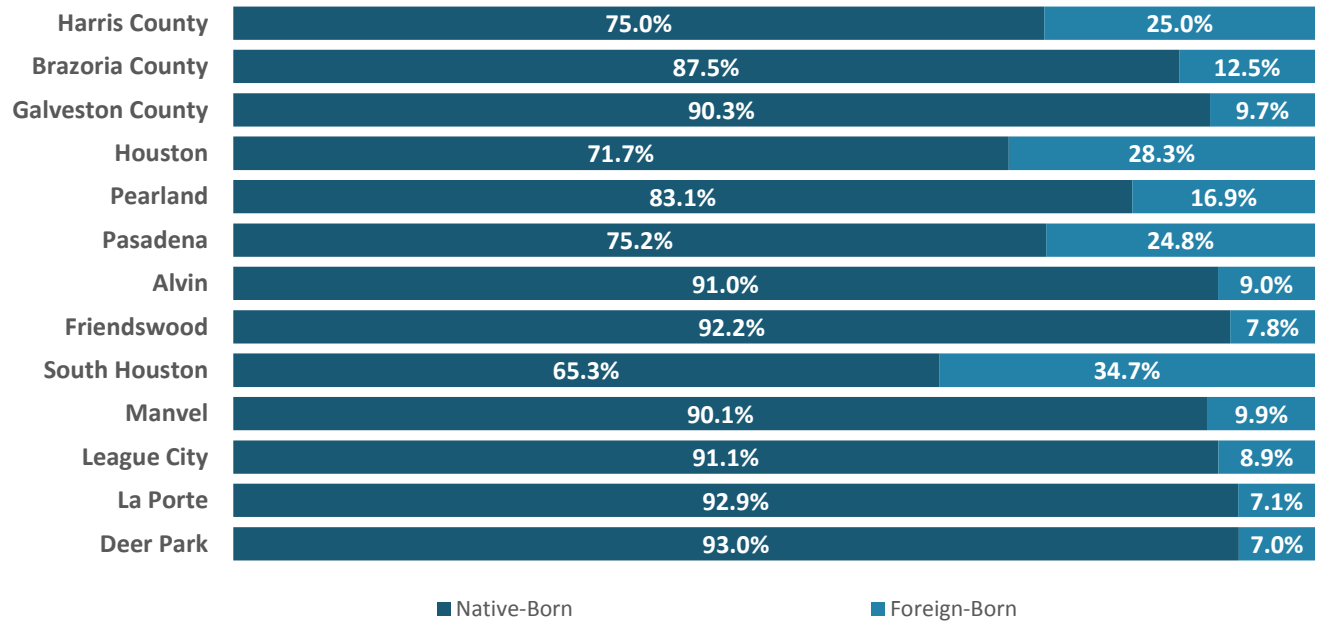
FIGURE 7. TOP FIVE NON-ENGLISH LANGUAGES SPOKEN, BY COUNTY, 2009-2013



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 immigrants groups originate from Mexico and Vietnam, whereas the newest immigrants originate from Guatemala and Honduras. Focus group participants and key informants consistently described the MH Southeast community as a collection of immigrants from both within and outside of the United States. One focus group participant explained, *"People are from all over. You see it on the playground, people speaking all different languages."* These qualitative observations were reflected in demographics of the MH Southeast community. American Community Survey estimates from 2009-2013 indicate that one in four residents in Harris County (25.0%) was foreign-born, whereas only 12.5% of Brazoria County residents and 9.7% of Galveston County residents was foreign-born (FIGURE 8). Among MH Southeast communities, one third of South Houston (34.7%) residents and approximately one quarter of Houston (28.3%) and Pasadena (24.8%) residents was foreign-born. 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

> ***"[A majority of] students district-wide are on free and reduced lunch. [There are] pockets of middle-income families."***
>
> **Key informant interviewee**

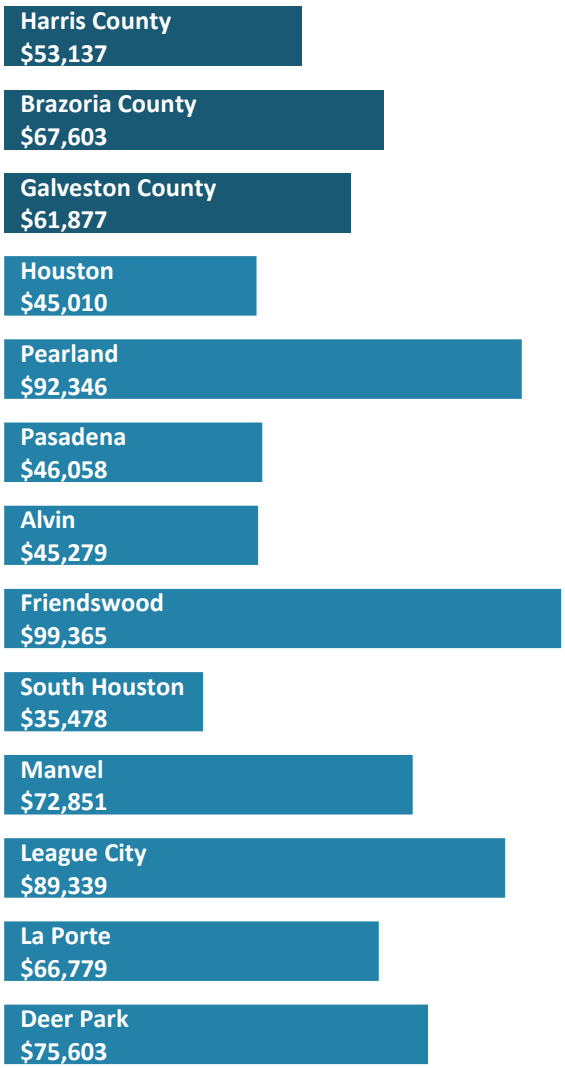
Income and Poverty

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 reported that many residents faced a choice between paying for essentials such as food and rent and receiving health care. For example, one key informant shared, *"[Low-income residents] will suffer the consequences of untreated condition. Do I pay my light bill or put groceries on the table or do I pay someone to look at me?"* One focus group participant described the day-to-day experience of living on a limited income, particularly among residents with a disability: *"A lot of people are on a fixed income. They depend on disability. A lot of us go to the Pantry."* Though some key informants described neighborhoods where lower-income residents have historically resided, others noted communities that were recently experiencing a growth in the lower-income population: *"[There is a] rapidly evolving location of where poor people are. [The] southeast and northeast sides of Houston used to be where [lower-income residents] lived."*

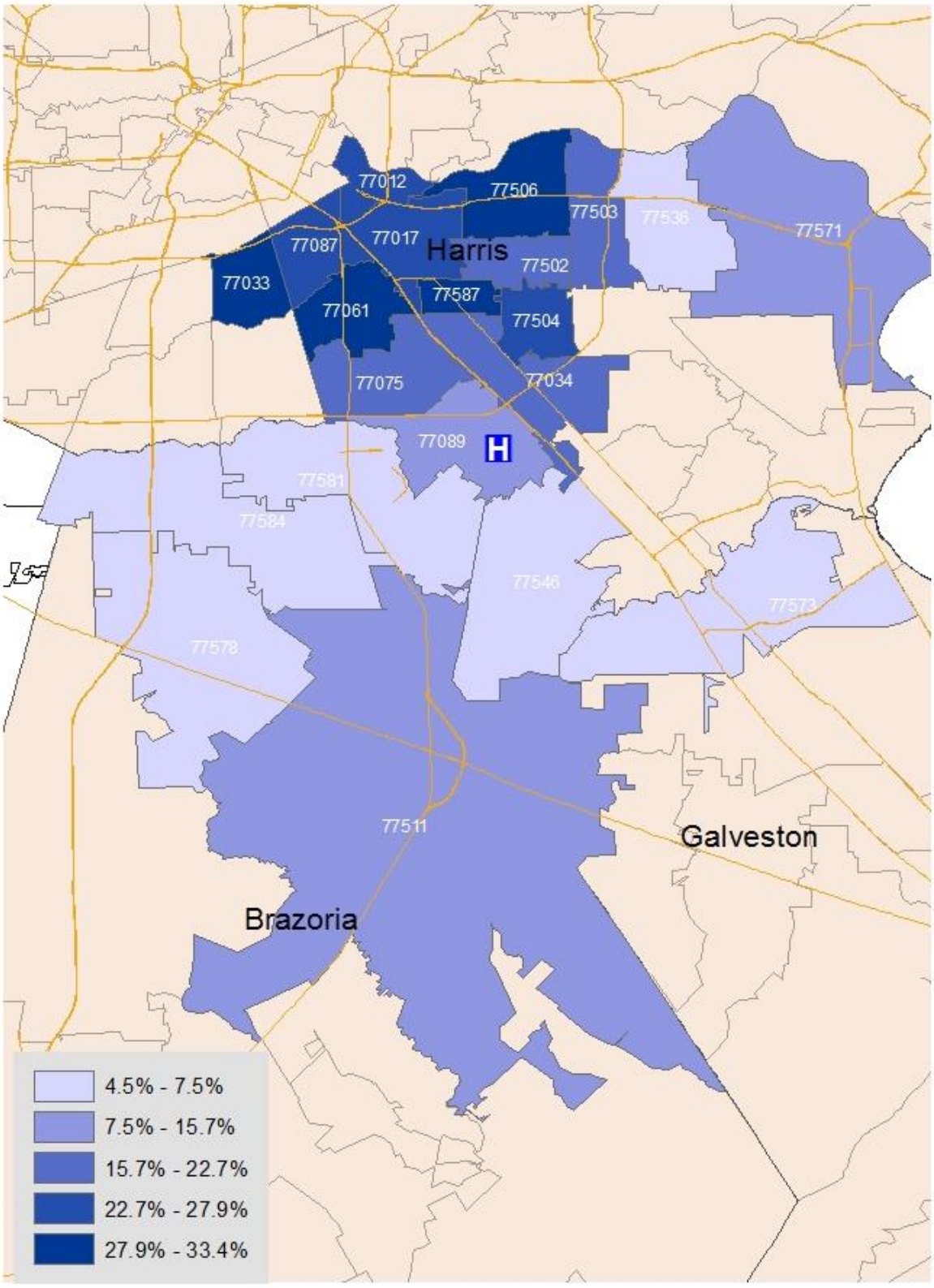
Data from the 2009-2013 American Community Survey show that the median household income in the three counties served by MH Southeast ranged from $53,137 in Harris County to $67,603 in Brazoria County. The median household income also varied by town. In 2013, Friendswood ($99,365) has the highest median household income and South Houston had the lowest ($35,478) (FIGURE 9). FIGURE 10 shows the percent of adults with incomes below the poverty line in 2009-2013. Across the three counties served by MH Southeast, the proportion of adults with incomes below the poverty line ranged from a high of 15.1% of Harris County residents to a low of 9.9% of Brazoria County residents. Among cities and towns served by MH Southeast, the percent of adults with incomes below the poverty line was highest in South Houston (24.2%), Houston (18.6%), and Pasadena (17.6%). In contrast, less than one in ten residents in the communities of Pearland, Friendswood, League City, La Porte, and Deer Park were below the poverty level.

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



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

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

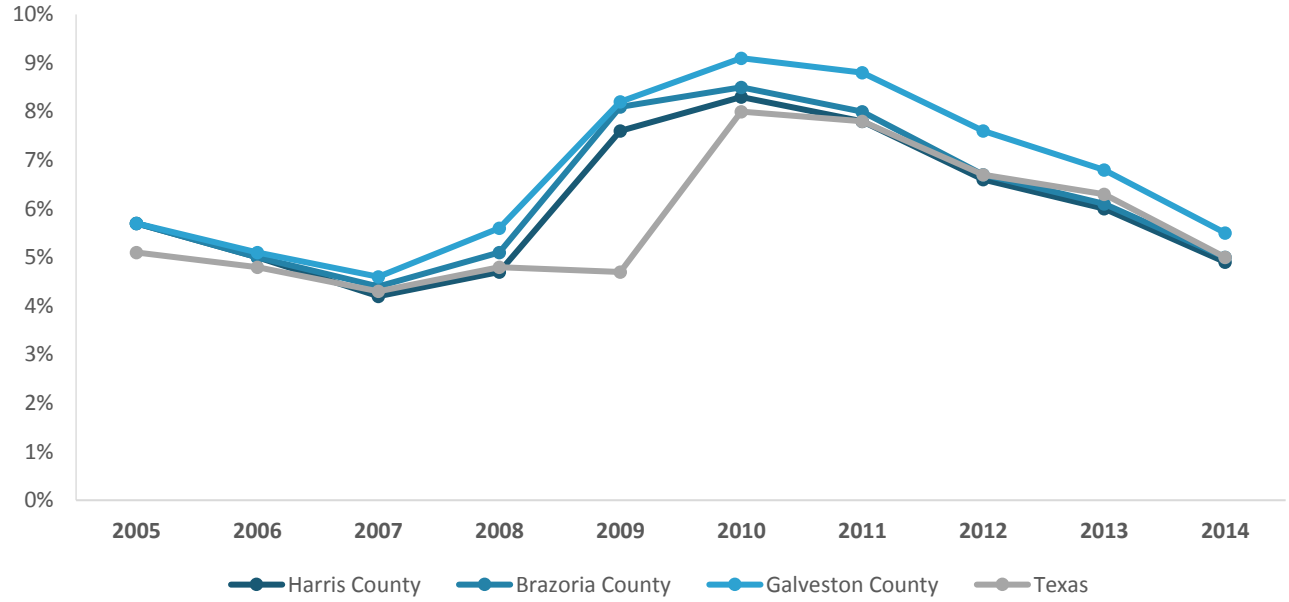


DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

Employment

Employment status also can have a significant impact on one's health. Many focus group participants and key informant interviewees reported the economic outlook of the Greater Houston area was positive. As one informant explained, *"Even [though] the rest of the country has experienced [an] economic downturn, we are just now hitting that. It may be due to our diversification of industry."* Alongside informants' reports of a robust economy, several also noted the recent decreases in employment opportunities: *"[The economic downturn] has really impacted our families – [they're] losing jobs, losing [health] insurance. Families are reaching out to the schools for help. [We're seeing] behavioral issues from kids dealing with stressors of lost jobs, multi-dwelling families, split families, etc."* Data from the American Community Survey show that the unemployment rates for Texas and all three counties served by MH Southeast peaked in 2010 but have decreased consistently over the past five years (FIGURE 11). For example, unemployment was at 8.3% for Harris County and fell to 4.9% in 2014. This pattern was similar across the region.

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



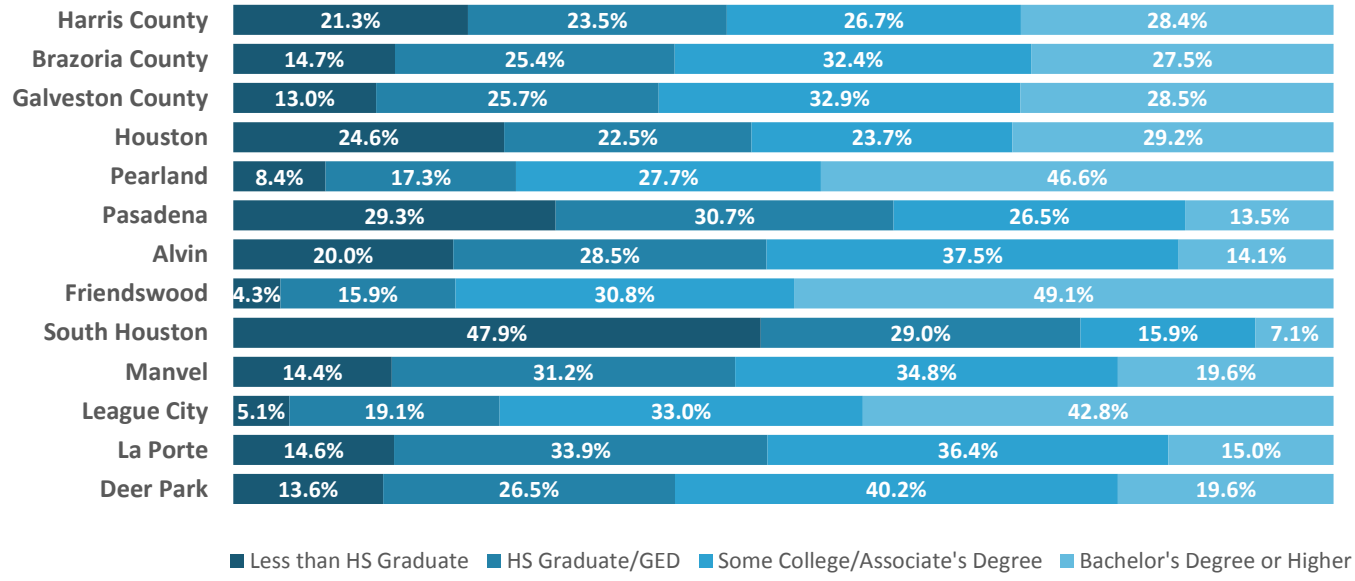
DATA SOURCE: Bureau of Labor Statistics, Local Area Unemployment Statistics, Labor force data by county; and Bureau of Labor Statistics, Current Population Survey, Annual Averages, 2005-2014

Education

Educational attainment is often associated with income, and higher educational levels can translate to greater health literacy. Informants described MH Southeast's schools as strong, and an important resource for addressing the social, health, and educational needs of youth in the area. At the county level, Harris County (44.8%) had the highest proportion of residents with a high school diploma or less (FIGURE 12). Across all three counties served by MH Southeast, more than one quarter of residents had a bachelor's degree or higher. Compared to other municipalities served by MH Southeast, South Houston (76.9%) and Pasadena (60.0%) had the highest percentage of residents with high school diploma or less. The communities of Friendswood (49.1%), Pearland (46.6%), and League City (42.8%) had the highest proportion of residents with a bachelor's degree or higher. Experiences in school among youth predict a range of health issues in addition to economic productivity later in the life course. High school student focus group participants expressed concern about the level of stress they experienced as they pursue their academics and aspire to higher education. For example, one high school student focus group participant noted, *"College wasn't as hard to get into back then as it is now*," when referring to the pressure that parents and teachers expressed to get into college. Students also talked about stress as a problem not well understood by educators and parents. A high school student focus group participant illustrated this concept: *"My dad didn't think stress was a thing for kids. My brothers talked sense into my parents. Still my dad says, 'you're a kid, you don't know what stress is.'"*

> ***"I do think Houston does a good job with caring for kids. Education is important here."***
>
> **Key informant interviewee**

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



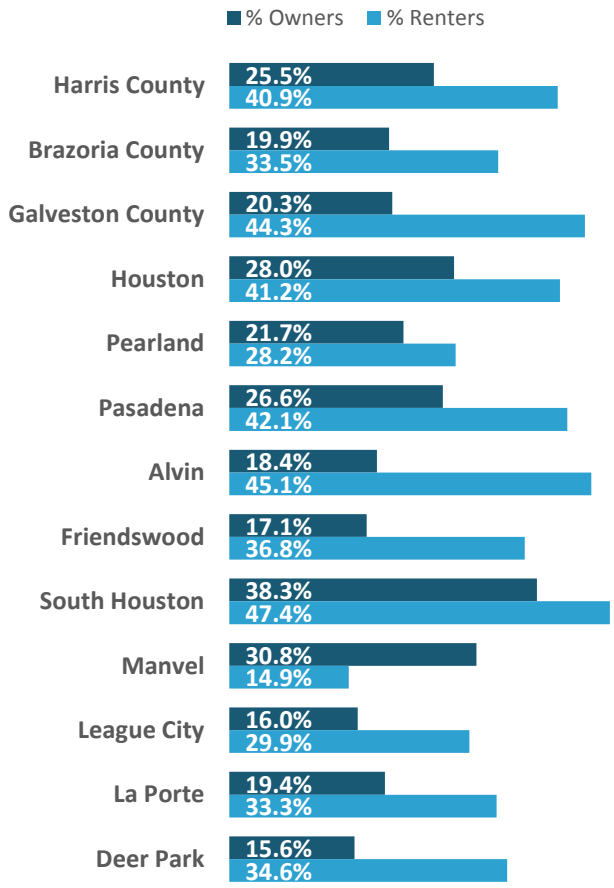
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

Housing

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

Across the three counties served by MH Southeast, the monthly median housing costs for home-owners were relatively similar, ranging from a low of $1,199 in Brazoria County to a high of $1,232 in Harris County. For renters, monthly median housing costs ranged from $865 in Brazoria County to $900 in Galveston County (data not shown). Among the municipalities served by MH Southeast, housing costs for home-owners ranged from $1,188 in South Houston to $2,083 in Friendswood; for renters, housing costs were lowest in South Houston ($685) and highest in Manvel ($1,342). In all counties, a higher percentage of renters compared to home-owners paid 35% or more of their household income towards their housing costs (FIGURE 13). In Harris County, for example, 40.9% of renters paid more than 35% of their income towards housing costs, relative to 25.5% of home-owners. With the exception of the community of Manvel, across other municipalities served by MH Southeast, compared to home-owners, a larger proportion of renters paid 35% or more of their household income towards housing costs.

