

# Memorial Hermann Health System

Memorial Hermann Surgical Hospital – Kingwood  
Community Health Needs Assessment 2016

June 8, 2016

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# EXECUTIVE SUMMARY

## Introduction

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

***The community defined for this CHNA included the cities and towns of Humble, Kingwood, Porter, Cleveland, New Caney, Houston, Huffman, Splendora, Crosby, and Dayton within the counties of Harris, Montgomery, Liberty, and San Jacinto.***

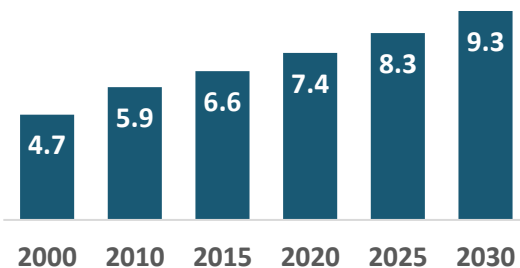
## Key Findings

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

### Community Social and Economic Context

- **Population Growth and Size:** Montgomery County was the fastest growing county within the MH Surgical Hospital Kingwood community (3.1% increase in 2010-2014 from the 2005-2009 estimate). The Houston metropolitan area 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:** Harris and Montgomery Counties had a slightly higher proportion of residents under the age of 18 than Liberty and San Jacinto Counties. San Jacinto County had the largest proportion of people 65 years of age and older (18.1%). Crosby had the highest proportion of young residents (31.3%) while Splendora had the highest proportion of residents over age 65 (14.7%).
- **Racial and Ethnic Distribution:** Harris County had greater racial and ethnic diversity among its residents than the other three counties. Harris County is predominantly comprised of residents who self-report their racial and ethnic identity as Hispanic (41.1%) or White, non-Hispanic (32.6%). Black, non-Hispanic residents comprised 18.5% of the population of Harris County and Asian, non-Hispanics comprised 6.3%. Hispanics comprised 21.2% of the population of Montgomery County and 11.2% of San Jacinto County. Among the cities and towns in MH Surgical Hospital Kingwood's community, Houston was the most diverse, with 43.6% of residents identifying as Hispanic and 25.8% identifying as White, non-Hispanic. In Houston, 23.0% of the population identified as Black, non-Hispanic and 6.2% identified as Asian, non-Hispanic.
- **Linguistic Diversity and Immigrant Population:** Almost half (42.5%) of Harris County residents spoke a language other than English at home, while in the other counties, less than 20% spoke a language other than English at home. Across MH Surgical Hospital Kingwood communities,

speaking a non-English language at home ranged from a low of 10.6% in Splendora to a high of 46.3% in Houston. A large proportion of the non-English speaking population (over 80%) served by MH Surgical Hospital Kingwood spoke Spanish or Spanish Creole at home. One in four residents in Harris County was foreign-born, whereas far fewer residents in the other counties were foreign-born. From 2000 to 2013, Houston's immigrant population grew nearly twice the rate of the national average: 59% versus 33% in the United States.

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

- **Income and Poverty:** The median household income in the four counties served by MH Surgical Hospital Kingwood ranged from \$46,107 in San Jacinto County to \$67,766 in Montgomery County. The highest median household income in Crosby (\$58,750) was much higher than the lowest median household income in Cleveland (\$27,213). The proportion of adults below the poverty line in 2009-2013 was highest in Cleveland (28.0%) and lowest in Humble (15.2%).
- **Employment:** Unemployment rates for Texas and all four counties served by MH Surgical Hospital Kingwood peaked in 2010 but have decreased consistently over the past five years. For example, the unemployment rate in Harris County decreased from 8.3% in 2010 to 4.9% in 2014. The unemployment rate in Montgomery County decreased from 7.5% in 2010 to 4.4% in 2014.
- **Education:** Liberty County (62.1%) had the highest proportion of residents over 25 years old with a high school diploma or less, while Montgomery County (30.7%) had the highest proportion of residents with a college degree or higher. The proportion of residents by city with a high school diploma or less ranged from 47.1% in Houston to 66.7% in Cleveland. Houston had the highest proportion of residents with a

college degree or higher (29.2%) while Splendora had the lowest (8.5%).

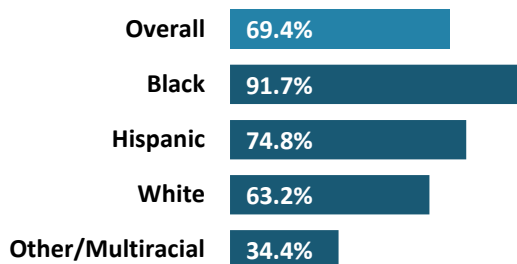
- **Housing:** The monthly median housing costs for homeowners were similar for owners in Harris (\$1,232) and Montgomery (\$1,242) Counties and far lower for homeowners in Liberty (\$667) and San Jacinto (\$612) Counties. For renters, monthly costs were highest in Montgomery County (\$965) and lowest in San Jacinto County (\$685). In all four counties, towns and cities, except Splendora, a higher percentage of renters compared to homeowners paid 35% or more of their household income towards their housing costs.
- **Transportation:** A majority of residents in the four counties served by MH Surgical Hospital Kingwood commuted to work by driving in a car, truck, or van alone.
- **Crime and Violence:** Rates of both violent and property crime were highest in Harris County and lowest in Montgomery County. Among the cities and towns, the violent crime rate was highest in Houston (954.8 offenses per 100,000 population) and lowest in Splendora (300.5 offenses per 100,000 population). The property crime rate was highest in Humble (10,475.9 offenses per 100,000 population) and lowest in Splendora (1,923.1 offenses per 100,000 population).

### Health Outcomes and Behaviors

#### Physical Health

- **Overall Leading Causes of Death:** Liberty County experienced the highest overall mortality rate (1,027.1 per 100,000 population) of the four counties served by MH Surgical Hospital Kingwood. San Jacinto County had the highest mortality rates in all top leading causes of mortality—which includes heart disease, cancer, stroke, and chronic lower respiratory disease—compared to the other three counties. Persons aged 85 years of age or older were the most likely age group to commit suicide in 2013 in Harris County, with a rate of 24.2 suicides per 100,000 population.

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



- **Overweight and Obesity:** In 2013, the proportion of Harris County residents reported that they were overweight or obese was 69.4%. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) Nine out of ten (91.7%) Black, non-Hispanic adult residents in Harris County were considered overweight or obese in 2013. Overall, about one third of Houston high school students were considered overweight (16.3%) or obese (17.9%).
- **Diabetes:** In Harris County in 2014, 10.4% of adults self-reported to have been diagnosed with diabetes. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Montgomery County had 7.3 admissions per 100,000 population.
- **Heart Disease, Stroke, and Cardiovascular Risk Factors:** In 2014, 2.8% of Harris County adults self-reported having been diagnosed with angina or coronary heart disease, and 3.6% of adults in Harris County self-reported having a heart attack during the past year. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) In 2014, 3.8% of Harris County adults self-reported having a stroke during the past year. Over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%).
- **Asthma:** The rate of discharges for asthma in Liberty County (11.5 per 10,000 population) was higher than for the other three counties. 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 10.2 per 10,000 population).

- **Cancer:** San Jacinto County saw the highest incidence of cancer (479.1 per 100,000 population) while Liberty County saw the lowest (411.6 per 100,000 population). However, Liberty County (at 208.4 per 100,000 population) and San Jacinto County (209.8 per 100,000 population) experienced a higher cancer mortality rate than the other counties (Harris: 163.4 per 100,000 population and Montgomery: 164.8 per 100,000 population). In a 2014 Behavioral Risk Factor Surveillance survey, 81.6% of women aged 40 years or older indicated they had had a mammogram in the past two years while 70% of women indicated that they had had a Pap test to test in the past three years. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.)
- **HIV and Sexually-Transmitted Diseases:** Harris County experienced the highest HIV rate in the region, with 516.1 people per 100,000 population living with HIV in the county, up from 478.4 people per 100,000 population in 2011. Rates of sexually transmitted diseases—chlamydia, gonorrhea, and syphilis—were markedly higher in Harris County compared to the other counties in 2014. From 2011 to 2014, chlamydia and gonorrhea case rates increased in all four counties. Syphilis case rates increased in Harris and Montgomery Counties but decreased in Liberty and San Jacinto Counties from 2011 to 2014.
- **Tuberculosis:** Harris County saw the highest tuberculosis rate in the area, with 7.2 cases per 100,000 population, over five times the rate in Montgomery County (1.2 per 100,000 population) and over twice as high as in Liberty County (2.6 per 100,000 population).
- **Influenza:** In 2014, 35.9% of adults self-reported as having a seasonal flu shot or vaccine via nose spray, and residents aged 65 years or older were disproportionately more likely to have received a flu shot (59.0%) than other age groups.
- **Oral Health:** Across the four counties served by MH Surgical Hospital Kingwood,

Harris County had the highest rate of dentists (57.4 per 100,000 population) and San Jacinto County had the lowest rate of dentists (6.9 per 100,000 population). Hispanic adults in Harris County reported the lowest rates of annual dental visitation (50.6%) compared to adults of other races or ethnicities.

- **Maternal and Child Health:** Approximately one in ten babies born in the four counties were premature in 2013. The proportion of low birthweight babies was higher in Harris County (8.6%) and Liberty County (8.2%) compared to San Jacinto County (7.7%) and Montgomery County (6.6%). In Harris, Montgomery, and San Jacinto Counties, Black, non-Hispanic babies were more likely to be low birthweight than babies of other races and ethnicities. Teen births rates varied by race and ethnicity. Black, non-Hispanic teen mothers in San Jacinto County had the highest birth rate at 9.1%. Rates of first trimester prenatal care were 56.1% of Harris County live births, 60.7% of Montgomery County live births, 51.7% of Liberty County live births, and 54.2% of San Jacinto County live births. Rates of receiving no prenatal care were 3.9% and 3.1% for Harris and Montgomery County mothers, respectively. (Data not available for Liberty or San Jacinto Counties.)

median household incomes. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.)

- **Physical Activity:** More than two-thirds (68.2%) of adults surveyed in Harris County indicated that they had gotten any type of physical activity in the past month, with Hispanics being less likely to report physical activity than other race and ethnicities. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.)

### Behavioral Health

- **Adult Mental Health:** In 2014, 19.3% of adults in Harris County self-reported having five or more poor mental health days. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) 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.