FIGURE 13. PERCENT HOUSING UNITS WHERE HOME-OWNERS AND RENTERS HAVE HOUSING COSTS THAT ARE 35% OR MORE OF HOUSEHOLD INCOME, BY COUNTY AND CITY, 2009-2013



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

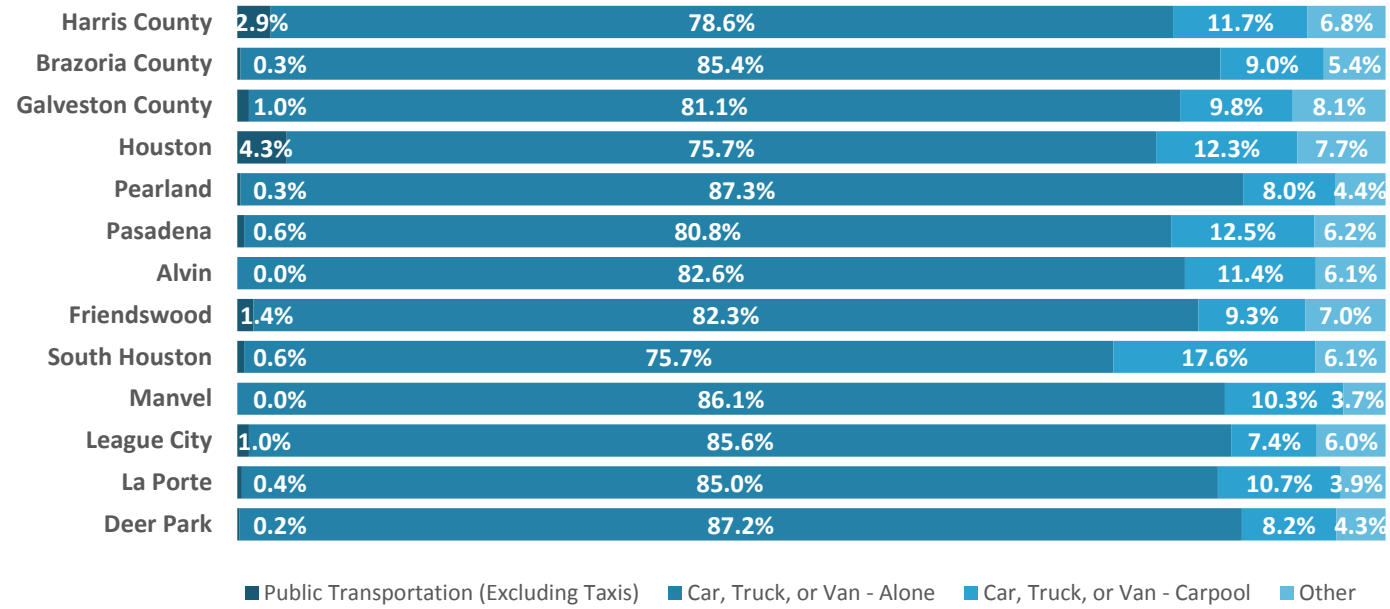
Transportation

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

There were conflicting assessments about the availability and quality of public transportation. One key informant reported: *"We're … very car centric, car focused. … [We] don't like alternative modes of transportation. We have super super highways. They exceed any expectations for any definition of highways."* However, another informant shared the perspective that "*The Metro just finished rerouting the busses, so now it seems more efficient and well thought out. They're also building new metro lines in. All of these things are making the city more interconnected."* Focus group respondents, particularly seniors living in areas where public transportation is largely unavailable, reported resources in the community that provide transportation to residents, depending on where they live. As reported by a senior focus group participant, *"They have taxi services for seniors. You get a voucher once a month in Pasadena. South Houston doesn't have the taxis."*

As reflected in the focus groups and interviews, approximately eight in ten residents in the three counties served by MH Southeast commuted to work by driving alone in a car, truck, or van (FIGURE 14). Among counties served by MH Southeast, Harris County (2.9%) had the highest proportion of residents who commuted by public transportation. Across all municipalities served by MH Southeast, Pearland (87.3%) and Dear Park (87.2%) had the highest percentage of workers who commuted driving alone in a car, truck, or van, and Houston (4.3%) had the highest proportion of workers who commuted by public transportation.

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

Crime and Violence

Exposure to crime and violence can have an impact on both mental and physical health. Certain geographic areas may have higher rates of violence, which can serve as stressors for nearby residents. Violence can include physical, social, and emotional violence, such as bullying, which can occur in person or online. Focus group participants and key informants described the priority of violence as a top issue as being dependent on where you live. For example, one focus group participant in South Houston reported, *"I'm afraid to walk outside. There are people who watch for the elderly who walk around and wait to assault them."* Another participant from the MH Southeast area countered, *"I walk around everyday. It feels safe."* Another focus group participant noted, *"There's gang violence."* A few focus group participants mentioned the recent open-carry gun policy as a crime-related concern.

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

As shown in TABLE 3, rates of violent crime were highest in Harris County (691.4 offenses per 100,000 population) and lowest in Brazoria County (142.9 offenses per 100,000 population).Harris County also had the highest property crime rate with 3,825 crimes per 100,000 population, while Brazoria had the lowest (1,746 crimes per 100,000 population). . Among municipalities served by MH Southeast, the violent crime rate was highest in Houston (954.8 offenses per 100,000 population) and lowest in Friendswood (26.3 offenses per 100,000 population). The property crime rate was highest in Houston (4,693.7 offenses per 100,000 population) and lowest in Friendswood (865.5 offenses per 100,000 population).

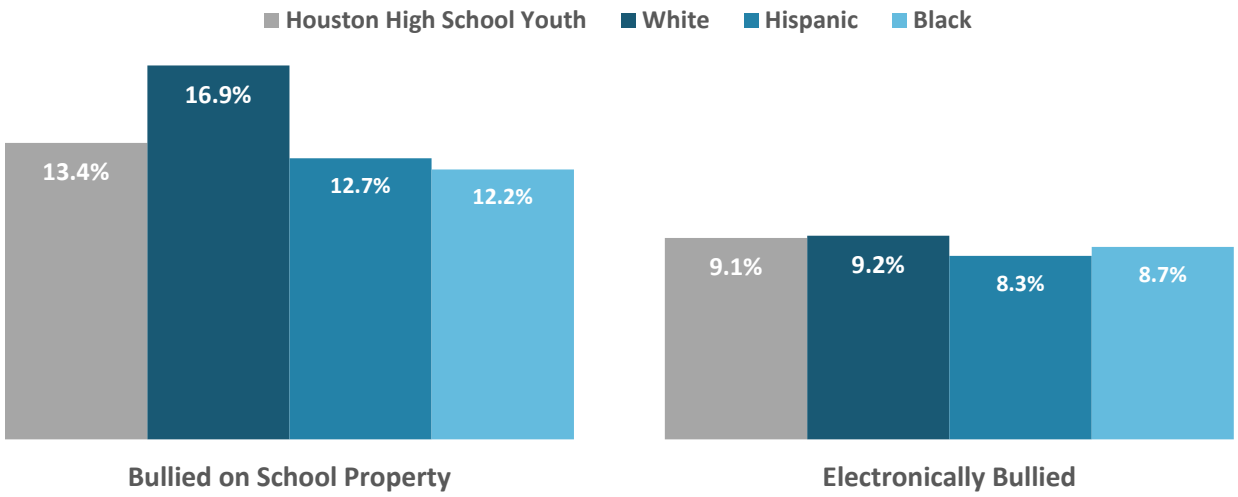
Focus group participants and key informant interviewees did not specifically identify bullying in schools or cyberbullying as major issues in their communities. According to the Centers for Disease Control and Prevention High School Youth Risk Behavior Survey, in 2013 13.4% of Houston high school students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

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

Geography	Violent Crime Rate	Property Crime Rate
Harris County	691.4	3825.0
Brazoria County	142.9	1746.2
Galveston County	225.2	2833.3
Houston	954.8	4,693.7
Pearland	113.2	2,002.6
Pasadena	324.4	3,015.5
Alvin	182.2	2,760.2
Friendswood	26.3	865.5
South Houston	445.9	3,429.7
Manvel	42.9	1,243.2
League City	73.2	1,947.4
Deer Park	101.4	2,040.4

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

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



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

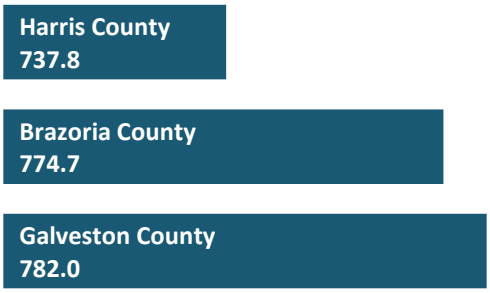
HEALTH OUTCOMES AND BEHAVIORS

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

Overall Leading Causes of Death

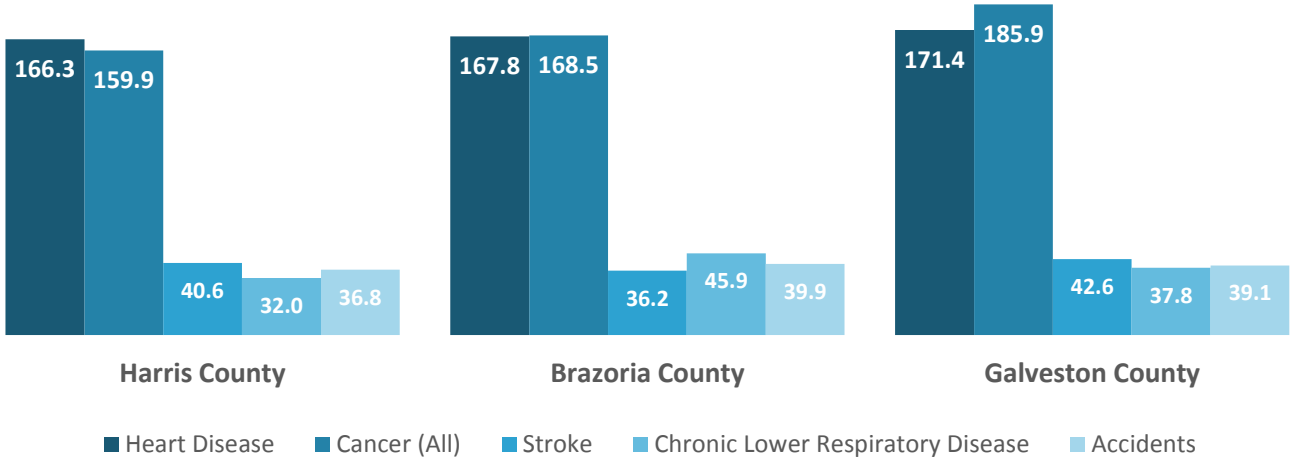
Mortality statistics provide insights into the most common causes of death in a community. An overview of the health status of communities served by MH Southeast can be helpful for planning programs and policies focused on leading causes of death. According to the Texas Department of State Health Services, of the three counties served by MH Southeast, Galveston County experienced the highest overall mortality rate (782.0 per 100,000 population) (FIGURE 16). Similarly, in 2013, Galveston County had the highest mortality rates for heart disease, cancer, and stroke compared to Harris and Brazoria Counties (FIGURE 17). Mortality rates due to chronic lower respiratory disease and accidents were highest in Brazoria County. TABLE 4 presents the leading causes of death by age and county in 2013.

FIGURE 16. MORTALITY FROM ALL CAUSES FOR ALL AGES AGE-ADJUSTED RATE PER 100,000 POPULATION, BY COUNTY, 2013



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

FIGURE 17. LEADING CAUSES OF DEATH PER 100,000 POPULATION, BY COUNTY, 2013



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

TABLE 4. LEADING CAUSES OF DEATH, MORTALITY RATE PER 100,000 POPULATION, BY AGE AND COUNTY, 2013

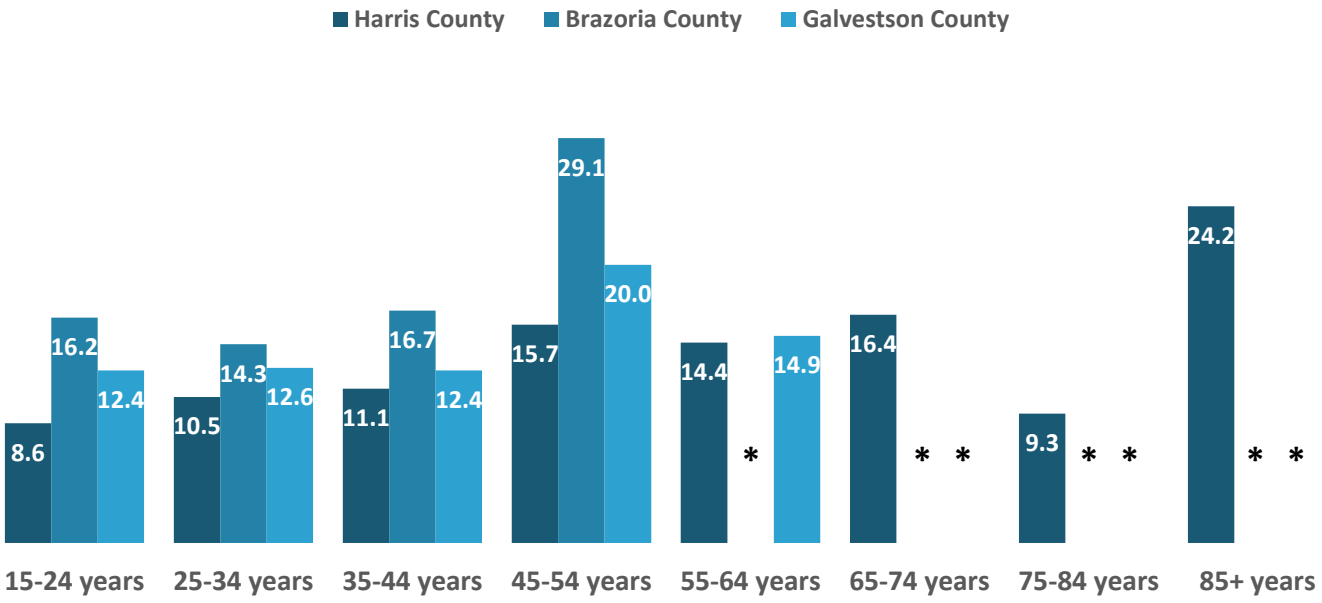
		Harris County	Brazoria County	Galveston County
Under 1 year	Certain Conditions Originating in the Perinatal Period	347.5	211.8	169.7
	Congenital Malformations, Deformations and Chromosomal Abnormalities	133.9	-	242.5
	Homicide	19.9	-	-
	Accidents	12.8	-	-
	Septicemia	8.5	-	-
1-4 years	Cancer	4.4	-	-
	Accidents	4.1	-	-
	Congenital Malformations, Deformations and Chromosomal Abnormalities	2.6	-	-
	Heart Disease	1.9	-	-
5-14 years	Cancer	3.7	-	-
	Accidents	2.8	-	-
	Chronic Lower Respiratory Diseases	0.8	-	-
	Heart Disease	0.8	-	-
15-24 years	Accidents	24.1	25.5	34.8
	Homicide	16.2	11.6	12.4
	Suicide	8.6	16.2	12.4
	Cancer	4.8	-	-
	Heart Disease	2.3	-	-
25-34 years	Accidents	24.7	64.2	35.3
	Homicide	14.9	-	-
	Cancer	11.2	16.6	15.1
	Suicide	10.5	14.3	12.6
	Heart Disease	5.9	21.4	-
35-44 years	Cancer	29.3	24.4	32.3
	Accidents	28.2	36.7	37.2
	Heart Disease	19.3	16.3	39.7
	Suicide	11.1	-	12.4
	Homicide	9.8	-	-
45-54 years	Cancer	95.5	117.2	135.8
	Heart Disease	82.2	60.7	64.6
	Accidents	42.5	48.1	53.4
	Chronic Liver Disease and Cirrhosis	22.1	39.8	24.5
	Suicide	15.7	*	20.0
	Homicide	*	16.7	-
55-64 years	Cancer	273.3	307.3	402.8
	Heart Disease	194.8	169.5	201.4
	Accidents	49.7	53.0	42.3
	Stroke	39.5	39.7	39.8
	Diabetes	38.2	*	*
	Chronic Liver Disease and Cirrhosis	*	55.6	59.7
65-74 years	Cancer	618.1	677.3	683.9
	Heart Disease	419.8	456.2	417.4
	Chronic Lower Respiratory Diseases	97.9	155.2	137.7
	Stroke	92.0	94.1	119.9

		Harris County	Brazoria County	Galveston County
65-74 years	Diabetes	71.0	80.0	*
	Septicemia	*	*	79.9
75-84 years	Heart Disease	1,166.1	1,248.7	1,168.9
	Cancer	1,115.1	1,086.3	1,131.8
	Stroke	304.3	284.3	324.7
	Chronic Lower Respiratory Diseases	274.6	416.2	371.1
	Septicemia	173.5	*	*
	Alzheimer's Disease	*	284.3	*
	Diabetes	*	*	139.2
85+ years	Heart Disease	3,459.7	3,371.1	3,759.8
	Cancer	1,586.9	1,553.9	1,773.5
	Stroke	957.0	763.8	898.6
	Chronic Lower Respiratory Diseases	627.5	816.4	496.6
	Alzheimer's Disease	574.2	553.1	709.4

DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013
NOTE: Dash (-) denotes unreliable rate; Asterisk (*) indicates cause of death not one of the top five leading causes

Among the three counties served by MH Southeast, suicide was more common among people 45 to 54 years of age. In Harris County, the only county for which suicide mortality rates were available for persons aged 55 years or older, persons 85 years of age or older were the most likely age group to commit suicide in 2013, with a rate of 24.2 suicides per 100,000 population (FIGURE 18).

FIGURE 18. SUICIDE MORTALITY RATE PER 100,000 POPULATION, BY AGE AND COUNTY, 2013



DATA SOURCE: Texas Department of State Health Services, Texas Health Data, Deaths of Texas Residents, 2013
NOTE: Asterisk (*) denotes unreliable rate due to small numbers

Chronic Diseases and Related Risk Factors

Diet, exercise, stress, and other biological conditions are risk factors for chronic diseases. Access to healthy food and opportunities for physical activity depend on not only individual choices but also on the environment in which individuals, families, and communities live, work, and age, the economic resources they have access to, and the larger social context in which they operate. The prevention and management of chronic diseases is important for preventing disability and death, and also for maintaining a high quality of life.

Access to Healthy Food and Healthy Eating

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

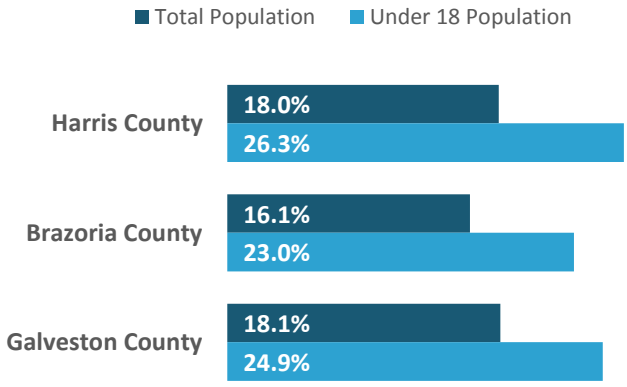
Food Access

Focus group participants and key informants consistently identified food insecurity as a major issue affecting the community. For example, a key informant interviewee discussed limited access to healthy food choices, *"[The] majority lack access to fresh fruit and vegetables. Inexpensive, high fat, high salt, high sugar foods are what are available … Local convenience stores don't carry the best food."* Another informant described how financial strain limited food options even if healthy food choices were abundant, *"When all you can afford is McDonalds, that's what they're going to eat. Even in a large [area] like Houston that has ample resources, food deserts are a problem."*

As illustrated in FIGURE 19, the prevalence of food insecurity was relatively similar for the total population across all three counties served by MH Southeast. Children were more likely to be food insecure than adults. In Harris, Galveston, and Brazoria Counties, approximately one quarter of all children under 18 years of age were considered to be food insecure. Across the three counties served by MH Southeast, approximately one in ten households received benefits from the Supplemental Nutrition Assistance Program (SNAP), the program providing nutritional assistance for low-income families (FIGURE 20). The proportion of households receiving SNAP assistance ranged from 9.8% of households in Brazoria County to 12.6% of households in Harris County.

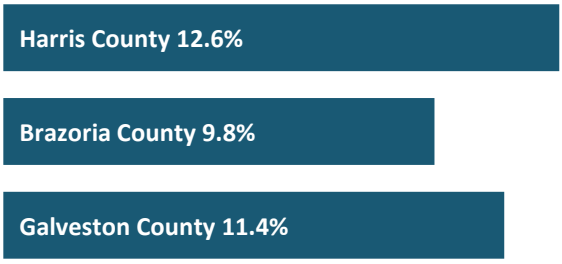
> ***"There's much more that needs to be done in regards to after school snacks, healthy lunches, and summer meals. We need healthy corner stores in areas that don't have grocery stores."***
>
> **Key informant interviewee**

FIGURE 19. PERCENT FOOD INSECURE BY TOTAL POPULATION AND UNDER 18 YEARS OLD POPULATION, BY COUNTY, 2013



DATA SOURCE: Map the Meal Gap, 2015
NOTE: Food insecurity among children defined as self-report of two or more food-insecure conditions per household in response to eight questions on the Community Population Survey.

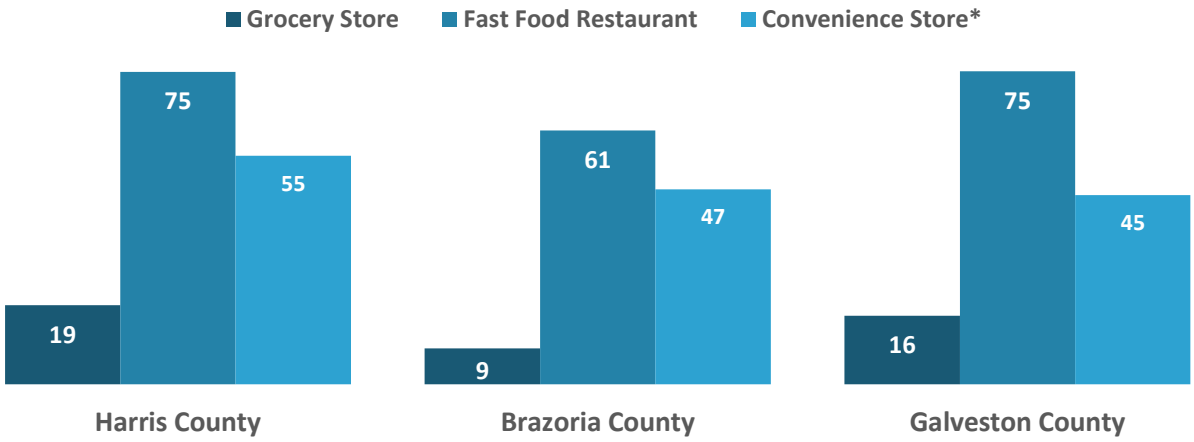
FIGURE 20. PERCENT HOUSEHOLDS RECEIVING SNAP BENEFITS, BY COUNTY, 2009-2013



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

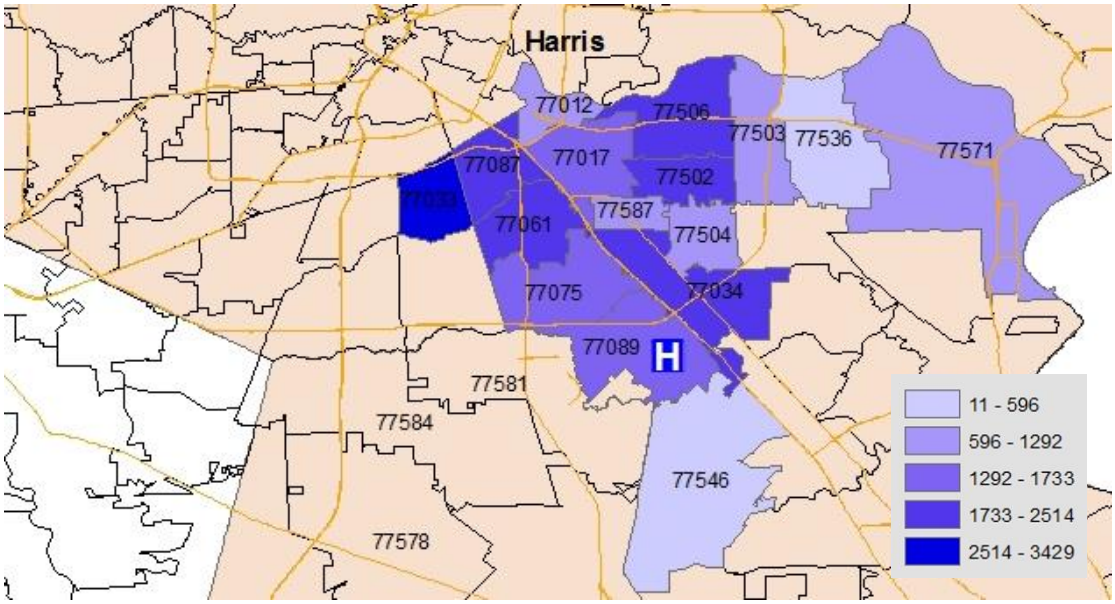
According to the US Department of Agriculture, in 2013 in the three counties served by MH Southeast, access to grocery stores ranged from 9 grocery stores per 100,000 population in Brazoria County to 19 grocery stores per 100,000 population in Harris County (FIGURE 21). Access to fast food restaurants was greatest in Harris and Galveston Counties (75 fast food restaurants per 100,000 population, each) and lowest in Brazoria County (61 fast food restaurants per 100,000 population). In 2012, the density of convenience stores was highest in Harris County (55 convenience stores per 100,000 population) and lowest in Galveston County (45 convenience stores per 100,000 population). As shown in FIGURE 23, low-income residents across the three counties served by MH Southeast had varied access to farmer's markets. Galveston County low-income residents had the greatest access to farmer's markets (31.8%), and Brazoria County low-income residents had the lowest access to farmer's markets (10.4%). Among zip codescorresponding to MH Southeast's community, Houston zip code 77033 had the highest number of calls (3,429) to the United Way Helpline related to food in 2014 (FIGURE 22).

FIGURE 21. ACCESS TO GROCERY STORES, FAST FOOD RESTAURANTS, AND CONVENIENCE STORES, PER 100,000 POPULATION, BY COUNTY, 2013



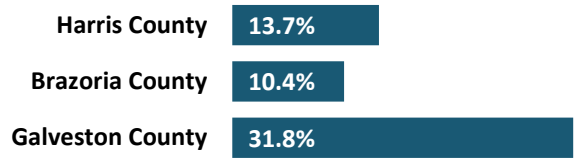
DATA SOURCE: US Census Bureau, County Business Patterns, as cited by Community Commons, 2013; and as city by USDA Food Environment Atlas, 2012
*Convenience store data reflects 2012

FIGURE 22. 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; Data unavailable for Brazoria or Galveston Counties

FIGURE 23. PERCENT LOW INCOME POPULATION LIVING NEAR A FARMER'S MARKET, BY COUNTY, 2015



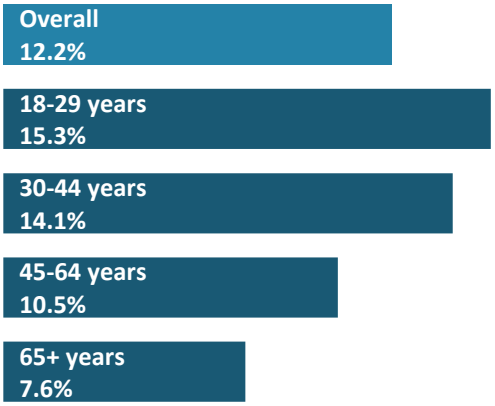
DATA SOURCE: US Department of Agriculture, Agriculture Marketing Service, 2015, as cited by Community Commons

Eating Behaviors

Eating healthy food promotes overall health. Focus group participants and key informant interviewees described healthy eating as a difficult habit to maintain. Limited access to healthy foods, the low cost of fast food, cultural norms around eating, and limited knowledge about nutrition were cited across all informants as being top drivers of unhealthy eating habits. The low cost of and easy access to unhealthy fast food were also cited as a contributor to unhealthy eating habits. Informants cited cultural factors as affecting whether people make healthy food choices: *"Texas is the barbeque capital of the world. Barbeque and pizza are popular and very unhealthy. For 30 years, we have known that smoked meats cause cancer. Other than the recent announcement, you will never hear any kind of person in Texas saying it is unhealthy to eat barbeque."*

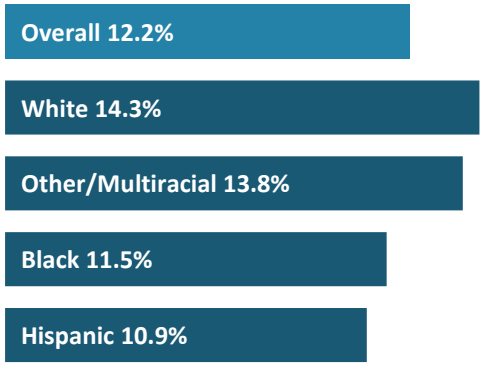
The yearly Behavioral Risk Factor Surveillance Survey (BRFSS) spearheaded by the Centers for Disease Control and Prevention gathers data on people's self-reported behaviors. For many eating behaviors, only Harris County data are available. Only 12.2% of Harris County adults reported that they ate fruits and vegetables five or more times per day, in accordance with the government recommendation (FIGURE 24). Adults who were younger (18-29 years old) had the highest percentage of respondents meeting this recommendation (15.3%). When examining responses by racial or ethnic identification, 14.3% of White adults indicated this eating behavior compared to 11.5% of Black, non-Hispanic respondents and 10.9% of Hispanic respondents (FIGURE 25). Lower income Harris County adults were less likely than residents with higher median household incomes to report consuming five or more fruits and vegetables daily (FIGURE 26).

FIGURE 24. 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

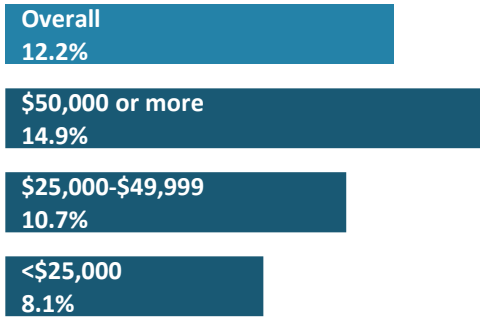
FIGURE 25. PERCENT ADULTS SELF-REPORTED TO HAVE CONSUMED FRUITS AND VEGETABLES AT LEAST FIVE TIMES PER DAY, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

Data on youth were only available for Houston. Youth in grades nine through twelve in Houston were surveyed about their eating habits in 2013. In the survey, 8.9% of high school students in Houston indicated that they did not eat any fruit or drink any fruit juices in the past seven days, while 12.5% reported that they had not eaten any vegetables during this time period (FIGURE 27). Black, non-

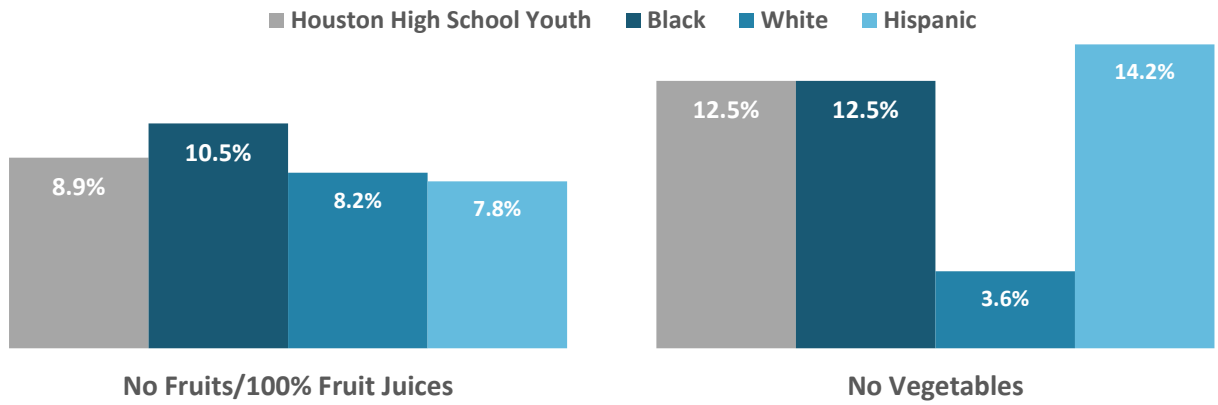
FIGURE 26. PERCENT ADULTS SELF-REPORTED TO HAVE CONSUMED FRUITS AND VEGETABLES AT LEAST FIVE TIMES PER DAY, BY MEDIAN HOUSEHOLD INCOME, HARRIS COUNTY, 2013



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

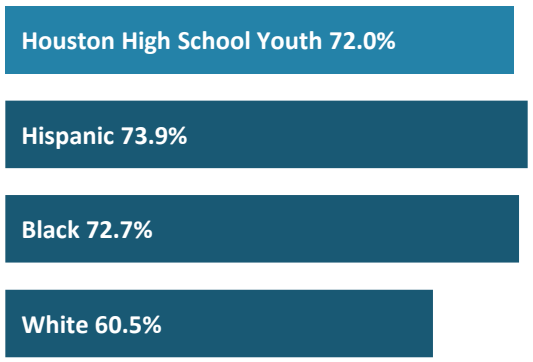
Hispanic students (10.5%) were most likely to indicate that they had not consumed any fruits, while Hispanic students (14.2%) were most likely to report not eating any vegetables. As illustrated in FIGURE 28, non-white students were also more likely to indicate they had not eaten breakfast in the past seven days. Compared to 60.5% of White students, 72.7% of Black, non-Hispanic students and 73.9% of Hispanic students reported they had not eaten breakfast in the past seven days. Black, non-Hispanic students were more likely to report drinking soda two or more times per day in the last seven days (19.5%) than Hispanic (14.7%) and White students (9.0%) (FIGURE 29).

FIGURE 27. PERCENT HOUSTON YOUTH (GRADES 9-12) REPORTED NOT HAVING EATEN FRUITS OR DRUNK 100% FRUIT JUICES AND VEGETABLES IN PAST SEVEN DAYS, BY RACE AND ETHNICITY, 2013



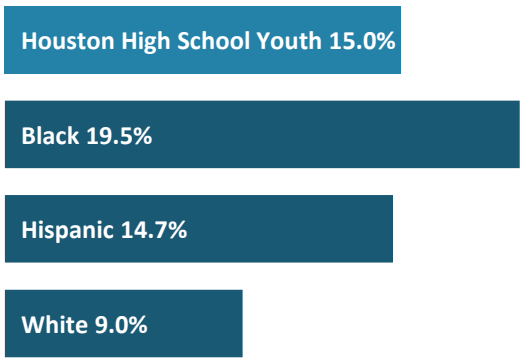
DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

FIGURE 28. 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 29. 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



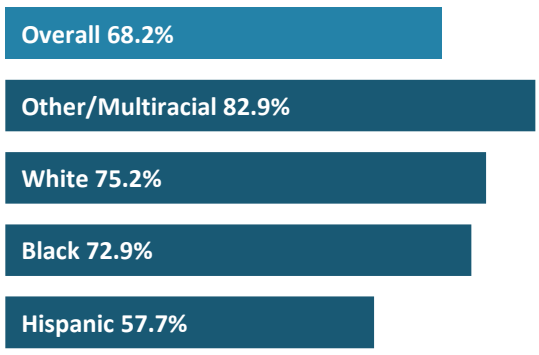
DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

Physical Activity

Another important risk factor for maintaining a healthy weight and reducing one's risk of cardiovascular disease and other chronic diseases is physical activity. Focus group participants and key informants cited time constraints and a limited infrastructure to promote physical activity in public spaces as challenges to engaging in physical activity. One key informant explained, *"Parents are working multiple jobs … time and focus to exercise not there. [It's] more about survival … [People are] just trying to get by in life."* A focus group participant described the barriers to being physically active in their neighborhood: *"The sidewalks are bad. We walk in the street. There's poor street lighting. It's always dark."*

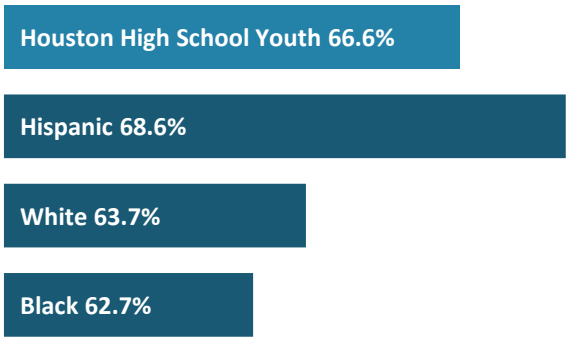
Data on physical activity is only available for Harris County. More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had participated in any type of physical activity in the past month (FIGURE 30). When examining reports by race and ethnicity, Hispanic adults (57.7%) were the least likely to report that they had participated in any physical activity in the past month. In surveys with Houston high school students, two-thirds (66.6%) reported that they had not participated in 60 or more minutes of physical activity for 5 days in the past 7 days, the recommendation for youth physical activity levels (FIGURE 31). Hispanic youth (68.6%) were most likely to report not reaching this level of activity.