***“At a state level, we are funded 49th in behavioral health care. We have not done a good job in Texas of investing in mental health.”***

**Key informant interviewee**

### Health Behaviors

- **Food Access:** In all three counties served by MH Surgical Hospital Kingwood, a quarter or more of all children (i.e., those under age 18) were considered to be food insecure. The number of grocery stores available to residents ranged from 11 per 100,000 population in Montgomery County to 19 per 100,000 population in Harris and San Jacinto Counties. Montgomery County residents in 2012 had the highest access to convenience stores. There were far fewer fast food restaurants in San Jacinto County compared to the other counties.
- **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 Montgomery, Liberty, and San Jacinto Counties.) Lower income Harris County adults ate fewer fruits and vegetables than residents with higher

- **Substance Use and Abuse:** In 2014, 13.7% of Harris County adults self-reported binge drinking in the past month, and 13.6% of adults self-reported being current smokers. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) Montgomery County had the highest rates of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (113.3 per 100,000 population), and Harris County had the lowest rate (66.9 per 100,000 population) (data for San Jacinto County not available).

### Health Care Access and Utilization

- **Health Insurance:** Uninsurance rates decreased for Harris, San Jacinto, and Montgomery Counties, but not Liberty County, following the passage of the Affordable Care Act in 2010. During the



2009-2014 period, Harris County had the highest proportion of uninsured individuals, while Montgomery County had the lowest percent. In 2013, the zip code with the highest rate of uninsured residents of all ages was 77328 in Cleveland (San Jacinto County) with a rate of 30.2%. The zip code with the highest rate of uninsured residents among those under age 18 was 77338 in Humble (Harris County) with a rate of 20.0%. Among the zip codes served by MH Surgical Hospital Kingwood, 55,185 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77396 in Humble (7,589 enrollees). In Montgomery County, the zip code with the most Medicaid enrollees was 77365 in Porter (5,209 enrollees). In Liberty County, the zip code with the most Medicaid enrollees was 77535 in Dayton (4,420 enrollees). In San Jacinto County, the zip code with the most Medicaid enrollees was 77328 in Cleveland (3,181 enrollees).

- **Access to Primary Care:** In 2014, Harris County had a higher proportion of primary care physicians (82.6 per 100,000 population) while San Jacinto had the lowest (13.9 per 100,000 population). In Harris County, 38.2% of adult residents self-reported that they did not have a doctor or health care provider. Harris County had a higher proportion of primary care physicians (82.6 per 100,000 population) compared to Montgomery County (71.9 per 100,000 population), Liberty County (34.4 per 100,000 population), and San Jacinto County (13.9 per 100,000 population). In Harris County, 38.2% of adult residents reported in the BRFSS survey that they did not have a doctor or healthcare provider. (Data unavailable for Montgomery, Liberty, and San Jacinto Counties.) In the Houston-The Woodlands-Sugar Land MSA in 2014, 34% of physicians accepted all new Medicaid patients, 24% limited their acceptance of new Medicaid patients, and 42% accepted no new Medicaid patients. In Harris County in 2014, 37% of physicians accepted all new Medicaid patients, 23% limited their acceptance of new Medicaid patients, and 40% accepted no new Medicaid patients. (Data on Medicaid

acceptance is unavailable for other counties due to low survey response rates.)

### *Community Assets and Resources*

- **Diverse and Cohesive Community:** Residents and stakeholders described diversity and social cohesion as being among the primary assets and strengths of their community. Informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. This social cohesion does not just occur within neighborhoods, but also within groups sharing a common issue.
- **High-Quality, Plentiful Medical Care:** A key asset identified by key informants and focus group participants was the wide availability of health care services and the high quality of those services, both in Houston and within communities served by MH Surgical Hospital Kingwood. The health care system is also described as having a strong community health system in addition to world-class acute care.
- **Strong Public Health and Social Service System:** A robust network of public health and social service organizations serves the communities of MH Surgical Hospital Kingwood. Communities are served by a number of non-profit and other charitable organizations.
- **Strong Schools:** The communities served by MH Surgical Hospital Kingwood have strong schools, according to key informants and focus group respondents. Parental engagement is high in many of their communities, driven largely by the proactive outreach done to parents by schools and social cohesion among parents.
- **Economic Opportunity:** Many key informants and focus group participants reported improvement in the local economy, creating economic opportunities for residents and businesses in the communities served by MH Surgical Hospital Kingwood.

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

- **Promote Healthy Living:** Promotion of healthy eating, physical activity, and disease self-management by health care delivery

systems and supporting social service organizations was a top suggestion of stakeholders.

- **Improve Transportation:** Transportation presents many problems in the communities served by MH Surgical Hospital Kingwood, and stakeholders offered perspectives and ideas for future programs and services to alleviate the burden caused by traffic and the lack of transportation in some communities.
- **Provide Support to Navigate the Health Care System:** Residents need assistance in facing the number of barriers to accessing health care services in the communities served by MH Surgical Hospital Kingwood. Stakeholders described existing strategies such as community health workers should be expanded.
- **Expand Access to Behavioral Health Services:** Informants identified behavioral health care access as being a major unmet need in the communities served by MH Surgical Hospital Kingwood.
- **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 Surgical Hospital Kingwood.

### Key Themes and Conclusions

- **The counties of Harris, Montgomery, Liberty, and San Jacinto differ in terms of demographics and population health needs.** Liberty and San Jacinto County residents faced greater socioeconomic and health challenges than residents in the other two counties. Quantitative data indicate that San Jacinto and Liberty County residents are older, have a lower median household income, experience higher unemployment, and are less educated than their counterparts in Harris and Montgomery Counties. Both counties also have fewer dentists and primary care physicians per 100,000 population than the other counties. They also experience greater health challenges, including higher rates of mortality, cancer incidence, and rates of asthma admissions to the hospital.
- **The increase in population over the past five years has placed a tremendous burden on existing public health, social, and health care infrastructure, a trend that places barriers to pursuing a healthy lifestyle among residents.** Infrastructure that does not keep up with demand leads to unmet need and sustains unhealthy habits in the community. Communities without easy access to healthy foods, safe roads, affordable housing, fewer sidewalks, and experience more violence are at a disadvantage in the pursuit of healthy living.
- **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 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 these issues, there appears ample opportunity for action, partnership, and focusing on specific at-risk populations (e.g., rural communities, youth).
- **Communities served by MH Surgical Hospital Kingwood 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 unmet needs for mental health and substance abuse services in the communities served by MH Surgical Hospital Kingwood. 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 Surgical Hospital Kingwood

Located in northeast Houston, Memorial Hermann Surgical Hospital Kingwood (hereafter MH Surgical Hospital Kingwood) has been serving patients since 2007. A 10-bed facility, built upon a partnership with physicians, Memorial Hermann Healthcare System, and United Surgical Partnership International, MH Surgical Hospital Kingwood emphasizes physician participation while integrating the extensive resources of Southeast Texas' largest not-for-profit healthcare system with the experience of an international leader in the short-stay surgical hospital industry.

### 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. While other hospitals in MHHS conducted CHNAs in 2013, this is MH Surgical Hospital Kingwood's first CHNA.

### Purpose of Community Health Needs Assessment

As a way to ensure that MH Surgical Hospital Kingwood 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 Surgical Hospital Kingwood'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 Surgical Hospital Kingwood, MHHS, and its community partners set programming, funding, and policy priorities.

### Definition of Community Served

The CHNA process delineated each facility's community using geographic cut-points based on its main service area. MH Surgical Hospital Kingwood defines its community geographically as the top 75% of zip codes corresponding to inpatient discharges in fiscal year 2015. These selected zip codes correspond to the communities of Cleveland, Crosby, Dayton, Houston, Huffman, Humble, Kingwood, New Caney, Porter, and Splendora in the counties of Harris, Liberty, Montgomery, and San Jacinto. As shown in TABLE 1, a large majority of MH Surgical Hospital Kingwood inpatient discharges in fiscal year 2015 occurred to residents of Harris County (71.4%) or Montgomery County (18.7%); only a small proportion of inpatient discharges occurred to Liberty County residents (7.2%) or San

Jacinto County residents (2.7%). At a city level, most MH Surgical Hospital Kingwood inpatient discharges occurred to residents of Humble (31.9%) followed by Kingwood (27.3%). FIGURE 1 presents a map of MH Surgical Hospital Kingwood's CHNA defined community.

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

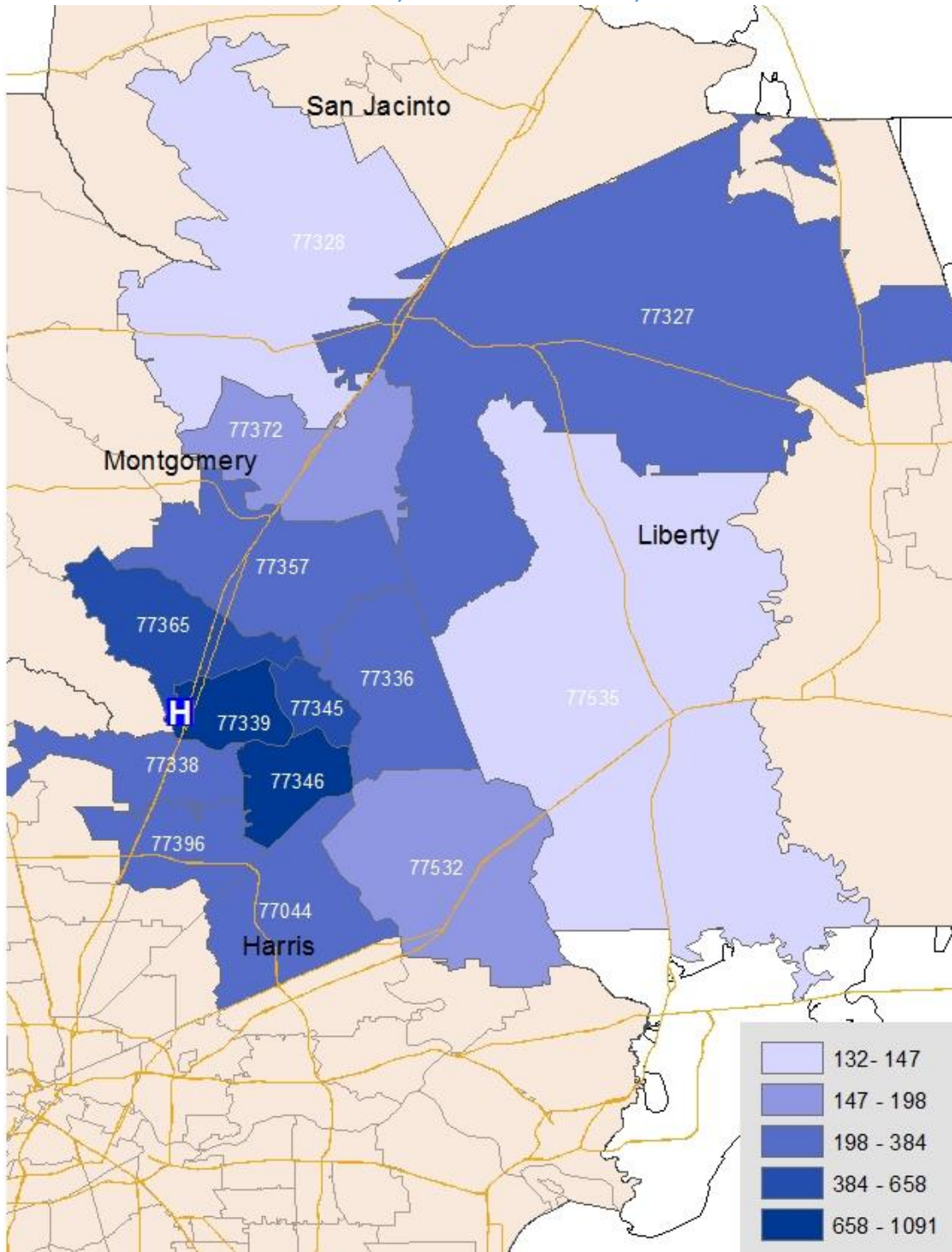
Geography	# inpatient discharges	% inpatient discharges
Harris County	3,925	71.4%
Montgomery County	1,028	18.7%
Liberty County	394	7.2%
San Jacinto County	147	2.7%
Humble	1,752	31.9%
Kingwood	1,501	27.3%
Porter	494	9.0%
Cleveland	409	7.4%
New Caney	336	6.1%
Houston	256	4.7%
Huffman	248	4.5%
Splendora	198	3.6%
Crosby	168	3.1%
Dayton	132	2.4%

**DATA SOURCE:** MH Surgical Hospital Kingwood, 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 SURGICAL HOSPITAL KINGWOOD COMMUNITY, BY COUNTY AND CITY, FISCAL YEAR 2015**



**Zip codes**

77346, 77339, 77345, 77365, 77396, 77357, 77044, 77338, 77336, 77327, 77532, 77372, 77535, 77328

**Cities and towns**

Cleveland, Crosby, Dayton, Houston, Huffman, Humble, Kingwood, New Caney, Porter, and Splendora

**Counties**

Harris, Liberty, Montgomery, and San Jacinto

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

## 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

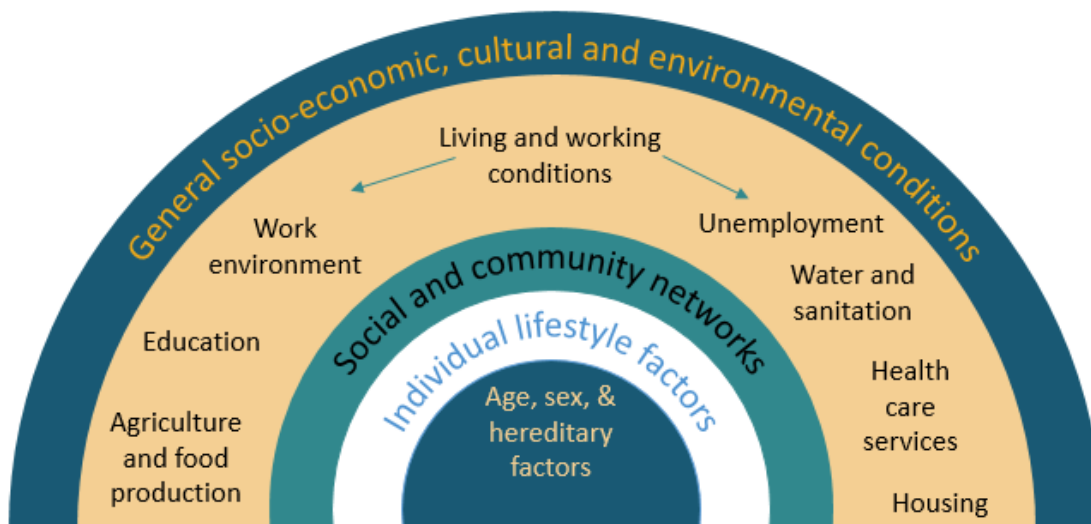
#### *Social Determinants of Health Framework*

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 Surgical Hospital Kingwood'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 CHNA process to ensure data comprised a range of social and economic indicators and were presented for specific population groups. According to Healthy People 2020, achieving health equity requires focused efforts at the societal level to address avoidable inequalities by equalizing the conditions for health for all groups, especially for those who have experienced socioeconomic disadvantage or historical injustices.

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

## Methods

### Quantitative Data

In order to develop a social, economic, and health portrait of MH Surgical Hospital Kingwood'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 Bureau, 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 Surgical Hospital Kingwood's community from October 2015 through February 2016. Focus groups were held with 93 community residents drawn from the region. With the exception of seniors (65 years or older), for which two focus groups were conducted, one focus group was conducted for each of the following population segments:

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

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



populations (e.g., low-income suburban community representing the MH Surgical Hospital Kingwood 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 Surgical Hospital Kingwood 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 Surgical Hospital Kingwood. Key informants were recruited by HRiA, working from recommendations provided by MHHS and MH Surgical Hospital Kingwood.

### 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 Surgical Hospital Kingwood 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 Surgical Hospital Kingwood'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, 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 under-report behaviors and illnesses based on fear of social stigma or misunderstanding the question being asked. In addition, respondents may be prone to recall bias—that is, they may attempt to answer accurately, but they remember incorrectly. In some surveys, reporting and recall bias may differ according to a risk factor or health outcome of interest. Despite these limitations, most of the self-report surveys analyzed in this CHNA benefit from large sample sizes and repeated administrations, enabling comparison over time.

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

## COMMUNITY SOCIAL AND ECONOMIC CONTEXT

### About the MH Surgical Hospital Kingwood 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 Surgical Hospital Kingwood community. Over the past two decades, the communities served by MH Surgical Hospital Kingwood have experienced population growth and economic transformation. Harris County is an area of substantial economic and socioeconomic diversity. The city of Humble, which accounted for about a third of MH Surgical Hospital Kingwood's patients in 2015, is known for its charm, and in recent years has become one of the fastest growing areas in Harris County. Kingwood, which accounted for slightly over a quarter of patients in 2015, is a master-planned community known as the "livable forest." Overall, the northeast region of Houston is known for its scenic beauty, including forest and recreational facilities.

Who lives in a community is related to the rates of health outcomes and behaviors of that area. While age, gender, race, and ethnicity are important characteristics that have an impact on an individual's health, the distribution of these characteristics in a community may affect the number and type of services and resources available. The four counties served by MH Surgical Hospital Kingwood have experienced an increase of population over several years, affecting the demand for resources by residents. Interview and focus group participants frequently noted that the communities served by MH Surgical Hospital Kingwood 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 Surgical Hospital Kingwood's community.

### Population Size and Growth

According to the American Community Survey (ACS), the Texas population increased by 9.5%, from 23,819,042 in 2005-2009 to 26,092,033 in 2010-2014 (TABLE 2). The total population across the four counties served by MH Surgical Hospital Kingwood was 4,860,174 based on 2010-2014 ACS estimates, 18.6% of Texas' total population. Between the time periods 2005-2010 and 2010-2014, the population in the four counties of Harris, Fort Bend, Montgomery, and San Jacinto increased. Montgomery County was the fastest growing county within the MH Surgical Hospital Kingwood community defined for this CHNA, with a 3.1% increase in 2010-2014 over the 2005-2009 estimate. Houston (population: 2,167,988) was the most populous city across the four counties served by MH Surgical Hospital Kingwood. Splendora (population: 1,850) was the least populous city. Between the time periods 2005-2010 and 2010-2014, Humble and Crosby experienced a population increase while the populations of Cleveland, Houston, Splendora, and Dayton decreased.

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

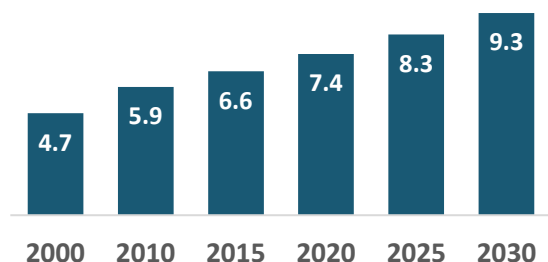
Geography	2005-2009	2010-2014	% change
Texas	23,819,042	26,092,033	9.5%
Harris County	4,182,285	4,269,608	2.1%
Montgomery County	472,162	487,028	3.1%
Liberty County	76,013	76,707	0.9%
San Jacinto County	26,669	26,831	0.6%
Humble	14,926	15,402	3.2%
Cleveland	7,925	7,684	-3.0%
Houston	2,191,400	2,167,988	-1.1%
Splendora	1,850	1,569	-15.2%
Crosby	2,127	2,619	23.1%
Dayton	7,588	7,350	-3.1%

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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

Focus group participants and key informants reported that the area served by MH Surgical Hospital Kingwood is experiencing population growth. Focus group members and interviewees pointed to development and sprawl as well as busy roads. Population growth was attributed to growing numbers of immigrants settling in the area as well as higher income people coming for jobs. The Greater Houston area's industries, particularly in the energy sector, also influences population growth, according to respondents, as it attracts employees from around the world. Several interviewees noted that rapid population growth has created challenges for the infrastructure in the region. As one provider shared, *"We have positive growth in our community, but this growth is also a strain on the health and social service system."* Rapid population growth in the Greater Houston area is a trend likely to continue well beyond this decade. The Houston metropolitan area is projected to increase from 5.9 million in 2010 to 9.3 million in 2030 (FIGURE 3).