FIGURE 30. 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 31. 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, HARRIS COUNTY, 2013



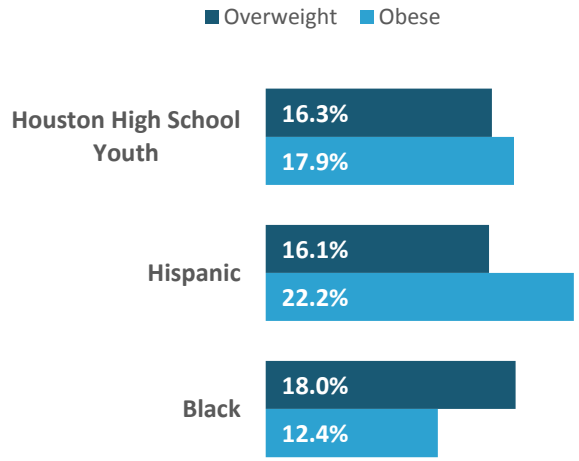
DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

Overweight and Obesity

Obesity is a major risk factor for cardiovascular disease and increases the risk of death due to heart disease, diabetes, and stroke. Each community served by MH Southeast is affected by overweight and obesity. Almost all focus group participants and key informant interviewees described overweight and obesity as a major issue in the community, alongside diabetes and heart disease. Focus group participants and key informants identified obesity as driven by unhealthy eating habits and low levels of physical activity. For example, one key informant interviewee reported, *"Houston has an obesity problem – we tend to spend a lot of time in cars and inside, not a lot outside in green spaces."* Other focus group participants and informants shared concerns about children being at high risk for obesity.

In 2013, of the two counties served by MH Southeast for which data were available, approximately seven in ten adults in Galveston (72.7%) and Harris (69.4%) Counties reported that they were overweight or obese (data not shown; data unavailable for Brazoria County). Combined, approximately one-third of Houston high school students were considered overweight (16.3%) or obese (17.9%) in 2013 (FIGURE 32). Hispanic high school students (22.2%) in Houston were more likely to be considered obese, and Black, non-Hispanic high school students (18.0%) were most likely to be considered overweight (18.0%).

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



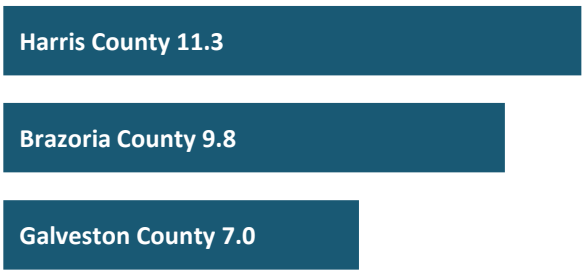
DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013
NOTE: All other races or ethnicities were considered as having insufficient sample sizes for analysis.

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 one in five health care dollars in the United States, a figure which has been rising over the last several years. Diabetes is an issue for some residents in communities served by MH Southeast. The majority of focus group participants and key informants identified diabetes (along with cancer and hypertension) as a top health issue in the region. As one senior focus group participant described, *"Diabetes…it seems to be rampant. Everybody I know is on blood pressure medication or diabetes type 1 or type 2."* Several key informants discussed the unmet needs of diabetes, particularly regarding self-management of diabetes and health care system constraints that contributed to delayed care. One key informant reported, *"We will see patients are coming in for chronic conditions [like diabetes] that is not managed or controlled. Symptoms, like blindness, are then exacerbated."* Several informants discussed diabetes *"running in families"* as though diabetes was an expected outcome: "*We see people who expect to have diabetes because everyone in their family does."* This creates a burden on residents served by MH Southeast.

In 2014, 10.4% ofHarris County adults self-reported to have been diagnosed with diabetes, while 12.4% reported this diagnosis in Galveston County (data not shown; data not available for Brazoria). In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Galveston County had 7.0 admissions per 100,000 population (FIGURE 33).

FIGURE 33. HOSPITAL ADMISSIONS DUE TO UNCONTROLLED DIABETES RATE PER 100,000 POPULATION, BY COUNTY, 2013



DATA SOURCE: Texas Health Care Information Collection, Texas Hospital Inpatient Discharge Public Use Data File, 2013, as cited by Texas Department of State Health Services

Heart Disease, Stroke, and Cardiovascular Risk Factors

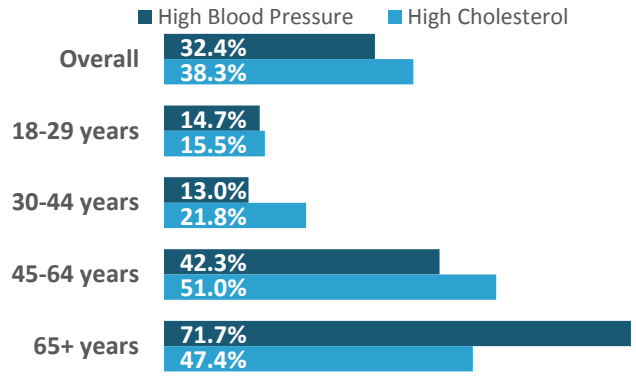
Hypertension (e.g., high blood pressure) is one of the major causes of stroke, and high cholesterol is a major risk factor for heart disease. Both hypertension and cholesterol are preventable conditions. Unhealthy lifestyle practices, such as unhealthy diets and sedentary behaviors, and stress can play major roles in the development of these top two cardiovascular risk factors. Heart disease and stroke are among the top five leading causes of death both nationally and within this region. Focus group participants named hypertension and heart disease as among the top issues affecting their community, especially among seniors. One focus group participant said many diseases affected the community, *"Especially heart disease…everybody has high pressure."* Many senior focus group participants discussed the challenges of managing multiple chronic diseases. One senior observed, *"*The doctor just straight says, *"here's the medication you need to take.' I got 14 different prescriptions."* Some key informants expressed concern that heart disease and stroke occurred more frequently in populations experiencing health disparities. Additionally, informants expressed a need for treatment of hypertension to prevent

more serious cardiovascular events, *"[We need to get] more people in when they have high blood pressure [so] that it can be controlled [to prevent] a stroke."*

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 a larger percentage of adults in Galveston County (8.8%) than Harris County (2.8%) self-reported having been diagnosed with angina or coronary heart disease (data not shown; Brazoria County data not available). A proportion of 4.1% of Galveston County adults and 3.8% of adults in Harris County self-reported having had a stroke, while a greater proportion of adults in Galveston County (6.8%) reported having had a heart attack compared to adults in Harris County (3.6%).

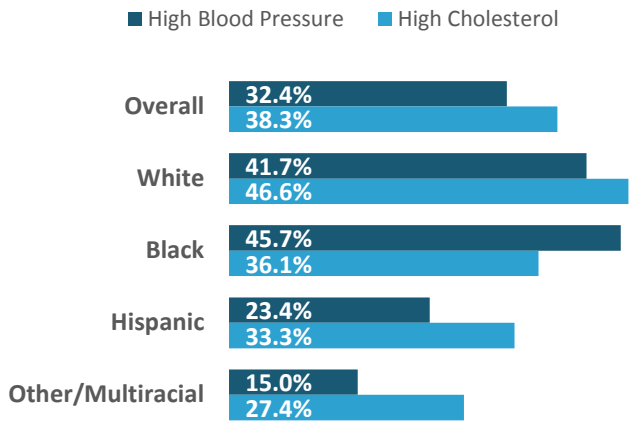
As illustrated in FIGURE 34, over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%). Harris County residents over the age of 65 were disproportionately likely to report having high blood pressure (71.7%) than their younger counterparts. Reports of diagnosed high cholesterol also increased with age. As illustrated in FIGURE 35, White Harris County residents had the highest self-reported prevalence of high cholesterol (46.6%) while Black, non-Hispanic Harris County residents had the highest self-reported prevalence of high blood pressure (45.7%).

FIGURE 34. 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, 2013

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



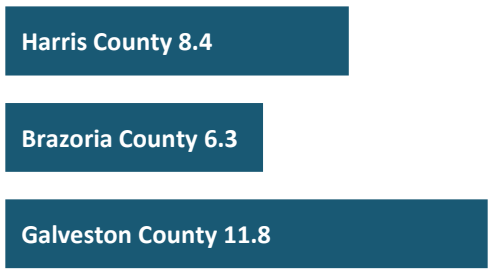
DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2013

Asthma

A few key informant interviewees described air quality linked with refineries and traffic as an issue of concern for the community. One key informant explained, *"[There are] a lot of refineries in the city [that] aggravate asthma triggers. Access to inhalers is important [and] not all school-based clinics can provide [inhalers]. [This is a] growing issue."* Some key informants noted that lower-income populations were most acutely affected by air quality concerns, *"There are big poverty areas in Houston. Low-income minority populations are concentrated. Food deserts and crime and poor air quality and such are concentrated in poor areas."*

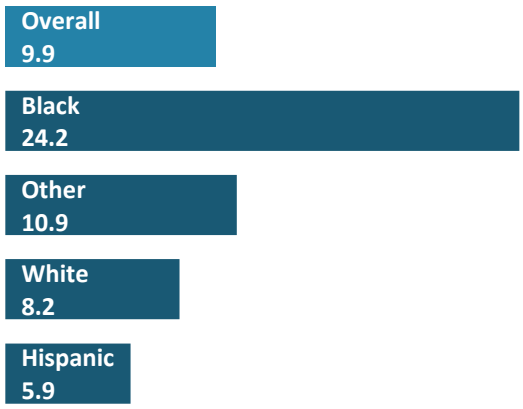
In 2013, 12.6% of Texas adults self-reported having asthma at one point in their lifetime according to the Texas Behavioral Risk Factor Surveillance System (data not shown). Harris County adult residents had the highest self-reported prevalence of current asthma (5.3%) and Galveston County adult residents self-reported a lower prevalence of asthma (3.2%) (data not shown; Brazoria County data not available). In 2012, adult hospital discharges for asthma were the highest in Galveston County (11.8 per 10,000 population) and lowest in Brazoria County (6.3 per 100,000 population) (FIGURE 36). As shown in FIGURE 37, among children aged 17 years and younger, the rate of asthma-related hospital discharges for Black, non-Hispanic children was three times the rate for White children (24.2 versus 8.2 per 10,000 population).

FIGURE 36. AGE-ADJUSTED ASTHMA HOSPITAL DISCHARGE RATES PER 10,000 POPULATION, BY 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 Hospital Discharge Rates by County and by Demographics for Selected Counties, Texas, 2005-2012
NOTE: Data do not include HIV and drug/alcohol use patients

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

> ***"We are seeing more and more cancers."***
>
> **Key informant interviewee**

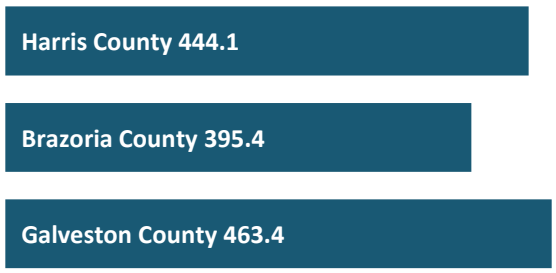
Cancer

Cancer is among the top two leading causes of death in the region. (In some cases, cancer is the leading cause of death, while heart disease is number one in others.) This regional trend is similar to what is seen nationally. Focus group participants and key informant interviewees described cancer as a health condition seen in their community. Many informants expressed concern that residents have limited awareness of or access to cancer screening and detection resources, as well as cancer care. One focus group participant reported: *"Some people don't know they have an illness [like cancer], " which they attributed to a lack of understanding about cancer screening.*

Galveston (463.4 per 100,000 population) and Harris (444.1 per 100,000 population) Counties had a higher cancer incidence rate than Brazoria County (395.4 per 100,000 population) (FIGURE 38). Galveston (195.3 per 100,000 population) and Brazoria Counties (171.9 per 100,000 population) experienced a slightly higher cancer mortality rate than Harris County (163.4 per 100,000 population) (FIGURE 39).

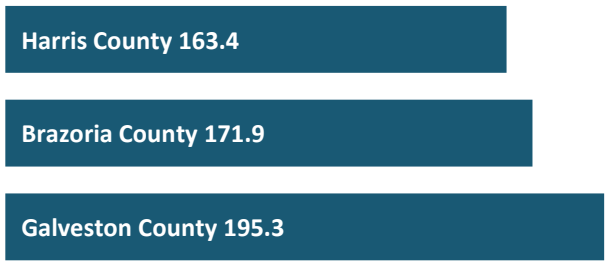
Self-reported cancer screening data were only available for Harris and Galveston Counties. In a 2014 Behavioral Risk Factor Surveillance survey, in Harris (81.6%) and Galveston (78.1%) Counties, approximately eight in ten women 40 years of age or older indicated they had completed a mammogram in the past two years (FIGURE 40); Brazoria County data not available). With respect to cervical cancer screening, women's reports of having completed a pap test in the past three years ranged from 70.0% of women in Harris County to 77.0% of women in Galveston County. Compared to Harris County (64.8%), a larger proportion of adults in Galveston County (73.6%) self-reported having a colonoscopy or sigmoidoscopy.

FIGURE 38. AGE-ADJUSTED INVASIVE CANCER INCIDENCE RATE PER 100,000 POPULATION, BY COUNTY, 2008-2012



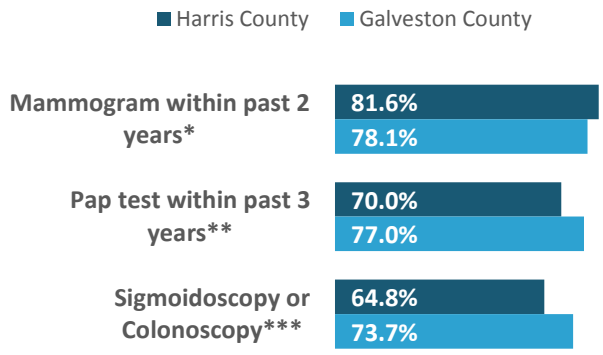
DATA SOURCE: Texas Cancer Registry, 2008-2012

FIGURE 39. AGE-ADJUSTED CANCER MORTALITY RATE PER 100,000 POPULATION, BY COUNTY, 2008-2012



DATA SOURCE: Texas Cancer Registry, 2008-2012

FIGURE 40. PERCENT ADULTS SELF-REPORTED CANCER SCREENING, HARRIS COUNTY, 2014



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

Mental Health

> ***"Our schools and counselors really do see a very significant increase in behavioral health concerns."***
>
> **Key informant interviewee**

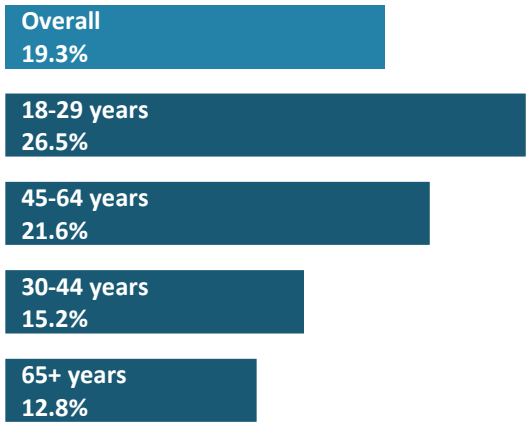
Focus group participants and key informants identified mental health as a major unmet need in the community served by MH Southeast. While some focus group participants and informants cited mental health as an issue that touches multiple segments of the population, others described mental health concerns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

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

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 compared to adults in Galveston County (14.9%), a larger proportion of adults in Harris County (19.3%) self-reported having five or more poor mental health days (data not shown). In 2014 19.3% of adults in Harris County self-reported as having five or more poor mental health days (FIGURE 41). Self-report of having had

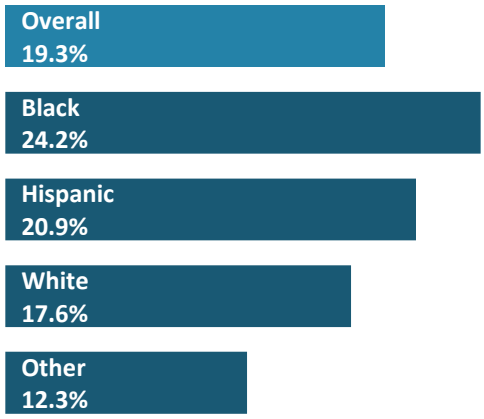
five or more days of poor mental health was highest among residents aged 18 to 29 (26.5%) and Black, non-Hispanic residents (24.2%) in Harris County (FIGURE 42).

FIGURE 41. 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
NOTE: Data available only for Harris County

FIGURE 42. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014

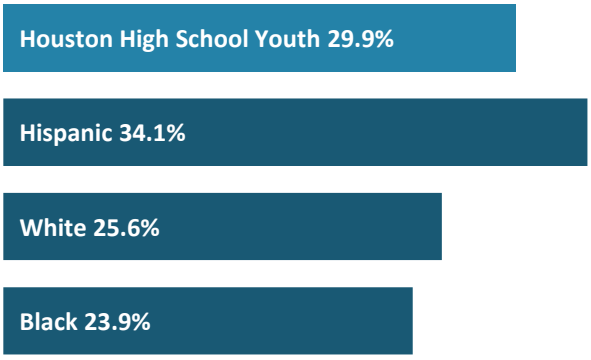


DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

Focus group participants and key informants reported that youth were at high risk for mental health problems, and the response to their needs was inadequate. One key informant described an increase mental health issues amongst children that may be linked with birth outcomes and home environments: *"[We see] more predominance of children with aggressive or hostile behavior … [these are] issues due to pre-term births and/or substance abuse in the home."* Another informant pointed to teen suicide as a top issue of concern in the community. *"We have high teen suicides. It's anecdotal … but part of it is because we're in affluent communities. If you don't fit in, people will know that. If you live a different lifestyle (if you're poor, if you're gay, etc.), people will know and will make sure you fit yourself in."*

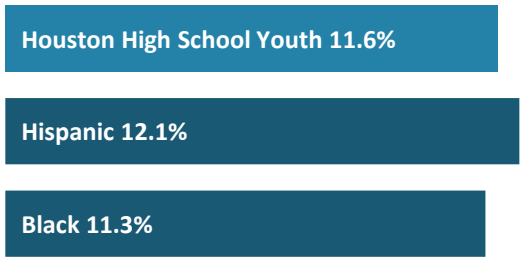
Houston Hispanic youth reported higher mental health needs than youth of other races or ethnicities. Among youth in Houston in 2013, one-third of Hispanic (34.1%) high school students self-reported feeling sad or hopeless for two or more weeks in the past year (FIGURE 43). Approximately one in ten high school students (11.6%) self-reported that they attempted suicide at least once in the past year, with 12.1% of Hispanic and 11.3% of Black, non-Hispanic students reporting attempted suicide in the past year (FIGURE 44).