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



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

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

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

### Age Distribution

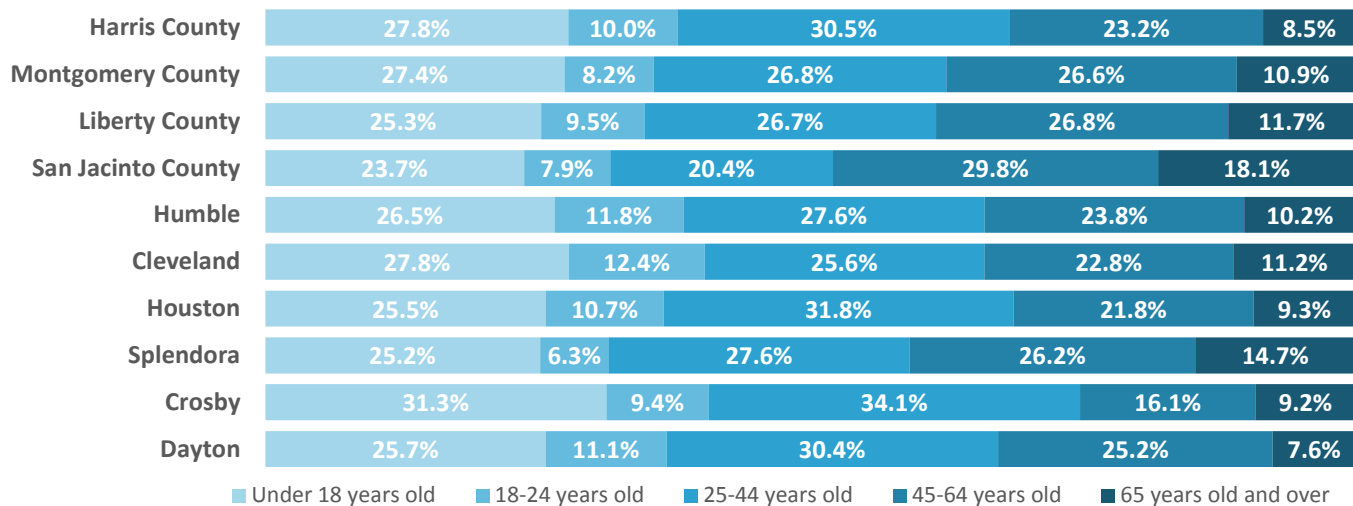
As populations age, the needs of the community shift based on increased overall need for health care services. The communities served by MH Surgical Hospital Kingwood are diverse in terms of age.

***"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 shows the age distribution of MH Surgical Hospital Kingwood's community at the county and city levels. In three of the four counties served by MH Surgical Hospital Kingwood (Harris, Montgomery, and Liberty), slightly over one quarter of the population was under the age of 18. San Jacinto County had the largest proportion of people 65 years of age and older, 18.1%. Among the communities served by MH Surgical Hospital Kingwood, Crosby had the highest proportion of young residents (31.3%) while Splendora had the highest proportion of residents over age 65 (14.7%). In Humble, which comprised about one third of MH Surgical Hospital Kingwood's patients in 2015, slightly over one quarter of the population was under the age of 18, and about 10% was age 65 or older.

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



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

### Racial and Ethnic Distribution

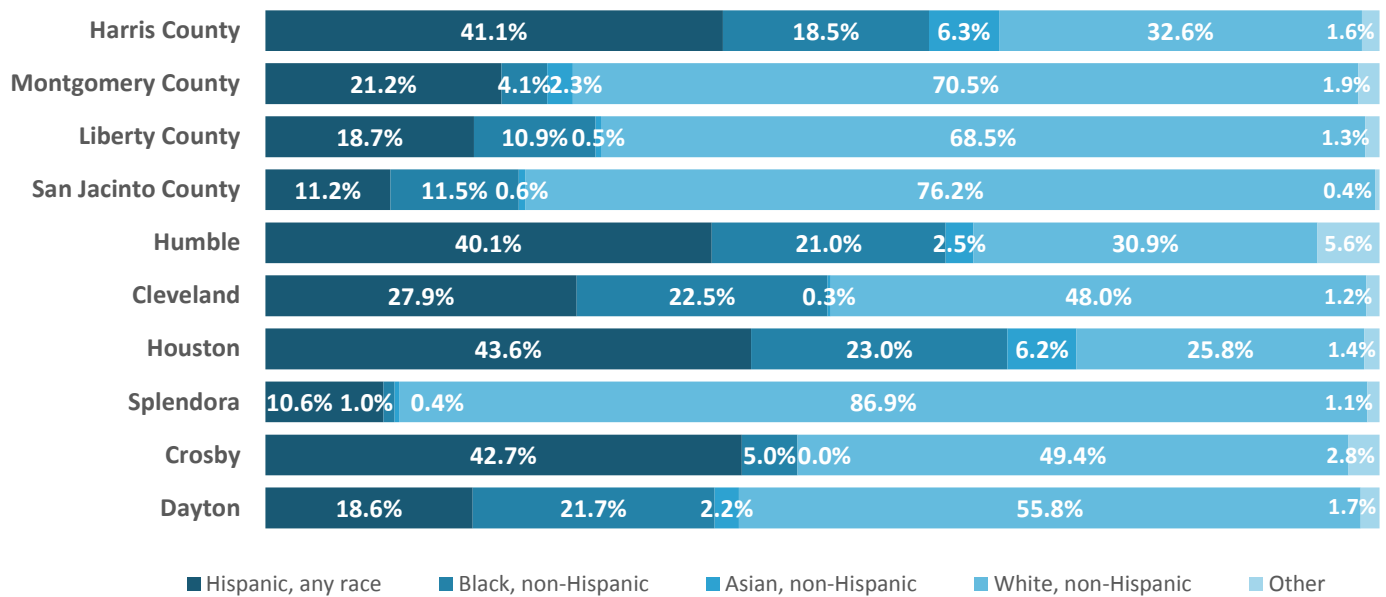
Due to a number of complex factors, people of color experience high rates of health disparities across the United States. As such, examining outcomes by race and ethnicity is an important lens through which to view the health of a community.

Qualitative and census data demonstrate the diversity of the population served by MH Surgical Hospital Kingwood in terms of racial and ethnic composition. Focus group participants and key informants frequently described the racial and ethnic distribution of their communities as diverse, although as one focus group member noted, *“Diversity depends on the neighborhood.”* Hispanics comprise the largest minority population group in the region and were described as including both long-standing residents and more recent arrivals. Respondents generally viewed diversity as a substantial strength, such as one key informant who stated, *“I think it is our diversification...of cultures. We are a very diverse community, and I think it gives our region great opportunity.”* However, focus group participants and interviewees also noted that some groups face challenges, including language isolation as well as cultural and other barriers to accessing health and social services.

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%). In Montgomery, Liberty, and San Jacinto Counties, the large majority of residents were White, non-Hispanic (70.5%, 68.5%, and 76.2%, respectively). Hispanics comprised 21.2% of the population of Montgomery County and 11.2% of San Jacinto County. The proportion of residents identifying as Black, non-Hispanic residents ranged from 4.1% of the population in Montgomery County to 18.5% of the population in Harris County. The proportion of residents identifying as Asian, non-Hispanic residents ranged from 0.5% of the population in Liberty County to 6.3% of the population of Harris County. Among the cities and towns in MH Surgical Hospital Kingwood’s community, Houston was the most diverse. The proportion of Hispanic residents ranged from 10.6% in Splendora to 43.6% in Houston. The proportion of Black, non-Hispanic residents ranged from 1.0% in Splendora to 23.0% in Houston. The proportion of Asian, non-Hispanic residents ranged from none in Crosby to 6.2% in Houston.

FIGURE 5 illustrates the racial and ethnic distribution of MH Surgical Hospital Kingwood’s communities.

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



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

**NOTE:** Other includes American Indian and Alaska Native, non-Hispanic; Native Hawaiian and Other, non-Hispanic; and two or more races, non-Hispanic; Data not available for Huffman, Kingwood, New Caney, and Porter.

### *Linguistic Diversity and Immigrant Population*

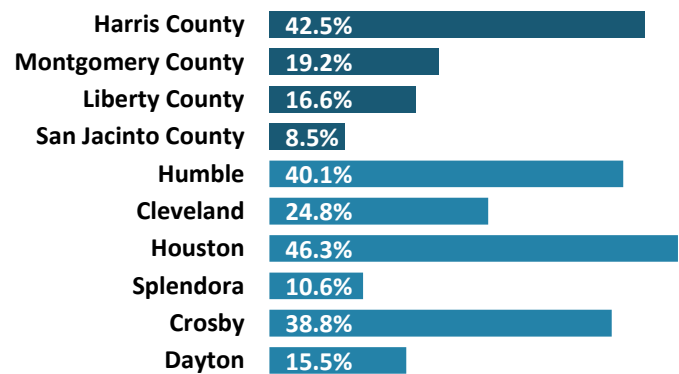
The nativity of the population, countries from which immigrant populations originated, and language use patterns are important for understanding social and health patterns of a community. Immigrant populations face a number of challenges to accessing services such as health insurance and navigating the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

MH Surgical Hospital Kingwood serves a community in which many residents speak a language other than English. A substantial number of Harris County residents (42.5%) spoke a language other than English at home, while in the other counties, less than 20% spoke a language other than English at home (FIGURE 6). In both Humble and Houston, over 40% of residents spoke a language other than English at home. Fewer non-English speakers resided in the other communities served by MH Surgical Hospital Kingwood: the proportion of residents who spoke a language other than English at home ranged from 10.6% in Splendora to 38.8% in Crosby.

FIGURE 7 shows the top five non-English languages spoken by county. Spanish was the language predominantly spoken in each of the communities

served by MH Surgical Hospital Kingwood: over 80% of the non-English speaking population in communities served by MH Surgical Hospital Kingwood spoke Spanish or Spanish Creole at home. About 7% of the non-English speaking population in Harris County spoke Vietnamese or Chinese; a smaller proportion of non-English speaking residents in Montgomery and Liberty Counties spoke an Asian language.

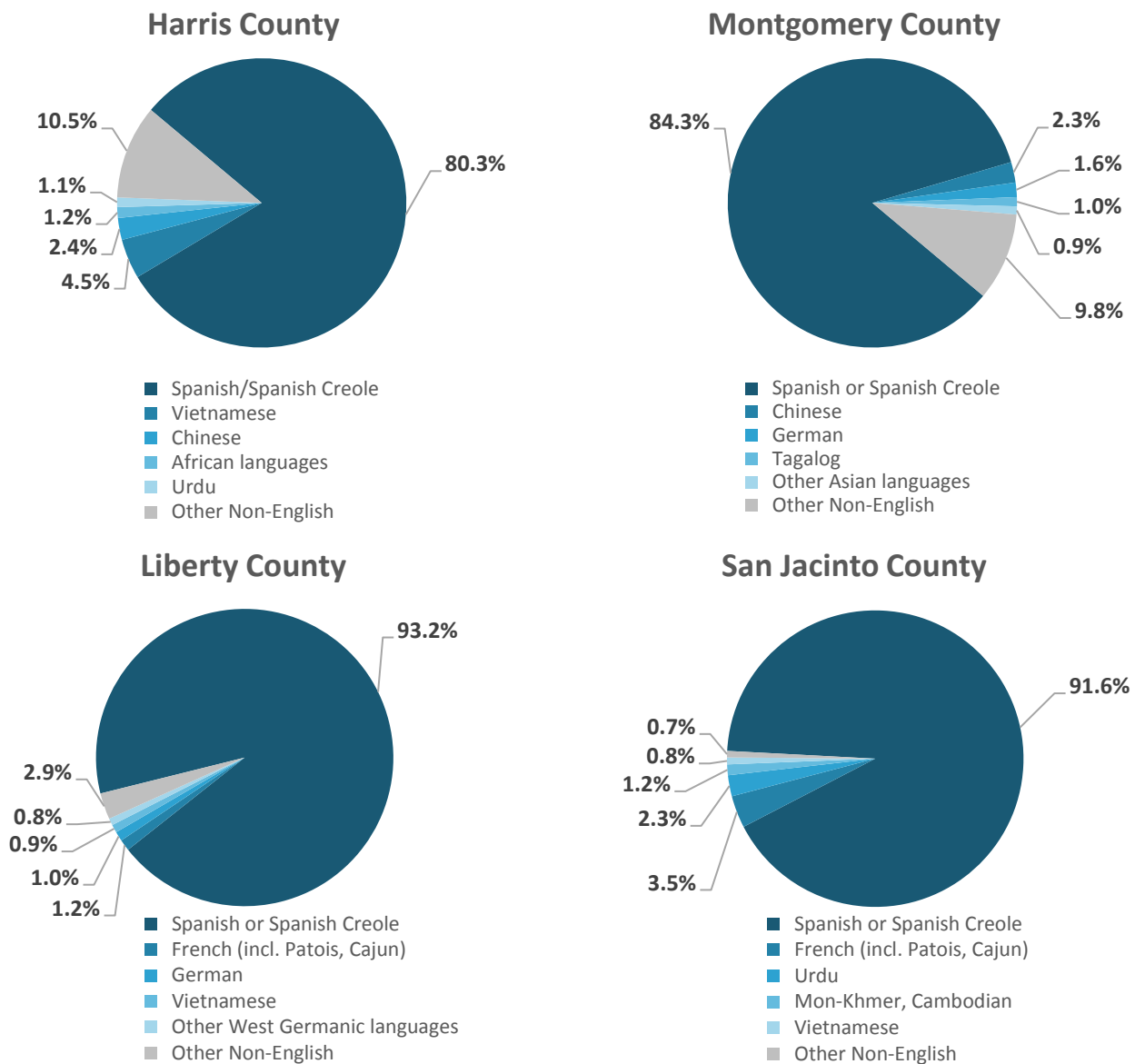
**FIGURE 6. PERCENT POPULATION OVER 5 YEARS WHO SPEAK LANGUAGE OTHER THAN ENGLISH AT HOME, BY COUNTY AND CITY, 2009-2013**



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

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



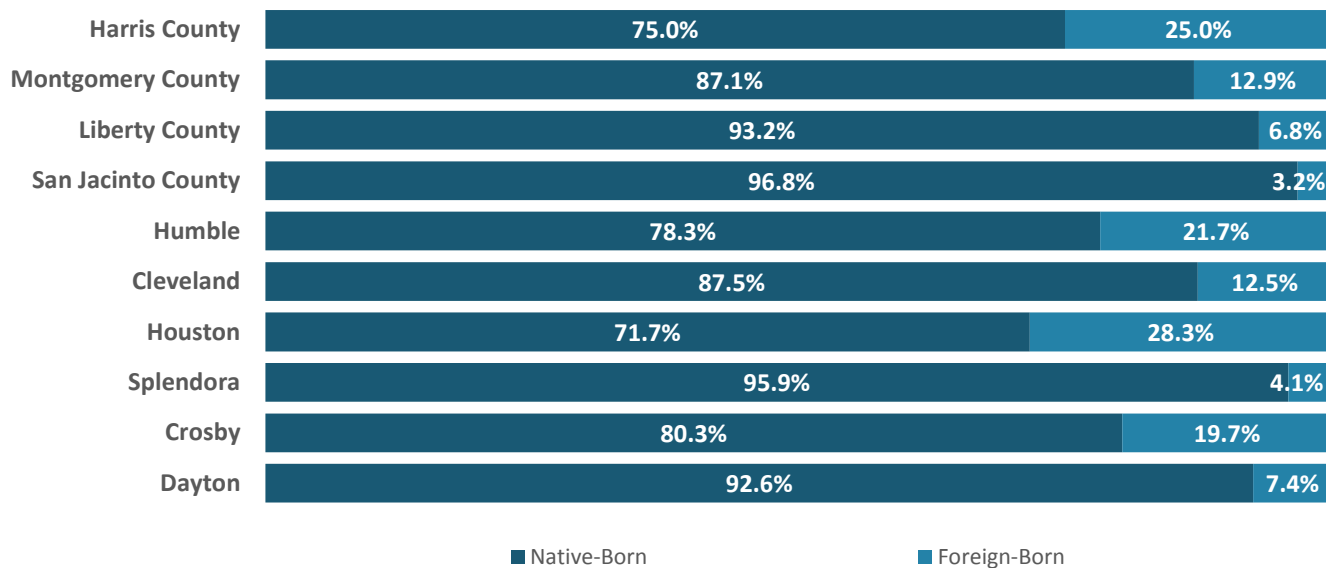
**DATA SOURCE:** U.S. Census Bureau, American Community Survey 5-Year Estimates, 2009-2013

Immigration is a major part of the Greater Houston metropolitan area's identity. 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. Informants described the MH Surgical Hospital Kingwood community as a collection of immigrants from both within and outside of the United States, including more transitional individuals from other countries coming for jobs. As pointed out by one focus group participant: "People are from all over. You see it on the playground... We

have one neighbor from Norway and Venezuela. The other is from Scotland." One in four residents in Harris County was foreign-born, the highest proportion of the four counties. The proportion of foreign-born residents in the other three counties ranged from 3.2% in San Jacinto County to 12.9% in Montgomery County (FIGURE 8). In Houston, 28.3% of residents were foreign-born while in Humble, 21.7% were foreign-born; fewer residents in the other municipalities were 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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

### 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 barrier to accessing goods and services.

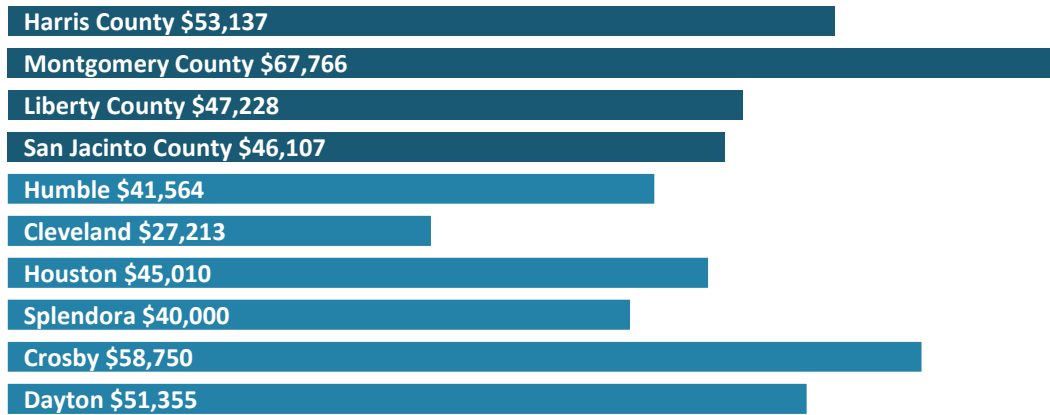
Focus group participants and key informant interviewees alike reported that the region served by MH Surgical Hospital Kingwood includes both wealthier and lower income individuals. As one person described, *“We do have some fairly affluent areas but there are many pockets where residents live below the poverty line.”* Themes emerging in focus group discussions and interviewees included the challenges that low-income residents face paying rent, buying nutritious food, and paying for health insurance and health care. Several interviewees mentioned that the recent downturn in oil prices has negatively affected some residents who were previously more economically secure. As one interviewee noted, *“Many folks are getting laid off and relying on public benefits; this means more families who need help.”*

***“But at the end of the day, if you are on a fixed income, do you choose to pay for insurance or pay for food for your family?”***

**Focus group participant**

Data from the 2009-2013 American Community Survey show that the median household income in the four counties served by MH Surgical Hospital Kingwood ranged from \$46,107 in San Jacinto County to \$67,766 in Montgomery County. Among the cities and towns, the median household income in Crosby (\$58,750), was much higher than the lowest median household income, in Cleveland (\$27,213) (FIGURE 9). FIGURE 10 shows the percent of adults below the poverty line in 2009-2013. San Jacinto County (18.0%) had the highest proportion of adults below the poverty line while Montgomery County (10.5%) had the lowest. Among the cities and towns, the proportion of adults below the poverty line in 2009-2013 was highest in Cleveland (28.0%) and lowest in Humble (15.2%).