FIGURE 43. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED TO HAVE FELT SAD OR HOPELESS FOR TWO OR MORE WEEKS IN PAST 12 MONTHS IN HOUSTON, 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 data for other races or ethnicities.

FIGURE 44. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED ATTEMPTED SUICIDE ONE OR MORE TIMES IN PAST YEAR IN HOUSTON, RACE AND ETHNICITY, 2013



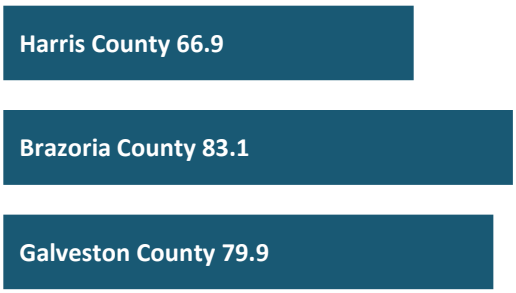
DATA SOURCE: Centers for Disease Control and Prevention, High School Youth Risk Behavior Survey, Houston, TX, 2013

Substance Use and Abuse

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

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 self-reported binge drinking in the past month ranged from 13.7% among Harris County adults to 15.2% among Galveston County adults (data not shown; data not available for Brazoria County). More than one in ten adults in Harris (13.6%) and Galveston (12.6%) Counties reported being current smokers (data not shown; data not available for Brazoria County). A proportion of 1.9% of Harris County adults and 3.3% of Galveston County adults reported that within the past month they drove after consuming alcohol (data not shown). Over the 2010-2014 period, the rate of non-fatal motor vehicle crashes attributed to driving under the influence (DUI) ranged from 66.9 per 100,000 population in Harris County to 83.1 per 100,000 population in Brazoria County (FIGURE 45).

FIGURE 45. NON-FATAL DRINKING UNDER THE INFLUENCE (DUI) MOTOR VEHICLE CRASH RATE PER 100,000 POPULATION, BY COUNTY, 2010-2014



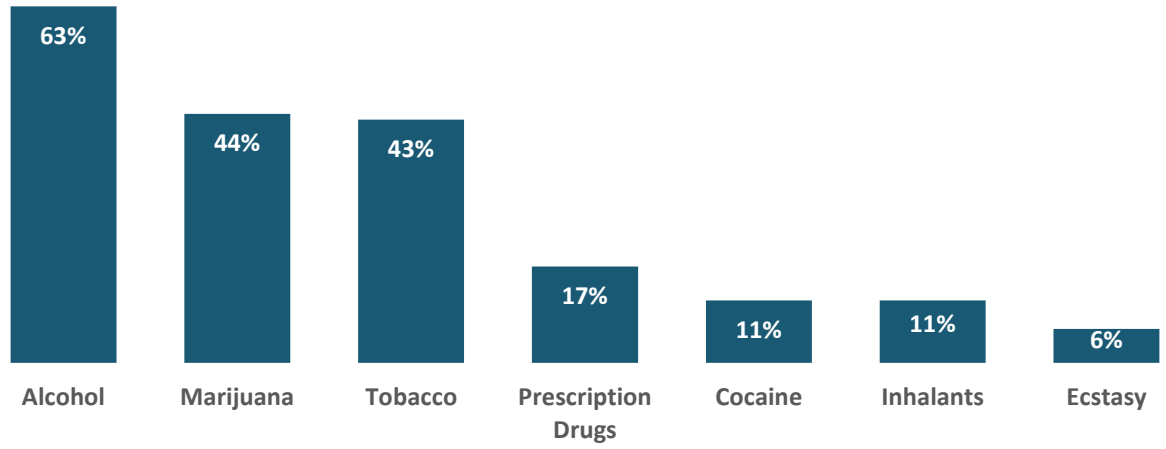
DATA SOURCE: Texas Department of Transportation, 2010-2014, as cited in Prevention Resource Center 6, Regional Needs Assessment, 2015

As reported in the Texas Youth Risk Behavior Survey, in 2013 Houston high school students self-reported using alcohol (31%), marijuana (23%), or tobacco (11%) in the past month (FIGURE 46; data only available for Houston students). Nearly two-thirds (63%) of Houston high school students self-reported lifetime substance use of alcohol, followed by marijuana (44%), and tobacco (43%) (FIGURE 47). Compared to other racial or ethnic groups, Hispanic (46.9%) Houston high school students had a higher reported prevalence of ever smoking, while a higher proportion of White (21.5%) Houston high school students reported ever using prescription drugs (FIGURE 48).

FIGURE 46. PERCENT HOUSTON YOUTH (GRADES 9-12) SELF-REPORTED CURRENT SUBSTANCE USE IN PAST 30 DAYS, 2013

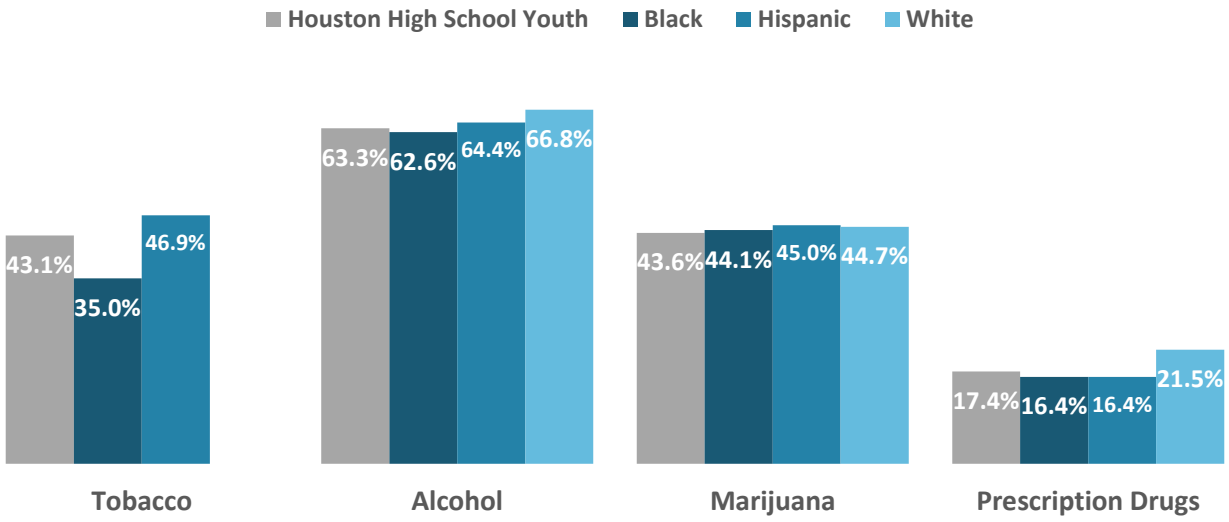
DATA SOURCE: Texas Youth Risk Behavior Survey, 2013, as cited in Prevention Resource Center, Regional Needs Assessment, 2015

FIGURE 47. 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 48. PERCENT YOUTH (GRADES 9-12) SELF-REPORTED SUBSTANCE USE IN HOUSTON, BY RACE AND ETHNICITY, 2013



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

Communicable Diseases

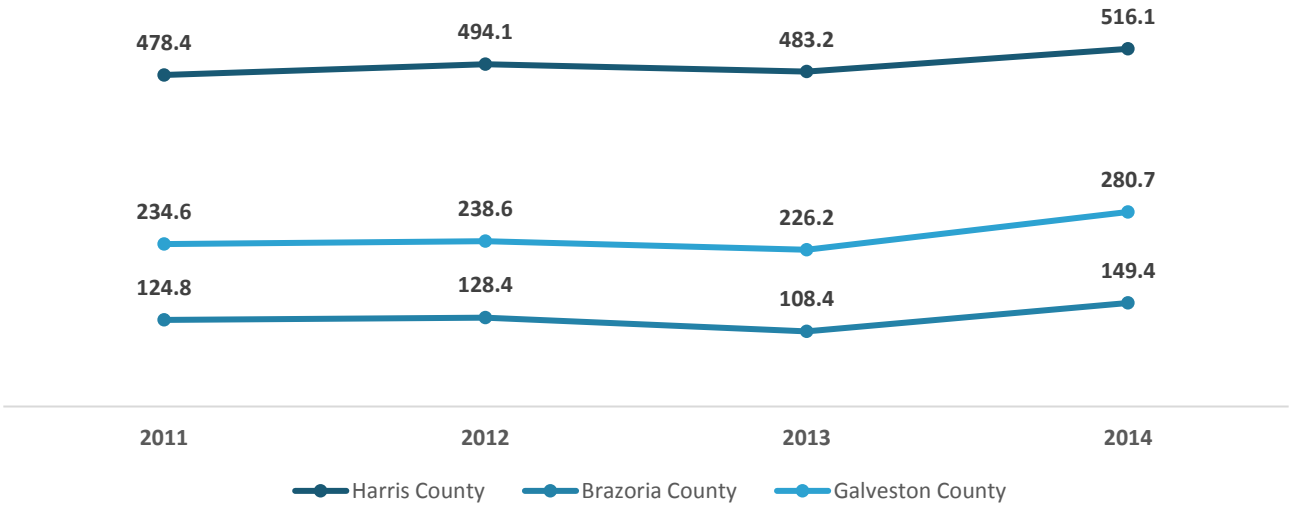
Communicable diseases are diseases that can be transferred from person to person. These conditions are not as prevalent as chronic diseases in the region, but they do disproportionately affect vulnerable population groups.

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

HIV

Across the three counties served by MH Southeast, Harris County experienced the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county in 2014, an increase from 478.4 per 100,000 population in 2011 (FIGURE 49). In 2014, Brazoria County had the lowest HIV rate (149.4 per 100,000 population), followed by Galveston County (280.7 per 100,000 population).

FIGURE 49. RESIDENTS LIVING WITH HIV RATE PER 100,000 POPULATION, BY COUNTY, 2011-2014

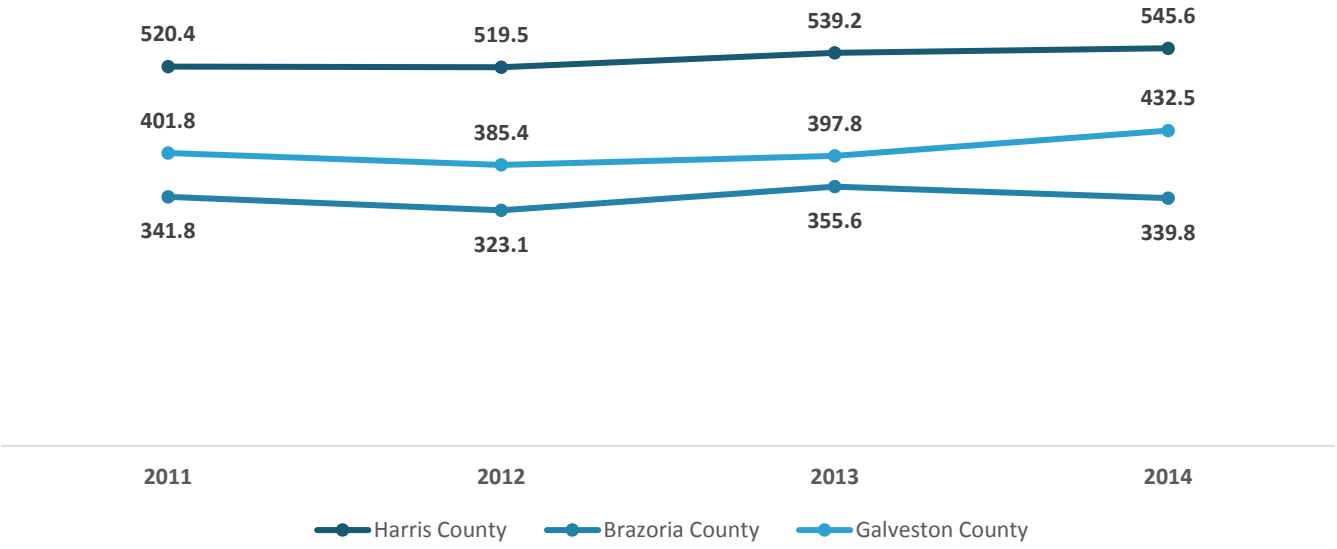


DATA SOURCE: Texas Department of State Health Services, Texas HIV Surveillance Report, 2011, 2012, 2013, and 2014

Other Sexually-Transmitted Diseases

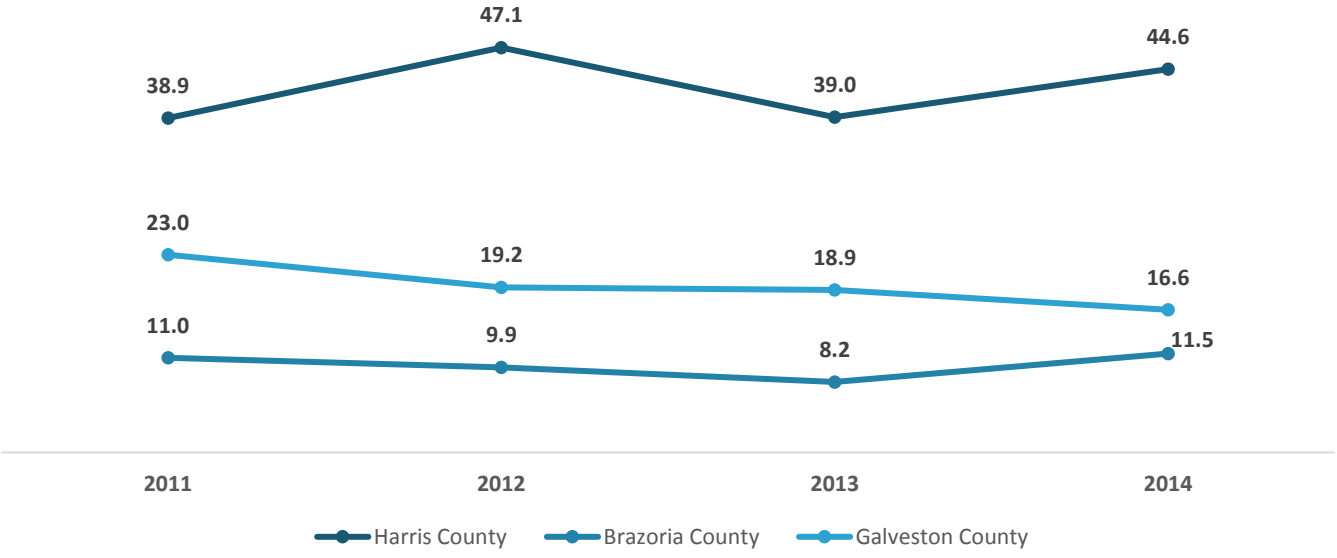
Trends in rates of chlamydia, gonorrhea, and syphilis varied by county served by MH Southeast. From 2011 to 2014, chlamydia, syphilis, and gonorrhea rates increased in Harris County (FIGURE 50, FIGURE 51, and FIGURE 52). Galveston County experienced an increase in the rate of chlamydia and a decline in the rate of syphilis and gonorrhea. Over this same period, in Brazoria County the rates of chlamydia decreased, while rates of syphilis remained stable, and rates of gonorrhea increased. Across all three counties served by MH Southeast, rates of chlamydia, gonorrhea, and syphilis were highest in Harris County.

FIGURE 50. CHLAMYDIA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014



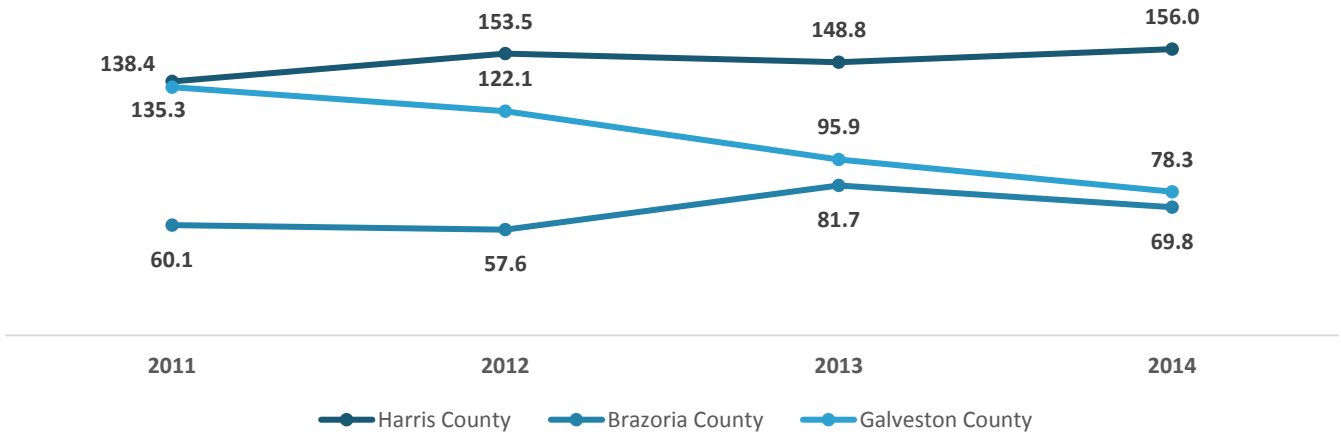
DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

FIGURE 51. 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 52. GONORRHEA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014

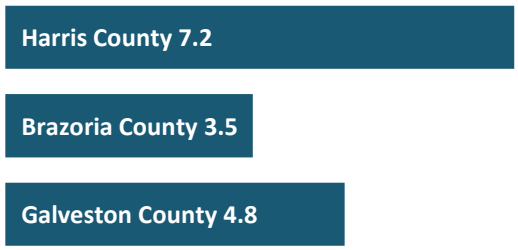


DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

Tuberculosis

Across the three counties served by MH Southeast, Harris County had the highest rate of tuberculosis, with 7.2 cases per 100,000 population, a rate that was double that in Brazoria County (3.5 per 100,000 population) (FIGURE 53).

FIGURE 53. TUBERCULOSIS CASE RATE PER 100,000 POPULATION, BY COUNTY, 2014

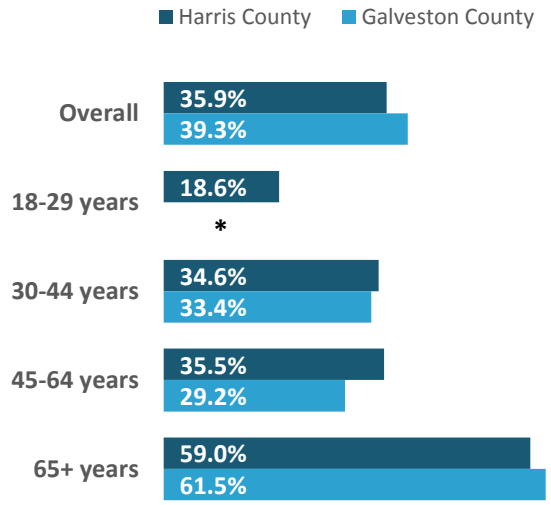


DATA SOURCE: Texas Department of State Health Services, TB-HIV-STD and Viral Hepatitis Unit, TB Counts and Rates by, 2014

Influenza

Self-reported data regarding influenza vaccination completion were only available for Harris and Galveston Counties. According to the Texas Behavioral Risk Factor Surveillance System, in 2014 more than one-third of Harris County (35.9%) adults and four in ten adults in Galveston County (39.3%) reported having obtained a seasonal flu shot or vaccine via nose spray (FIGURE 54; data not available for Brazoria County). In Harris (59.0%) and Galveston (61.5%) Counties, residents aged 65 years or older were more likely to have received a flu shot than younger age groups.

FIGURE 54. 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
NOTE: Asterisk (*) denotes unreliable rate due to small numbers

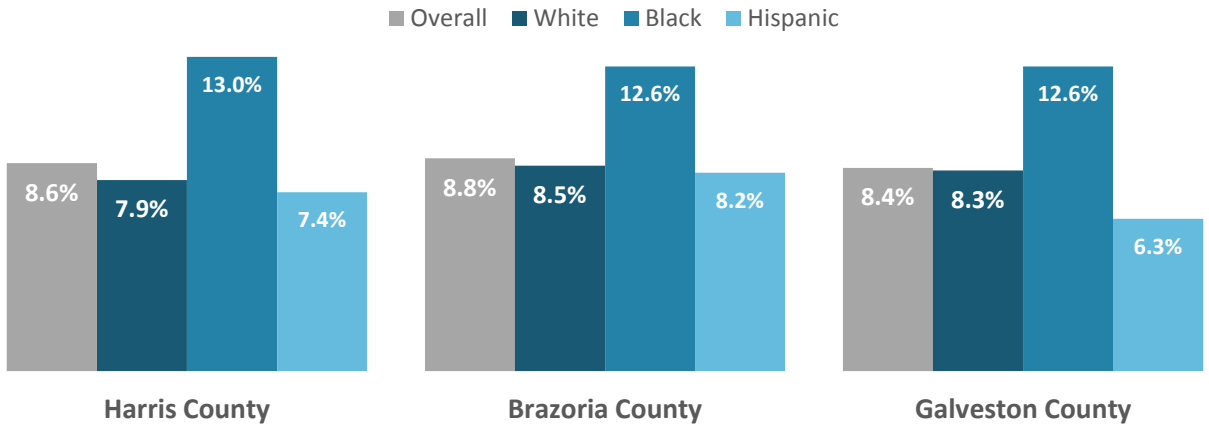
Reproductive and Maternal Health

The promotion of reproductive and maternal health provides a strong foundation for infants and children to have a more positive health trajectory across their lifespans. This section presents information about birth outcomes and teen pregnancy in the communities served by MH Southeast.

Birth Outcomes

In 2013, approximately one in ten infants born in Harris (11.8%), Brazoria (11.7%), and Galveston (13.4%) Counties was premature in 2013 (data not shown). Similarly, across the three counties served by MH Southeast, nearly one in ten infants was born low birthweight, although this pattern varied by race and ethnicity. Infants born to Black, non-Hispanic mothers were more likely to be low birthweight than infants born to women of other races or ethnicities. In 2013, the prevalence of low birthweight among infants born to Black, non-Hispanic women was similar across Harris (13.0%), Brazoria (12.6%), and Galveston (12.6%) Counties (FIGURE 55).

FIGURE 55. PERCENT LOW BIRTH WEIGHT INFANTS, OVERALL AND BY RACE AND ETHNICITY, BY COUNTY, 2013

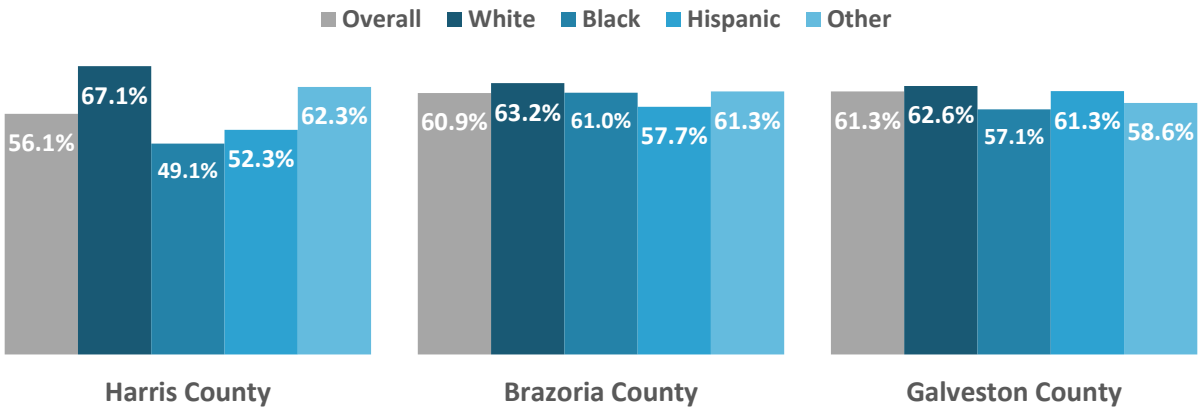


DATA SOURCE: Texas Department of State Health Services, Texas Vital Statistics Annual Report, 2013
NOTE: White includes Other and Unknown race and ethnicity; Low birth weight is defined as under 2,500 grams

Prenatal Care

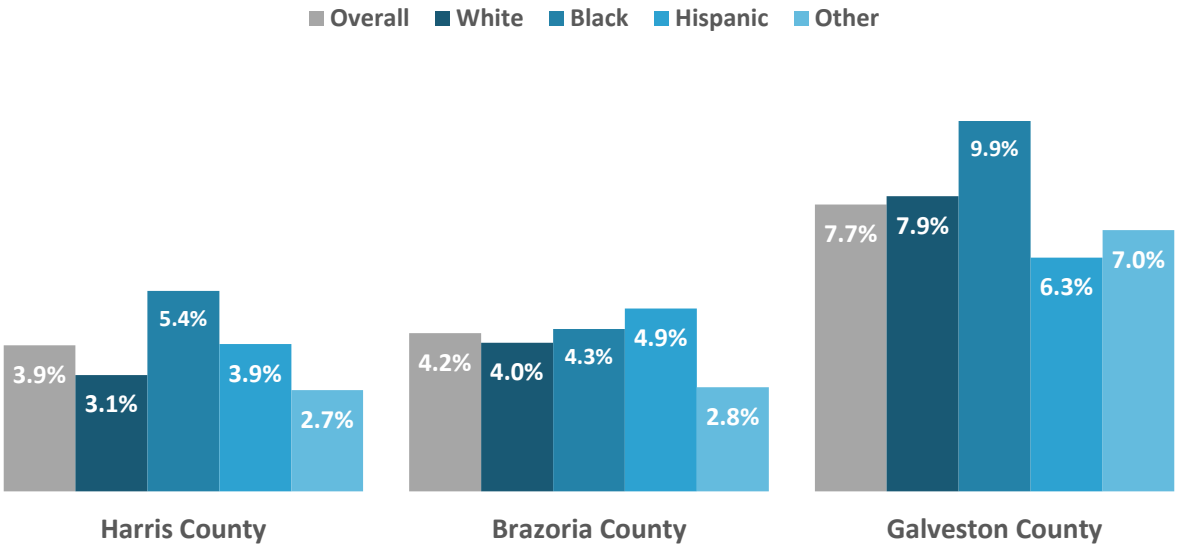
According to the Texas Department of State Health Services, 56.1% of Harris County live births, 60.9% of Brazoria County live births, and 61.3% of Galveston live births occurred to mothers who received prenatal care in their first trimester (FIGURE 56). Rates of first trimester prenatal care in all counties were highest for White, non-Hispanic mothers. Rates of first trimester prenatal care in Harris and Galveston Counties were lowest for Black, non-Hispanic mothers (49.1% and 57.1%, respectively); Hispanic mothers in Brazoria County had the lowest rate of first trimester prenatal care (57.7%). Rates of receiving no prenatal care were 3.9%, 4.2%, and 7.7% for Harris, Brazoria, and Galveston County mothers, respectively (FIGURE 57). Rates of no prenatal care in Harris and Galveston Counties were highest for Black, non-Hispanic mothers (5.4% and 9.9%, respectively); Hispanic mothers in Brazoria County had the highest rate of receiving no prenatal care (4.9%).

FIGURE 56. 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 57. PERCENT BIRTHS WITH NO PRENATAL CARE IN ANY TRIMESTER, BY RACE AND ETHNICITY OF MOTHER, 2013

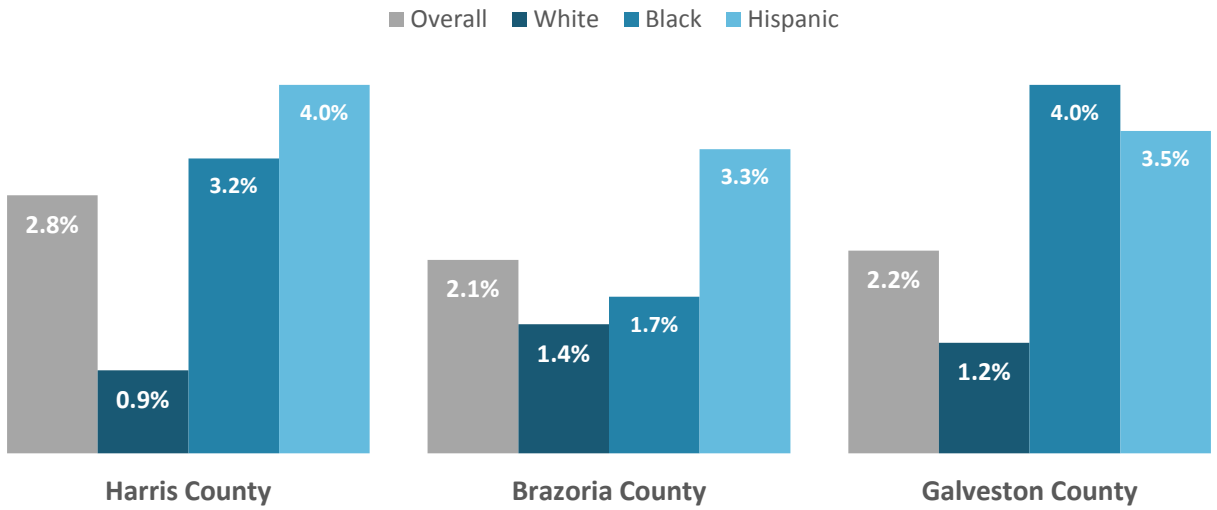


DATA SOURCE: Texas Certificate of Live Birth, as cited by Texas Department of State Health Services, Center for Health Statistics, Texas Health Data, Birth Outcomes, 2013

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). Among the three counties served by MH Southeast, Harris County had the highest prevalence of teen births (2.8%), compared to Brazoria (2.1%) and Galveston (2.2%) Counties (FIGURE 58). The prevalence of teen births varied by race and ethnicity. The proportion of births to Black, non-Hispanic teen mothers was lowest in Brazoria County (1.7%) and highest in Galveston County (4.0%). The prevalence of births to Hispanic teen mothers ranged from 3.3% in Brazoria County to 4.0% in Harris County.

FIGURE 58. PERCENT BIRTHS TO TEENAGED MOTHERS AGE 17 YEARS OLD AND UNDER, BY COUNTY, RACE AND ETHNICITY, 2013

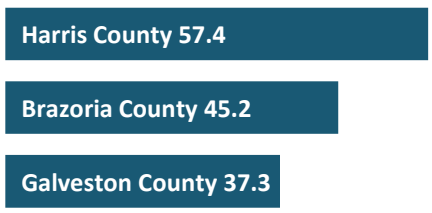


DATA SOURCE: Texas Department of State Health Services, Texas Vital Statistics Annual Report, 2013
NOTE: White includes Other and Unknown race and ethnicity

Oral Health

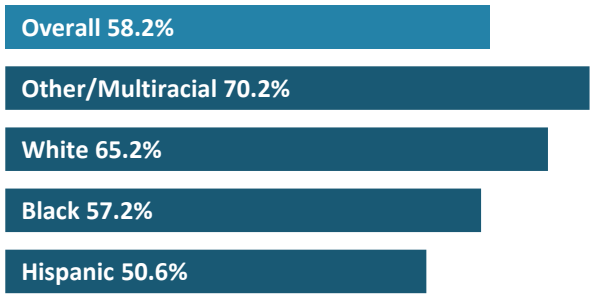
Oral health is closely linked with overall well-being and physical health. In addition to tooth decay and gum disease, poor oral hygiene has been linked to premature birth, cardiovascular disease, and endocarditits. Oral bacteria and inflammation can also lead to infection in persons with diabetes and HIV/AIDS. Focus group participants and key informants cited limited access to dental care as a concern. As one key informant representing the educational system explained, *"Dental care [is a] luxury. We partner with [the] County, but don't make a dent in hitting the needs out there. [Dental care is] more of an issue with children – [we see a lot of] dental caries."* Across the three counties served by MH Southeast, Harris County (57.4 per 100,000 population) had the highest number of dentists, followed by Brazoria County (45.2 per 100,000 population). Galveston County (37.3 per 100,000 population) had the lowest number of dentists (FIGURE 59). According to the Texas Behavioral Risk Factor Surveillance System, in 2014 58.2% of adults in Harris County self-reported having visited a dentist or dental clinic within the past year for any reason compared to 62.9% of Galveston County adults (data not shown; data unavailable for Brazoria County). In Harris County, adults who identified as multiracial or another racial or ethnic category (70.2%) were more likely to report having visited a dentist or dental clinic in the past year, followed by White adults (65.2%), and Black, non-Hispanic adults (57.2%) (FIGURE 60). Hispanic adults in Harris County reported the lowest prevalence of annual dental visitation (50.6%) compared to adults of other races or ethnicities. Adults with higher incomes were more likely to have received dental care in the past year (FIGURE 61).

FIGURE 59. NUMBER OF DENTISTS PER 100,000 POPULATION, BY COUNTY, 2014



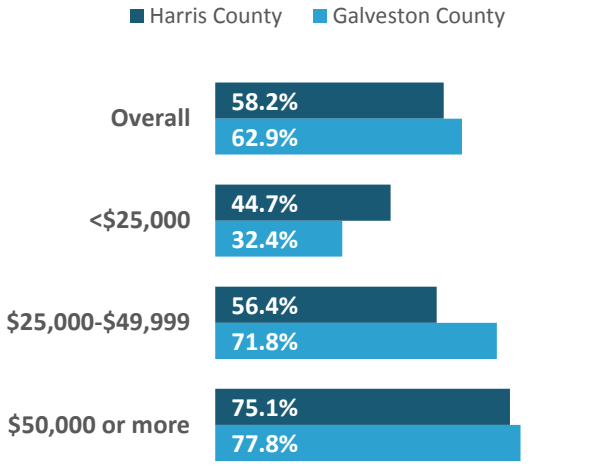
DATA SOURCE: Texas Medical Board, as cited by Texas Center for Health Statistics, 2014

FIGURE 60. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

FIGURE 61. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY INCOME AND COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014

HEALTH CARE ACCESS AND UTILIZATION

Health Insurance

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

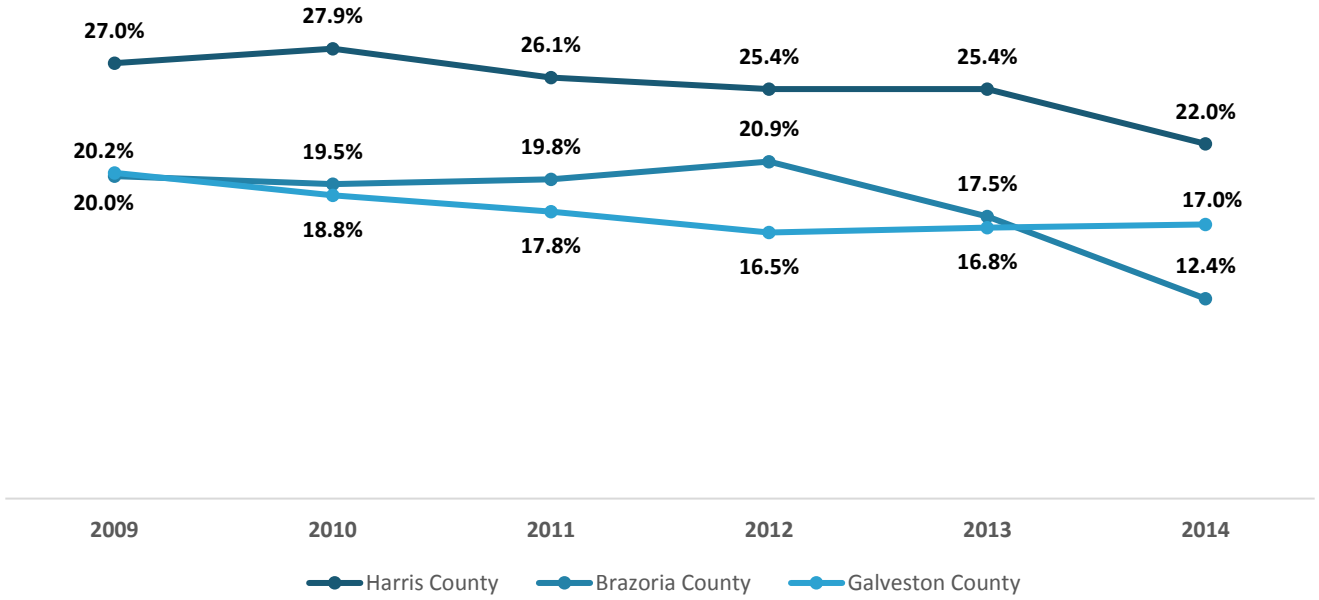
Despite health insurance expansions under the Affordable Care Act (ACA), the number of uninsured in the region was reported to be very high and of great concern to providers, community leaders, and residents. One reason for the high prevalence of uninsured, according to informants, is that Texas has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

> ***"If the doctor prescribes a prescription and your insurance doesn't cover it. You go back and the doctor says 'you've got to get this.' It costs $400. How does any senior pay for that?"***
>
> **Focus group participant**

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

Uninsurance rates decreased across the three counties following passage of the Affordable Care Act in 2010 (FIGURE 62). Harris County had higher rates of uninsurance than Galveston or Brazoria Counties during the 2009-2014 period. In 2014, 22.0% of the total population in Harris County was uninsured compared to 12.4% in Brazoria County and 17.0% in Galveston County.