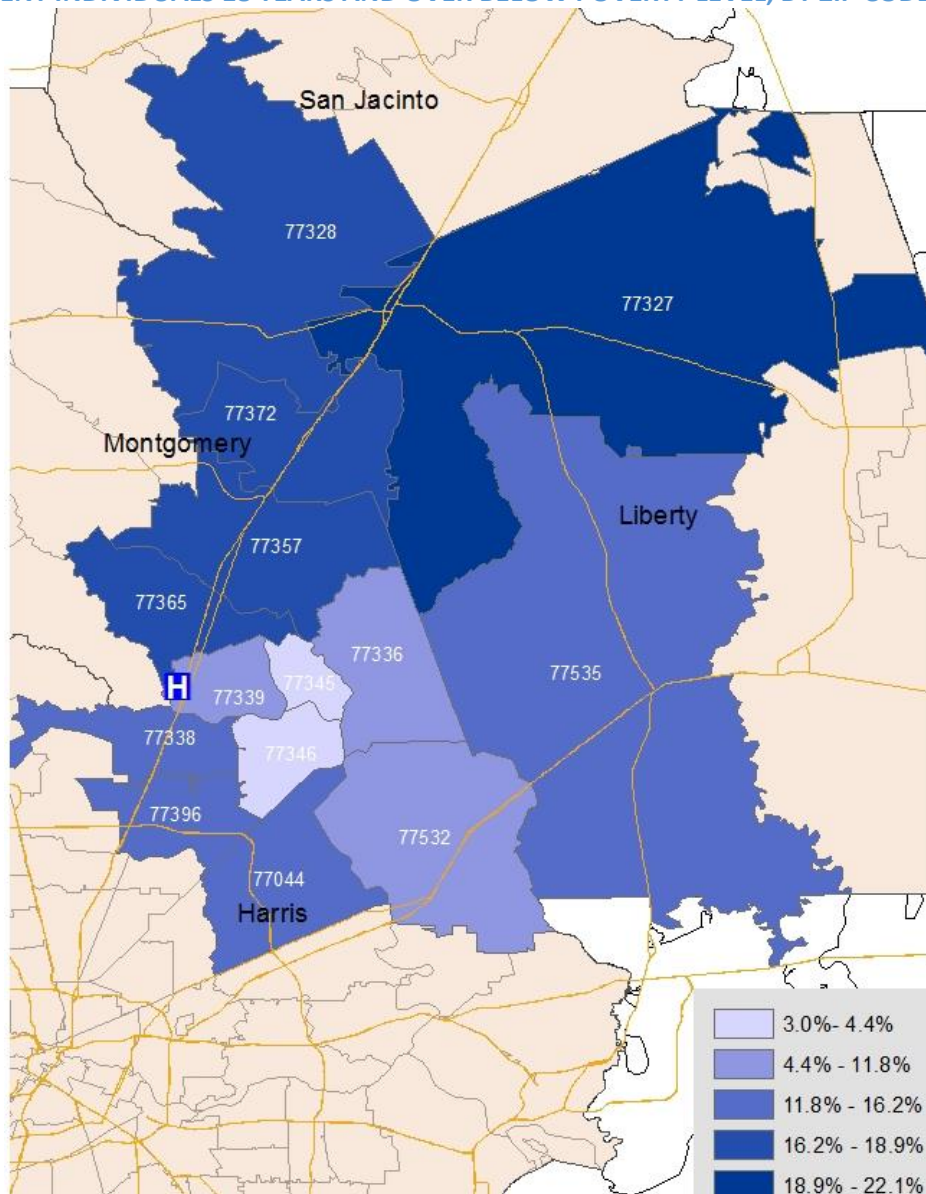
**FIGURE 9. MEDIAN HOUSEHOLD INCOME, BY COUNTY AND CITY, 2009-2013**



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

**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, 2010-2014



## Employment

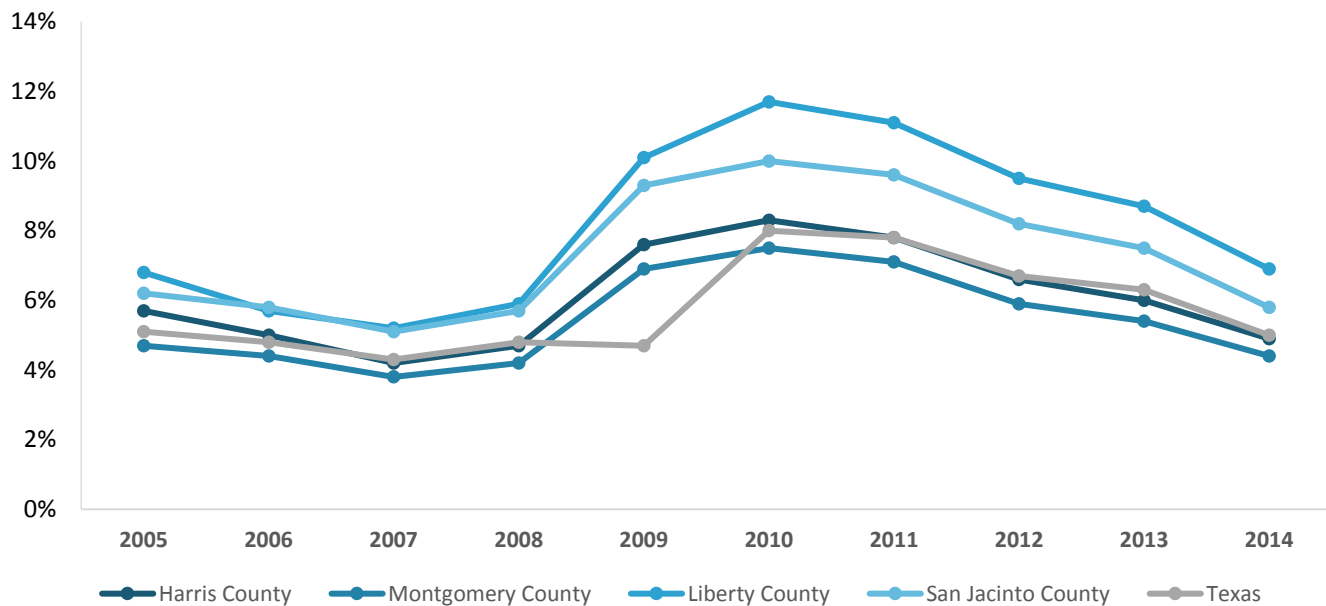
Employment status also can have an impact on one's health. Many focus group participants and key informant interviewees reported that the economic outlook of the Greater Houston area region was positive overall. However, several noted that the recent decrease in oil prices has had a negative impact on employment and expressed concern if prices continue to stay low. Some respondents expressed particular concern about low-wage workers—those who work multiple jobs, are often undocumented, and most often have no health insurance. As one key informant explained, *“There is a low rate of unemployment but a high rate of uninsured.”*

*“In terms of industry here, we are pretty stable. We don’t have a high unemployment rate here.”*

**Key informant interviewee**

Data from the American Community Survey show that the unemployment rates for Texas and all four counties served by MH Surgical Hospital Kingwood peaked in 2010, but have decreased consistently over the past five years (FIGURE 11).

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



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

## Education

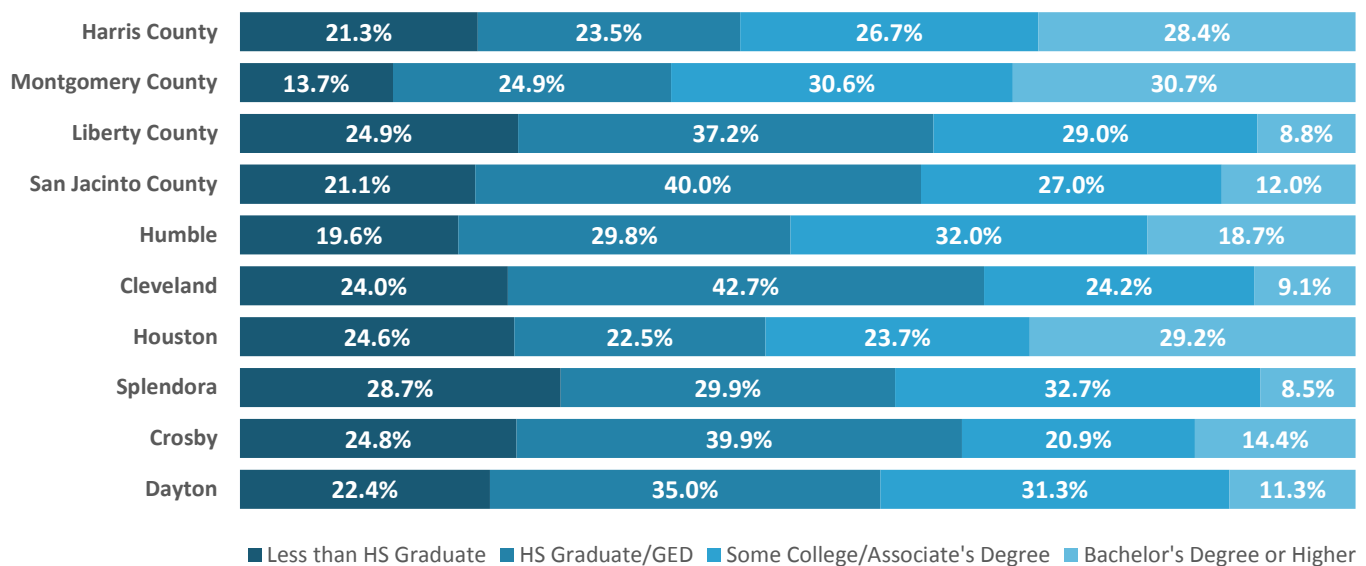
Educational attainment is often associated with income, and higher educational achievement is linked with greater health literacy. Perceptions of schools in the region were mixed. While some focus group members and interviewees reported that the schools in the region are strong, others reported that educational quality and opportunity varied across the region. Of the four counties served by MH Surgical Hospital Kingwood, a higher proportion of residents over 25 years old in Liberty County (62.1%) and San Jacinto County (61.1%) than in Harris County (44.83%) or Montgomery County (38.6%) had a high school diploma or less (FIGURE 12). The proportion of residents with a college degree or higher was far smaller in Liberty County (8.8%) and San Jacinto County (12.0%) compared to

***“Our school systems are strong. It’s important to get your high school diploma or GED.”***

**Key informant interviewee**

Harris County (28.4%) and Montgomery County (30.7%). In the cities and towns served by MH Surgical Hospital Kingwood, the proportion of residents with a high school diploma or less ranged from 47.1% in Houston to 66.7% in Cleveland. Houston had the highest proportion of residents with a college degree or higher (29.2%) while Splendora had the lowest (8.5%).

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



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

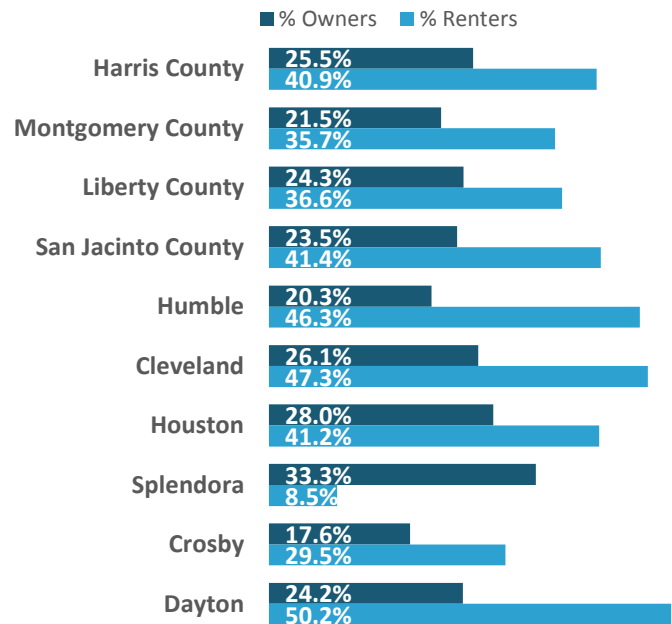
## Housing

Housing costs are generally a substantial portion of expenses, which can contribute to an unsustainably high cost of living. Additionally, poor quality housing structures, which may contain hazards such as lead paint, asbestos, and mold, may also trigger certain health issues such as asthma.

Perspectives on the cost of housing the region varied across informants. Some reported that housing prices were reasonable while others expressed concern about housing being unavailable or unaffordable, especially for some segments of the population. One key informant expressed concern about there being insufficient housing for the disabled: *“People with physical disabilities often have trouble finding shelter.”* Seniors were also identified as being at risk for housing insecurity. One focus group participant described how this issue affected her: *“The rent keeps going up. I’m trying to get into a senior home. I have to wait two years.”* A couple of respondents reported that among minority populations, multi-generational families living together is more common but can contribute to overcrowding. Some participants were concerned about the strain of population growth on the need for housing and subsequent need for more roads. In more urban areas, stakeholders reported there being a lot of apartment complexes where violence may be more likely to occur.

Housing costs differed across the four counties served by MH Surgical Hospital Kingwood: the monthly median housing costs for homeowners were similar for homeowners in Harris (\$1,232) and Montgomery (\$1,242) Counties and far lower for homeowners in Liberty (\$667) and San Jacinto (\$612) Counties. For renters, monthly costs were highest in Montgomery County (\$965) and lowest in San Jacinto County (\$685) (data not shown). Monthly housing costs ranged across the cities and towns. They were highest for homeowners in Houston (\$1,479) and lowest for homeowners in Splendora (\$962). For renters, monthly costs were highest in Splendora (\$905) and lowest in Cleveland (\$647). In all four counties and towns and cities, except Splendora, a higher percentage of renters compared to owners paid 35% or more of their household income towards their housing costs (FIGURE 13).

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



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

## Transportation

Transportation is important for people to get to work, school, health care services, social services, and many other destinations. Modes of active transportation, such as biking and walking, can encourage physical activity and have a positive impact on health. Almost all focus group participants and key informant interviewees reported transportation as a major concern in their community. Residents reported that private cars are the prominent means of transportation in the region and those who do not have cars, most notably seniors and low-income residents, face substantial transportation challenges.

***“Transportation will always be the biggest challenge, particularly for those with low socioeconomic status.”***

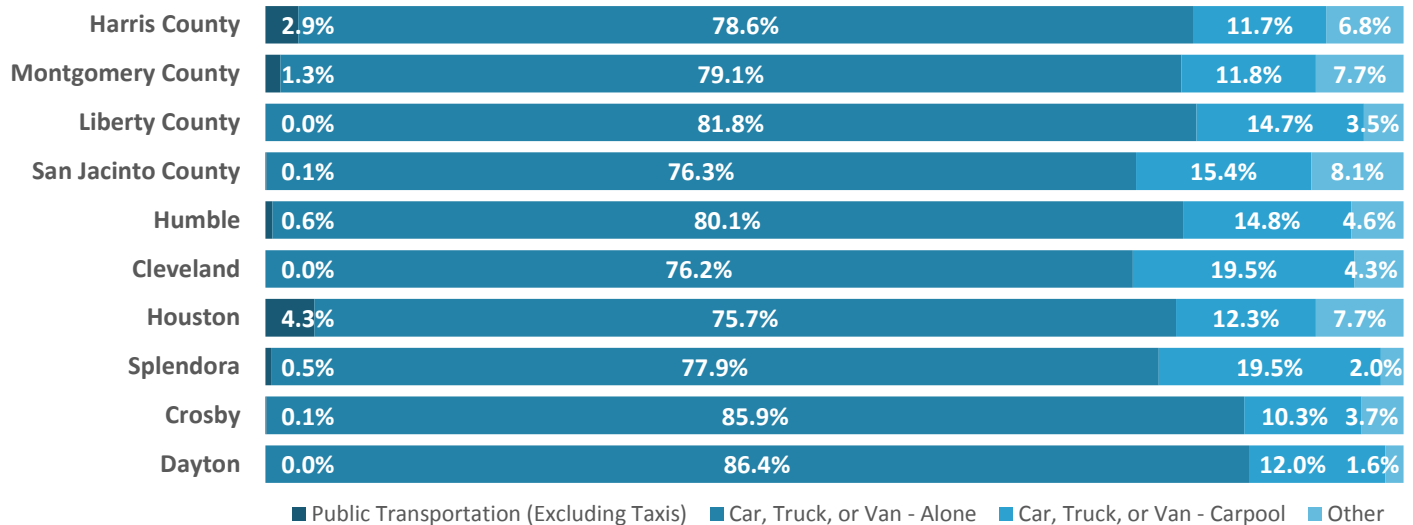
**Key informant interviewee**

There was conflicting feedback about the availability and quality of public transportation. One key informant reported: *“Our public transportation is not good enough. It’s a barrier. You don’t see as many people walking around in Houston.”* However, another informant shared the perspective that *“transportation is pretty good, we have a very strong public transportation system.”* Additionally, several respondents reported that there are transportation options for disabled persons and seniors and a limited number of programs that offer transportation vouchers; however, respondents also reported wait times for services, requirements that rides be scheduled far in advance, and long travel times. A related transportation issue raised by focus group members and interviewees is long commuting times. Several respondents connected long commuting times to health, such as one who shared, *“When you think about it, three hours commuting a day can take a toll on other things. Like do I have time to go to the grocery store? Do I have time to exercise?”*

When asked about active transportation options such as walking and biking, many respondents stated that concerns about safety, in addition to distances, presented barriers. Many communities do not have sidewalks, although this was reported to be changing. The region does not have bike paths and this creates safety issues for bicyclists. As a focus group member stated, *“I am afraid to get a bike because you can keep going and you’re going to get hit. There are so many hit and runs.”* Some attributed the lack of public and active transportation options to public attitudes. As one interviewee explained, *“In Texas, people feel like they need their cars....public transportation is viewed as something that’d lower property value.”*

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

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



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

**NOTE:** Data not available for Huffman, Kingwood, New Caney, and Porter

## Crime and Violence

Exposure to crime and violence can have an impact on both mental and physical health. Certain geographic areas may have higher rates of violence, which can serve as stressors for nearby residents. Violence can include physical, social, and emotional violence, such as bullying, which can occur in person or online. Focus group participants and key informants described the priority of violence as a top issue as being dependent on where one lives.

In some areas, crime was not described as a salient issue but in others, crime was top of mind. Participants in the CHNA described a number of crimes affecting their community including burglary, drug use and dealing, human trafficking, and gang violence. Other focus group participants expressed concern that violence in the community places their children at risk: *“Unfortunately, I think [the top issue] is violence. It’s gun violence. Our kids...I think about their safety. Either because of media or something...we see an uptick in children being exposed to violence.”* Personal safety while exercising and children playing outside was a concern expressed by several respondents. Focus group participants and key informant interviewees did not specifically name bullying in schools or cyberbullying as major issues in their communities.

Rates of both violent and property crime were highest in Harris County and lowest in Montgomery County (TABLE 3). Among the cities and towns, the violent crime rate was highest in Houston (954.8 offenses per 100,000 population) and lowest in Splendora (300.5 offenses per 100,000 population). The property crime rate was highest in Humble (10,475.9 offenses per 100,000 population) and lowest in Splendora (1,923.1 offenses per 100,000 population).

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

Geography	Violent Crime Rate	Property Crime Rate
Harris County	691.4	3,825.0
Montgomery County	147.3	1,622.8
Liberty County	373.0	2,946.7
San Jacinto County	187.8	2,014.6
Humble	590.2	10,475.9
Cleveland	816.8	9,295.9
Houston	954.8	4,693.7
Splendora	300.5	1,923.1
Dayton	377.3	3,031.9

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

**NOTE:** Violent crime includes murder, robbery, and assault; and property crime includes burglary, larceny, and auto theft; City data reported by city agency; Data not available for Huffman, Kingwood, New Caney, and Porter

## HEALTH OUTCOMES AND BEHAVIORS

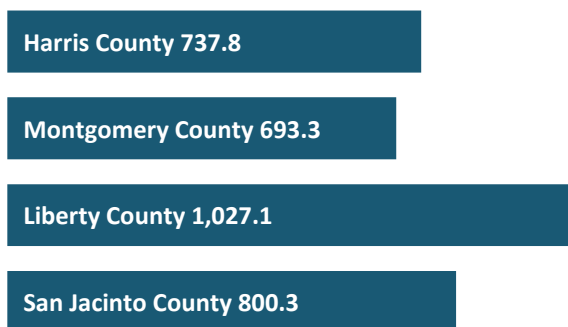
People who reside in the communities served by MH Surgical Hospital Kingwood experience a broad range of health outcomes and exhibit health behaviors that reflect their socioeconomic status and the built environment around them. Many of the demographic factors described previously such as population growth, lack of public transportation, and crime all have a role on population health, including mortality chronic disease, behavioral health, communicable disease, and oral health, among other issues. From mortality to healthy living, this section provides a snapshot of health within the communities served by MH Surgical Hospital Kingwood.