FIGURE 62. PERCENT TOTAL POPULATION UNINSURED, BY COUNTY, 2009-2014

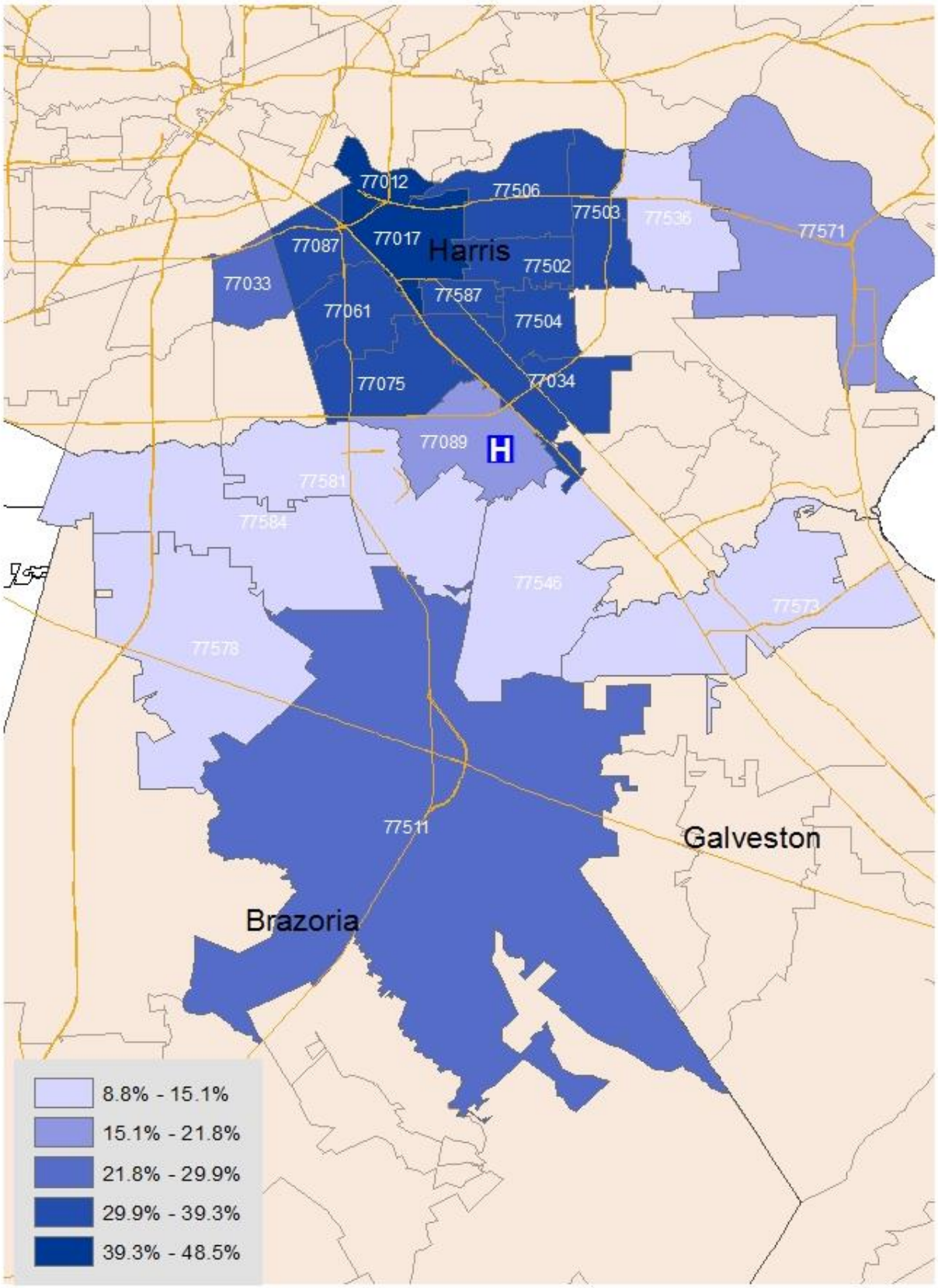


DATA SOURCE: U.S. Census Bureau, American Community Survey 1-Year Estimates, 2009-2014

Rates of uninsurance varied by zip code across the communities served by MH Southeast. In 2013, the zip codes in Harris County around the MH Southeast facility had the highest rates of uninsurance for the total population (FIGURE 63). Zip codes with the highest rates of uninsured were 77012 (48.5%), 77017 (41.5%) and 77506 (39.3%). Among individuals aged 18 and younger, uninsurance rates reported in 2013 were lower than the overall population. Zip codes with the highest rates of uninsured children were 77017 (28.2%), 77503 (25%), and 77504 (22.9%) (FIGURE 64).

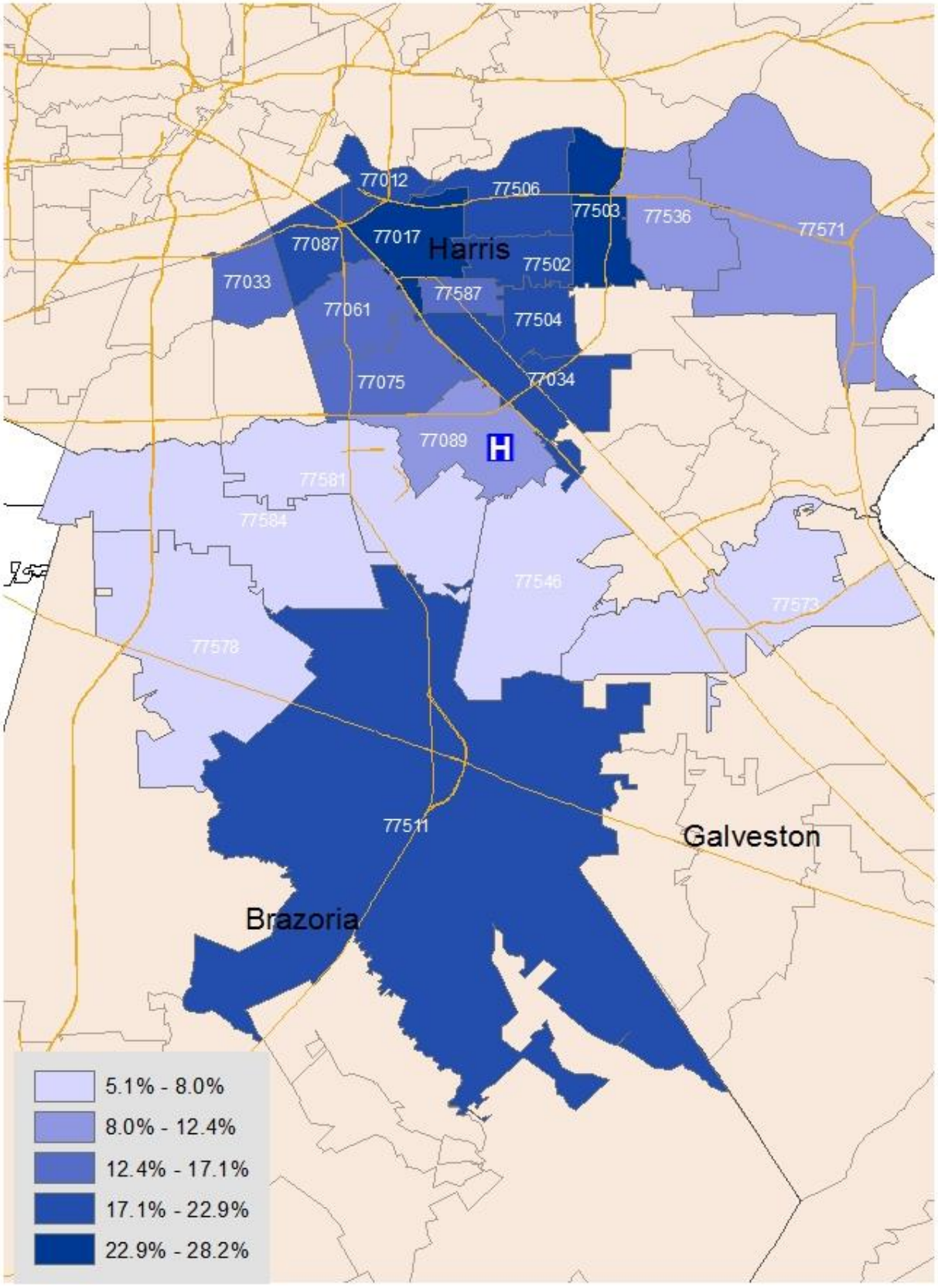
Among the zip codes served by MH Southeast, 119,743 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77506 in Pasadena (10,017 enrollees) (FIGURE 65). In Brazoria County, the zip code with the most Medicaid enrollees was 77511 in Alvin (6,800 enrollees). In Galveston County, the zip code with the most Medicaid enrollees was 77573 in League City (4,133 enrollees).

FIGURE 63. PERCENT TOTAL POPULATION UNINSURED, BY ZIP CODE, 2013



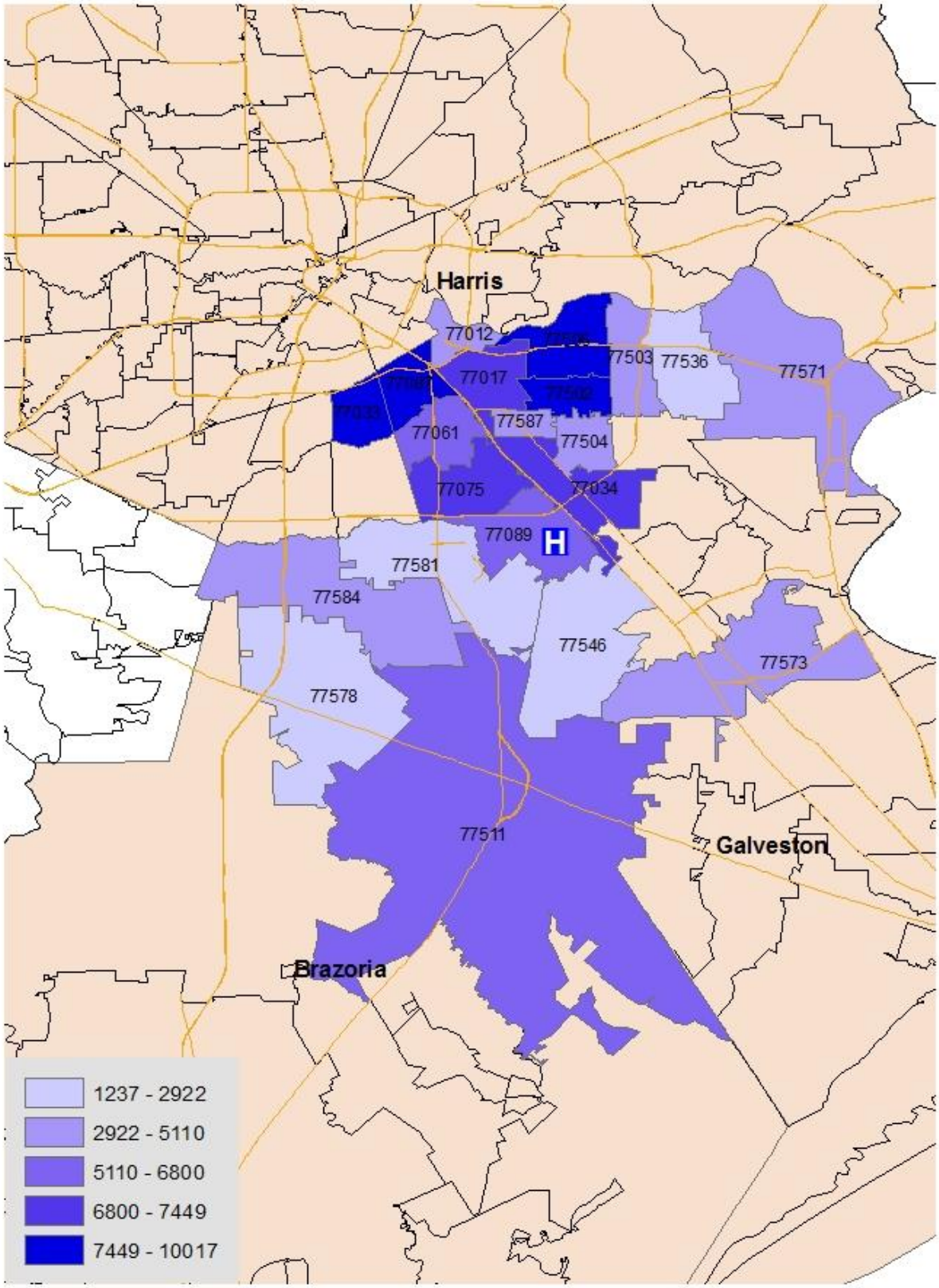
DATA SOURCE: U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

FIGURE 64. PERCENT UNDER 18 YEARS OLD POPULATION UNINSURED, BY ZIP CODE, 2013



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

FIGURE 65. NUMBER ENROLLED IN MEDICAID, BY ZIP CODE, FISCAL YEAR 2015



DATA SOURCE: Texas Health and Human Services Commission System Forecasting, March 2016
NOTE: Enrollment by zip code does not equal total enrollment due to lack of zip code data for some clients

Health Care Access and Utilization

When asked about access to health care services, respondents acknowledged that while the region has many medical services, barriers to accessing needed medical care exist and services are not available equally to everyone. Access to care was described as a challenge particularly in some areas served by MH Southeast where economic challenges were greater and there was a higher proportion of low-income and uninsured patients. Several key informants explained that the 5-year Texas Section 1115 Medicaid demonstration waiver had been particularly important in reaching underserved populations in the region, especially since Texas has not adopted Medicaid expansion. However, residents still reported barriers to accessing health care including availability of providers and appointments, cost, transportation and for some, language, and cultural barriers.

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

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

> ***"The emergency room will be the primary access point for those who cannot afford it."***
>
> **Key informant interviewee**

Among those residents needing assistance to obtain health and social services, focus group participants reported challenges in meeting administrative requirements of existing programs as well as the lack of availability of assistance programs in some geographic areas or to populations who did not have health insurance coverage. One focus group participant residing in a low-income area reported that, *"…there are a lot of places that say they help people, but it's a lot of paperwork. We need more assistance. Or you go there, and they say they have no funding."*

According to focus group participants and key informants, lack of or limited transportation also created barriers to accessing health care, especially for low-income and senior residents, and residents living far from the Medical Center area who needed specialty care. Some focus group participants reported that while there were many medical facilities in the Greater Houston region, they were often not located in communities that were accessible to residents with limited transportation or no public transit While some transportation services were provided for seniors and persons living with a disability, focus group participants and key informants described these services as

unreliable at times and often requiring that appointments be made a week or two in advance. As a result, those without cars faced substantial challenges to accessing care. As one focus group participant explained, *"I have issues with transportation. I have three sets of doctors to see. I have trouble getting there and back."*

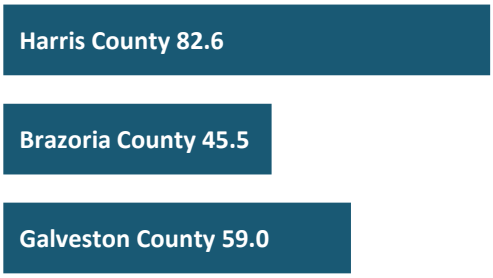
In addition to challenges of accessing health insurance and navigating a complex health care system, key informants and focus group participants reported that linguistic and cultural barriers between racial and ethnic minorities and health care systems posed a unique challenge in accessing health care.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

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

Access to Primary Care

The number of primary care physicians (including general practice, family practice, OB-GYN, pediatrics, and internal medicine) per 100,000 population varied by county. According to the Texas Medical Board, the number of primary care physicians serving Harris County in 2014 was 82.6 per 100,000 population compared to 45.5 physicians per 100,000 population in Brazoria County and 59.0 physicians per 100,000 population in Galveston County (FIGURE 66). As reported in the Texas Behavioral Risk Factor Surveillance System, nearly four in ten (38.2%) adults in Harris County and one in four (23.4%) adults in Galveston County reported that they did not have a doctor or health care provider (data not shown). (Data is unavailable for Brazoria County.)

FIGURE 66. NUMBER OF PRIMARY CARE PHYSICIANS PER 100,000 POPULATION, BY COUNTY, 2014



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

According to the Texas Medical Association's 2014 physician survey, the percent of Texas physicians who accept all new Medicaid patients decreased from 42% in 2010 to 37% in 2014. In the Houston-The Woodlands-Sugar Land MSA 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 Brazoria Galveston Counties due to low survey response rates.)

Emergency and Inpatient Care for Primary Care Treatable Conditions

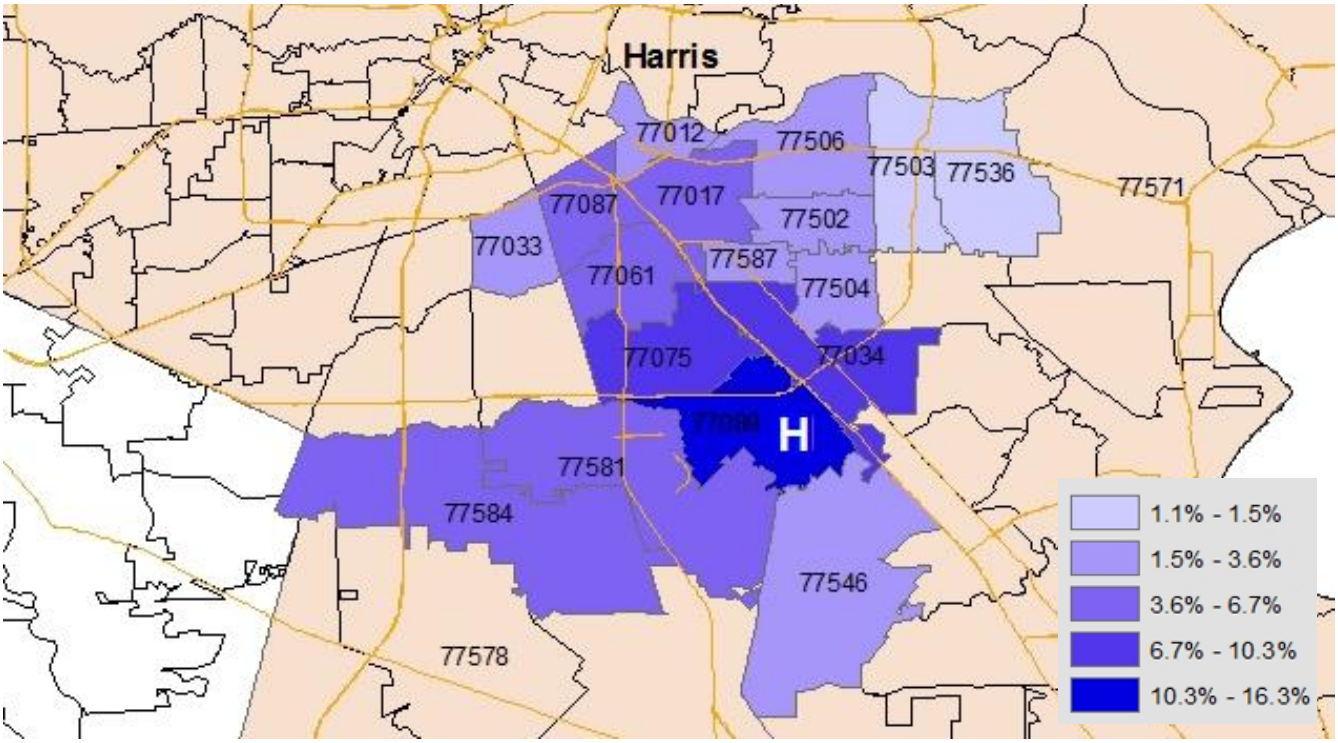
People who are poor, uninsured or covered by Medicaid, certain racial/ethnic minorities and immigrants, and individuals with limited education, literacy or English language skills are all less likely to have a usual source of care (USOC) provider other than a hospital emergency department (ED). In 2013,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

Of MH Southeast's 51,639 ED visits in 2013, 52.3% were from patients who were uninsured or on Medicaid, and 34.8% were classified as non-emergent or with primary care treatable conditions. Thirteen zip codes in the MH Southeast's CHNA-

defined community were among the top 20 zip codes for the highest number of primary care treatable ED visits at the MH Southeast in 2013 (FIGURE 67). Of all ER visits, 6.6% were for chronic conditions of which 30.1% were cardiovascular related.

Of MH Southeast's 16,017 inpatient discharges in 2015, 6,416 inpatient discharges or 40.0% were related to an ambulatory care sensitive condition. The top five ambulatory care sensitive conditions that resulted in inpatient care at MH Southeast in 2015 were congestive heart failure (181 discharges), diabetes (173 discharges), chronic obstructive pulmonary disorder (126 discharges), bacterial pneumonia (124 discharges), and cellulitis (123).

FIGURE 67. PRIMARY CARE TREATABLE EMERGENCY DEPARTMENT VISITS AT MH Southeast BY TOP 20 ZIP CODES, 2012-2013



DATA SOURCE: Memorial 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

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

Key informant interviewee

"Our school systems are strong."

Focus group participant

"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. As one informant stated, *"Houston is an extremely rich place, culturally. We have something for everyone. Community needs can be met pretty well here in Houston because there's a lot of understanding of different types of needs. The feeling is that you can always find community."* Many key informants and focus group participants described a sense of social cohesion across communities. Another informant described: *"the diversity in the city is a big strength. It contributes to openness and acceptance and tolerance for new people. There's a real meritocracy here. Not a lot of rigidity in bureaucracies. It's a good place to live."* This cohesion does not just occur within neighborhoods, but also within groups sharing a common issue. For example, one focus group participant representing the Hispanic community reported: *"We're a tight knit community."*

Strong Schools

The communities served by MH Southeast had strong schools, according to key informants and focus group respondents. According to one key informant, *"We have great school districts. Education outreach is good."* Key informants and focus group participants reported that parental engagement is high in many of their communities, driven largely by the proactive outreach done to parents by schools and social cohesion among parents. *"We do proactive outreach as a district, embrace families and bring them in, provide additional training for parents especially around English as a Second Language, trying to connect them with social services and resources."*

High Quality Medical Care

A theme among key informants and focus group participants was the wide availability of health care services and the high quality of those services, in Houston. *"[We have] one of the strongest complex of medical services in United States and the world."* Key informants and focus group participants also communicated the theme of innovation regarding the health care system. As one key informant interviewee reported, *"[there is a] spirit of innovation…I see that with our health department and health institutions…We are known for key research."*

Strong Public Health and Social Service System

The communities of MH Southeast were served by a dedicated network of public health and social service organizations. Many focus group participants and key informant interviewees reported that their communities were served by a number of non-profit and other charitable organizations. *"There are organizations doing good work with the resources they have. We have a very strong presence 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." Indeed, local school districts implemented several strategies, such as school-based health clinics and outreach to families, to promote wellbeing and health among students. Along with the theme of social cohesion and a sense of community closeness reported earlier, key informants also described charitable organizations or collaborations: *"Social services are good quality. [We have] many strong community and business partners."*

Economic Opportunity

Many key informants and focus group participants described a generally robust economy, creating economic opportunities for residents and businesses in the communities served by MH Southeast. As one key informant noted, *"There are jobs here. They may not be high paying jobs, but they provide some income for people to survive."* The cost of living was also reported as a positive by focus group participants, such as one who stated, *"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. *"We should be focusing on healthy lifestyles… People need to know how to live healthy with diseases like diabetes or HIV."* Key informants and focus group participants had many ideas about the strategies that might be used to promote healthy living. For example, one informant suggested insurance incentives: *"An insurance product can encourage healthy lifestyles. If you can put a reasonable one in peoples' hands…that incentivizes people and it could have the biggest effect."* Other stakeholders suggested investment in education in communities with the highest rates of obesity to promote healthier habits. Several participants suggested providing tailored services or programs to different groups in the community and ensuring that these initiative were in places where community members felt comfortable. 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. A couple suggested PSAs with positive messaging around healthy lifestyles.

Expand Availability and Access to Health Care Services

While the Greater Houston region offers a multitude of health care services that are recognized as being among the best in the United States, access remains a top issue that community stakeholders wished to see addressed. Informants described a more limited public health and health care infrastructure in the MH Southeast area relative to other communities in the Greater Houston area..Another informant noted, *"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. Another informant cited the importance of expanding the school-based health clinic model in communities served by MH Southeast to promote child health and improve educational outcomes, *"We need to find more partnerships to expand school clinics."*

Expand Access to Behavioral Health Services

Informants identified behavioral health care access as being a major unmet need in the youth and lower-income communities served by MH Southeast. *"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. Another informant noted that students with behavioral health needs are *"having difficulty connecting with [mental health] resources."* Many stakeholders reported that the Texas Section 1115 Medicaid demonstration waiver had opened the door in the state to improvement in access to and quality of behavioral health services. Stakeholders suggested

Texas should pursue strategies that sustain these efforts and continue to promote innovation within the behavioral health services space.

Improve Transportation

Transportation presents many problems in the communities served by MH Southeast, 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, particularly for lower income and senior populations. For example, stakeholders suggested non-profits could offer more transportation services.

Provide Support to Navigate the Health Care System

Residents need assistance in facing the number of barriers to accessing health care services in the communities served by MH Southeast. Stakeholders described existing strategies such as community health workers should be expanded. For example, a stakeholder stated that she suggests *"Navigator programs for people to access healthcare."* Senior focus group respondents were particularly insistent that advocates be available for them to navigate the complexities of the health care system. *"We need personal advocates for us seniors. We don't have anyone to fight for us, no one to talk for us."* Another senior focus group participant echoed, *"[We need] a liaison that's not attached to the medical system in any way."* Some stakeholders suggested the health care system become more holistic and consider incentivizing social support in the clinical space. For example, one informant said, *"If there was a mechanism to reimburse providers to provide social support within the healthcare setting…that would make patients' lives easier. They wouldn't have to worry as much about how to navigate the system. Maybe like a one-stop shop. More comprehensive care. Looking more like holistic care."*

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 Southeast. 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."*

KEY THEMES AND CONCLUSIONS

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

- **The growth in population over the past five years has placed tremendous burden on existing public health, social, and health care infrastructure, a trend that places barriers to pursuing a healthy lifestyle among residents.** The residents of communities served by MH Southeast are experiencing challenges associated with rapid population growth, including traffic-related constraints, new housing developments, concerns about public safety, 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, sidewalks, and prevention of violence are at a disadvantage in the pursuit of healthy living.

- **Harris County is unique in terms of demographics.** 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 Harris, Brazoria, and Galveston Counties experience similar challenges in terms of population health, Harris County also has more accessible social and health resources and better public transportation for its residents than Galveston and Brazoria Counties.

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

- **Communities served by MH Southeast have several health care assets, but access to those services is a challenge for some residents.** Transportation to health services was identified as a substantial concern, especially for seniors and lower income residents, as there are few public transportation options in the region. While existing public transportation is being expanded in a limited way in Harris County, some communities served by MH Southeast have limited access to public health transportation and described limited access to taxi services. Communities that have benefited from recent improvements in public transit noted that the public transportation system improved access to a limited corridor within Houston. There is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care, behavioral health, and specialty services as well as actively participating in their communities.

- **Although there is economic opportunity for many residents, there are several pockets of poverty and some residents faced economic challenges that can affect health**. Seniors and members of low-income communities faced challenges in accessing care and resources compared to their younger and higher income neighbors. While the proportion of residents lacking health insurance has decreased slightly over the past five years, many adults and children faced barriers to obtaining care without a payment source. There are several support organizations in the community that help uninsured residents to obtain health insurance and charitable care such as federally qualified health centers and school-based health clinics. However, stakeholders emphasized that more support was needed for

this vulnerable population, particularly in areas that are less proximate to the medical systems concentrated closer to Houston. Strategies such as the incorporation of community health workers into health care systems may increase residents' ability to navigate an increasingly complex health care and public health system.

- **Behavioral health was identified as a concern among residents.** Stakeholders highlighted significant unmet needs for mental health services in the communities served by MH Southeast, particularly the burden of mental illness in 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

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 68, 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 Southeast. 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 Southeast, 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 68.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-Southeast served 24,928 individuals through 7 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. The ER navigation services at Memorial Hermann-SE consist of navigating self-pay/uninsured and Medicaid patients without a primary care provider and who present to the Emergency Department (ED) for primary care reasons. MH-Southeast utilizes two Certified Community Health Workers (CHWs) to provide the following navigation services: referrals to PCPs / Medical Homes; assistance with scheduling follow-up doctors' appointments, follow-up calls to assist patients with additional resources, and education on the importance of establishing a medical home. The Program has reduced ER visit utilization by 67% in the 12-months post discharge. A Supportive Care physician, working within the interdisciplinary team of a medical director, case manager, chaplain, ICU Director, pharmacist, educator, administrator, Oncology Director and Home Heath representative work

CHNA PRIORITIES	OBJECTIVES	RESULTS
		with 30 patients monthly, reducing ALOS from 7.5 days to 3.8 days.
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.	Memorial Hermann Medical Group employs primary care providers in our community and continues to promote and educate on the importance of having a family medicine physician in the community. A Convenient Care Center in the nearby community of Pearland opened in 2014 providing increased access to PCPs. An Urgent Care Center in another nearby community, Friendswood, was opened in 2015.
Address unhealthy lifestyles and behaviors	To continue to reinforce healthy lifestyles and influence and encourage behavior change.	MH-Southeast provides a Pediatric Weight Management Program focused on Obesity, Eating Disorders, and Body Image. Specific session topics include Healthy Nutrition, Healthy Eating/Shopping/Eating Out, Cooking Healthy, Emotional Aspects of Childhood Obesity, and Boundaries for Parents. The multi-disciplinary weight management program is designed to meet the specific needs of overweight children, early adolescents and teens. The program focuses on changing the behaviors relating to food and exercise for the whole family. Through partnerships with local school districts as well as the area's industrial companies, MH-Southeast addressed unhealthy lifestyles and behaviors by providing educational seminars and participating in health fairs, often with on-site dietitians. This work reaches anywhere between 5,000 to 12,000 persons each year. MH-Southeast's NewStart Medical and Surgical Weight Loss Program includes a multi-disciplinary team of surgeons, registered nurses, and registered dietitians to help individuals reach their weight loss goals. The program offers: free informational seminars, preoperative and postoperative education classes, and multi-disciplinary input for individualized patient care plans. MH-Southeast expanded the successful pilot “Eat This…Not That”. Eat This….Not That is offered and displayed throughout MH-

CHNA PRIORITIES	OBJECTIVES	RESULTS
		Southeast café providing suggestions to healthier options. Current vending has been enhanced to easily identify wellness offerings in the vending machines. Catering and Patient Menus were revised. New designed menus visually guide the patients to choose and recognize healthy options by providing carbohydrate serving size and icons for patients to identify. Employee wellness programs continue to include incentive/disincentive for wellness/non wellness selections. The MH-Southeast 2012 Employee Campaign was set to raise money for an Employee Workout Facility • By June 2012 the campaign raised $47,776.84 from 474 donors (Southeast Employees). • December 2013 – Construction began and equipment was ordered • February 2014 – Gym opened
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 provide rapid access to initial psychiatric treatment and outpatient services.	To address the barriers to obtaining mental health care, Memorial Hermann has a Psych Response Team used by all of its hospitals to identify, consult with and refer patients who would benefit from appropriate community mental health care. In FY 2016, consults totaled 8,335. Through appropriate referral and placement among 200+ mental health providers within the greater Houston area, the Psych Response Team has reduced emergency room average length of stay for psychiatric patients needing an inpatient psychiatric bed from 72 hours in 2000 to 5.5 hours today. The Psych Response Case Management Program provides intensive community-based case management services for individuals with chronic mental illness who struggle to maintain stability in the community. Since its inception in October 2013, this program has serviced 301 patients from enrollment to discharge. 1800 face-to-face encounters, where case manager and patient collaborate to maintain mental health stability, have

CHNA PRIORITIES	OBJECTIVES	RESULTS
		resulted in a reduced client facility utilization of 68% in the 6-months post discharge. The Memorial Hermann Mental Health Crisis Clinic is an "Urgent Care" outpatient mental health clinic intended to serve individuals in crisis situations or individuals unable to follow up with other outpatient providers for their mental health needs. The clinic aims to promote better health outcomes for patients with mental health treatment needs, decrease unnecessary ED visits, and decrease inpatient hospitalizations and incarcerations due to inability to engage and remain in mental health treatment. Licensed Clinic Social Workers and Licensed Professional Counselors assist in linking to outpatient follow-up, either by helping patients establish an appointment with an outpatient provider or by providing patients with resources and referrals. These clinics are not designed to provide continuous outpatient follow-up for mental health needs; rather, they serve as part of the mental health safety net in lieu of expensive ED visits. There are three clinic locations in the greater Houston area. From 2015-2016, patient encounters, including follow-up visits, totaled 7,149. Memorial Hermann Home Health has a behavioral health trained home health nurse that is available for home health needs that are complicated by behavioral health disease. MH-Southeast provides a Newborn Sibling Class, providing an opportunity for first time siblings ages 3 years old to 7 years old to be introduced to the various aspects of being a big brother/sister. MH-Southeast provides Neonatal Intensive Care Unit Sibling Preparations, providing an opportunity to prepare, educate and support siblings about the neonatal setting during their first visit and throughout hospitalization to cope and develop a positive relationship with their new baby brother or sister. MH-Southeast provides an Assisting Children of Adult ICU Patients with the Psychosocial Aspects Class, helping children and their families cope with issues related to their

CHNA PRIORITIES	OBJECTIVES	RESULTS
		family member's hospitalization including preparing to visit the ICU setting, and potentially address bereavement issues. MH-Southeast provides brochures/referral for outside grief counseling. MH-Southeast supports Art for Life, a program focused on helping children/teens undergoing physical, emotional or mental crisis to use art as a way of helping them work through and with their illness. They empower teens to embrace art as a way of expressing how they feel during what is a very scary and difficult time for them. The MH-Southeast Perinatal Bereavement Program offers a personal, long-term approach to serving those whose lives have been touched by the tragic loss of an infant during early pregnancy, stillbirth or during the first few months after birth. The staff understands that cultural, religious and personal diversity affects how each individual responds to feelings of grief and mourning. The bereavement coordinator is accredited by RTS Bereavement Services and Share Pregnancy and Infant Loss Support, Inc.
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.	MH-Southeast conducts an annual review of its community resource list, including low cost and county clinics, dental clinics, medication assistance, food pantries, and shelters. Charity medication assistance is provided to discharging clients. When necessary for discharge, cab vouchers are provided. Through partnerships with school districts, primarily Pasadena ISD, MH-Southeast evaluates student athletes in sports injury clinics and provides follow-up surgery and physical therapy to many indigent kids with little to no insurance coverage. MH-Southeast provides pharmaceutical support to two Memorial Hermann School-Based Health Centers located in Pasadena ISD. The clinics are located in schools and school districts that have students with documented barriers to health care. The Health Centers offer access to primary medical, mental health, nutritional and dental care services to

CHNA PRIORITIES	OBJECTIVES	RESULTS
		underserved children and incur 6,400 visits annually.
Increased access to affordable dental care	Not Applicable	The need for "increased access to affordable dental care" is not addressed due to the fact that dental is not a core business function of Memorial Hermann and the limited capacity of each hospital to address those needs. Memorial Hermann fully supports local governments in their efforts to impact these issues.
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 supports local governments in 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
Children's 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 Disabilities
Memorial Hermann Texas Medical Center
Memorial Hermann Health System
Office of Harris County Judge Ed Emmett
One Voice Texas
Pasadena Independent School District
SETRAC (Southeast Texas Regional Advisory Council)
Sheltering Arms Senior Services, Neighborhood Centers Inc.
Southwest Management District
Texas Legislature
The Harris Center for Mental Health and IDD (MHMRA)
Tri County Services
United Way of Montgomery County
University of Texas School of Public Health

APPENDIX C. FOCUS GROUP GUIDE

Goals of the Focus Groups:

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

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

BACKGROUND (5 MINUTES)

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

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

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

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

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

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

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

- Any questions before we begin our introductions and discussion?

INTRODUCTION AND WARM-UP (5-10 MINUTES)

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

COMMUNITY AND HEALTH PERCEPTIONS (15-20 MINUTES)

- Tonight, we're going to be talking a lot about the community or neighborhood that you live in. How would you describe your community?
    - If someone was thinking about moving into your community, what would you say are some of its biggest strengths or the most positive things about it? [PROBE ON COMMUNITY AND ORGANIZATIONAL ASSETS/STRENGTHS]
- What are some of the biggest problems or concerns in your community? [PROBE ON ISSUES IF NEEDED – HEALTH, ECONOMIC, SOCIAL, SAFETY, ETC.]
    - Just thinking about day-to-day life –working, getting your kids to school, things like that – what are some of the challenges or struggles <u>you</u> 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 <u>easier</u> 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 programs, services, and policies are you aware of in the community that currently focus on these health issues?

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

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

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

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

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

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

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

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

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

- Let's talk about healthy eating.

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

    - What kinds of programs or services would you want to see in your community to help people with healthy eating? What would the program look like?

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

- Let's talk about exercise.

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

    - What kinds of programs or services would you <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 1 thing that you think needs to be done in the next year that would help make the biggest difference in improving community health?

- Thinking about the future, what would you like to see MHHS/[NAME OF FACILITY] work on to address community needs?

    - What resources or supports are needed to facilitate this success? What needs to be in place as planning and implementation move forward?

CLOSING (2 minutes)

- Thank you so much for your time. That's it for my questions. Is there anything else that you would like to mention that we didn't discuss today? Thank you again. Have a good day.

Please address written comments on the CHNA and Strategic Implementation Plan and requests for a copy of the CHNA to:

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