### Overall Leading Causes of Death

Mortality statistics provide insights into the most common causes of death in a community. This type of information can be helpful for planning programs and policies targeted at leading causes of death. According to the Texas Department of State Health Services, Liberty County experienced the highest overall mortality rate (1,027.1 per 100,000 population) of the four counties served by MH

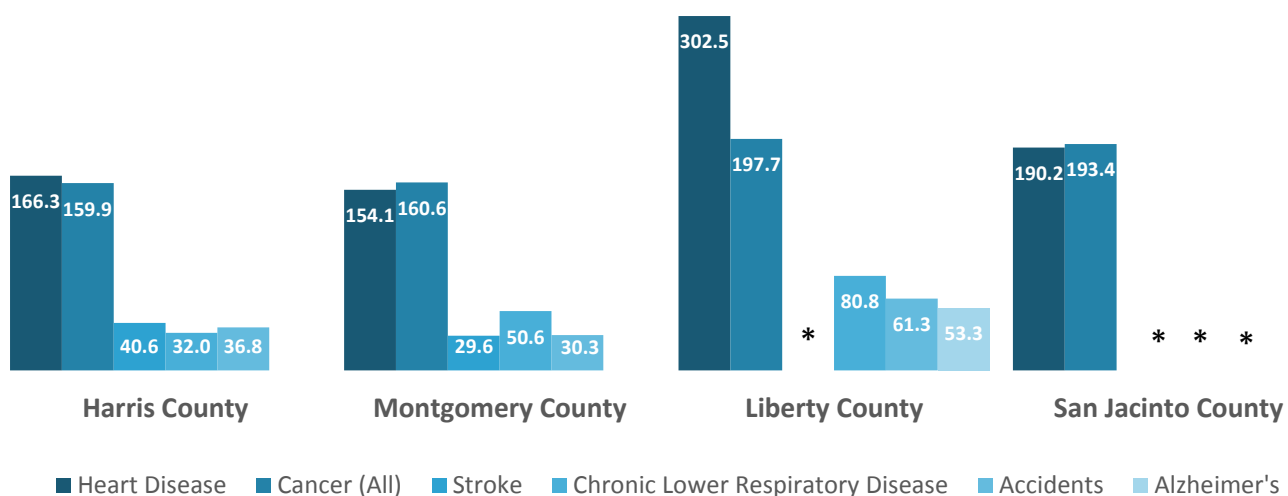
Surgical Hospital Kingwood (FIGURE 15). In 2013, San Jacinto County had the highest mortality rates in all top leading causes of mortality—which includes heart disease, cancer, stroke, and chronic lower respiratory disease—compared to the other three counties (FIGURE 16). TABLE 4 presents the leading causes of death by age and county in 2013.

**FIGURE 15. MORTALITY FROM ALL CAUSES AGE-ADJUSTED RATE PER 100,000 POPULATION, BY COUNTY, 2013**



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

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



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

**NOTE:** Age-adjusted mortality rate per 100,000 population

**NOTE:** Asterisk (\*) denotes unreliable rate

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

		Harris County	Montgomery County	Liberty County	San Jacinto County
Under 1 year	Certain Conditions Originating in the Perinatal Period	347.5	123.5	-	-
	Congenital Malformations, Deformations and Chromosomal Abnormalities	133.9	154.4	-	-
	Homicide	19.9	-	-	-
	Accidents	12.8	-	-	-
	Septicemia	8.5	-	-	-
1-4 years	Cancer	4.4	-	-	-
	Accidents	4.1	19.8	-	-
	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	21.7	-	-
	Homicide	16.2	7.8	-	-
	Suicide	8.6	15.5	-	-
	Cancer	4.8	-	-	-
	Heart Disease	2.3	-	-	-
25-34 years	Accidents	24.7	23.1	-	-
	Homicide	14.9	-	-	-
	Cancer	11.2	13.2	-	-
	Suicide	10.5	28.1	-	-
	Heart Disease	5.9	-	-	-
35-44 years	Cancer	29.3	33.5	65.9	-
	Accidents	28.2	36.3	-	-
	Heart Disease	19.3	13.9	-	-
	Suicide	11.1	19.5	-	-
	Homicide	9.8	-	-	-
45-54 years	Cancer	95.5	86.6	95.5	-
	Heart Disease	82.2	60.5	82.2	132.6
	Accidents	42.5	37.1	42.5	-
	Chronic Liver Disease and Cirrhosis	22.1	17.9	22.1	-
	Suicide	15.7	16.5	15.7	-
55-64 years	Cancer	273.3	286.5	356.5	227.3
	Heart Disease	194.8	173.5	356.5	250.1
	Accidents	49.7	37.7	91.7	-
	Stroke	39.5	37.7	61.1	-
	Diabetes Mellitus	38.2	32.7	-	-
	Chronic Lower Respiratory Diseases	*	*	71.3	-
65-74 years	Cancer	618.1	558.4	716.0	968.8
	Heart Disease	419.8	383.1	895.0	575.2
	Chronic Lower Respiratory Diseases	97.9	178.1	390.6	-
	Stroke	92.0	62.0	130.2	-
	Diabetes Mellitus	71.0	*	*	-

		Harris County	Montgomery County	Liberty County	San Jacinto County
65-74 years	Septicemia	*	*	97.6	-
	Nephritis, Nephrotic Syndrome, and Nephrosis	*	62.0	-	-
75-84 years	Heart Disease	1,166.1	1,116.3	2,169.3	1,167.3
	Cancer	1,115.1	1,060.7	1,574.5	1,232.2
	Stroke	304.3	234.4	419.9	389.1
	Chronic Lower Respiratory Diseases	274.6	431.7	839.7	324.3
	Septicemia	173.5	*	-	-
	Alzheimer's Disease	*	148.2	524.8	-
85+ years	Heart Disease	3,459.7	3,399.8	5,864.2	3,535.4
	Cancer	1,586.9	2,026.5	1,131.7	1,767.7
	Stroke	957.0	653.2	823.0	-
	Chronic Lower Respiratory Diseases	627.5	954.6	*	-
	Alzheimer's Disease	574.2	535.9	1,851.9	-
	Nephritis, Nephrotic Syndrome, and Nephrosis	*	*	720.2	-

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

**NOTE:** Asterisk (\*) denotes insufficient sample size

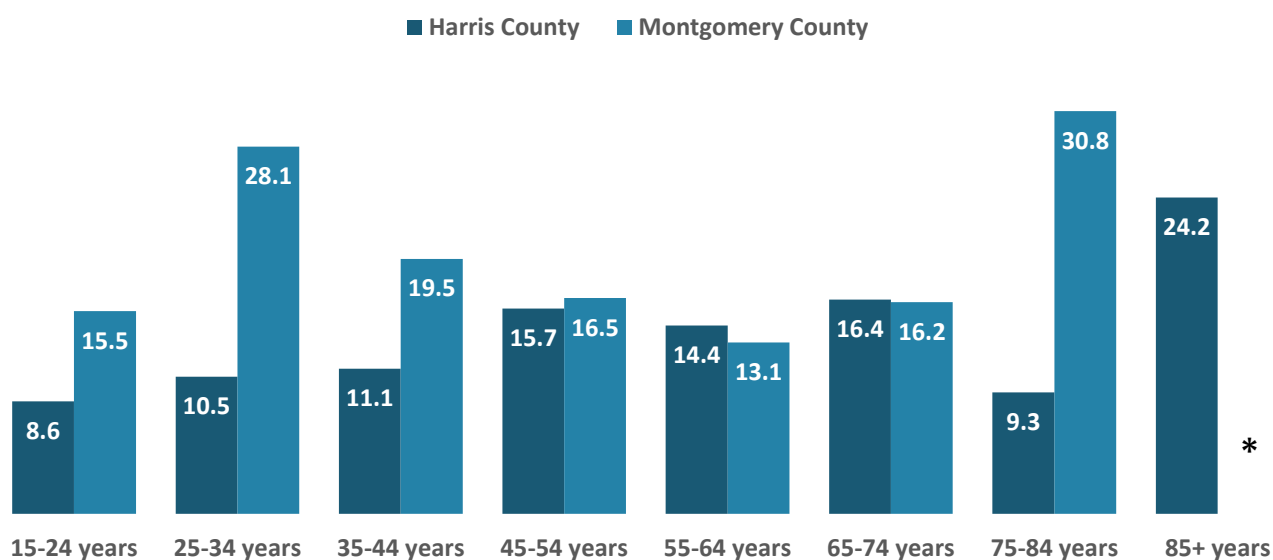
**NOTE:** Dash (-) denotes unreliable rate

**NOTE:** "All Other Diseases" not reported in leading causes

Suicide rates in Montgomery County were higher than in Harris County, across all ages except 65-74 years. Suicide is more common among people over the age of 45. In both counties, the suicide rate for seniors was the highest of that across all age groups (FIGURE 17). The highest suicide rate in

Montgomery County was 30.8 per 100,000 population of residents among aged 75 to 84 years compared to 9.3 per 100,000 population in Harris County. Data for Liberty County and San Jacinto County were unavailable due to unreliable rates.

**FIGURE 17. 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:** Data for Liberty and San Jacinto Counties not reported due to unreliable rates

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



## Chronic Diseases and Related Risk Factors

Diet and exercise are risk factors for many chronic diseases. Access to healthy food and opportunities for physical activity depend on not only individual choices but also on the built environment in which we live, the economic resources we have access to, and the larger social context in which we operate. Risk factors for chronic diseases like overweight and obesity, heart disease, diabetes, cancer, and asthma include diet and exercise as well as genetics and stress. The prevention and management of chronic diseases is important for preventing disability and death, and also for maintaining a high quality of life.

### Access to Healthy Food and Healthy Eating

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

***“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.”***

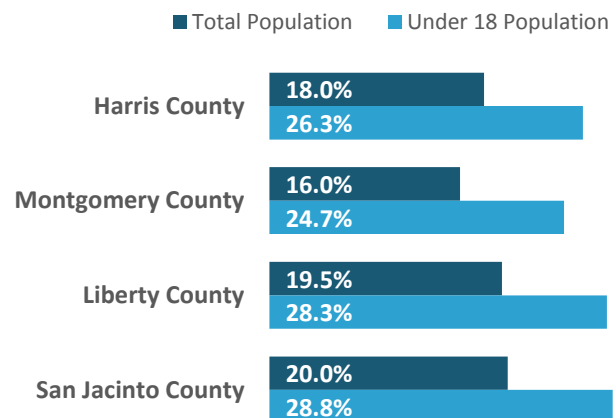
**Key informant interviewee**

### Food Access

Rates of food insecurity are similar for adults across all three counties served by MH Surgical Hospital Kingwood, and children are more likely to be food insecure than adults. Focus group participants and key informants identified food insecurity in children to be an issue affecting the community. In all four counties served by MH Surgical Hospital Kingwood, a quarter or more of all children (i.e., those under age 18) were considered to be food insecure (FIGURE 18). Several respondents reported that they live in food deserts, and explained that they face challenges accessing food, especially food that is healthy. For example, a key informant interviewee discussed limited access to healthy food choices explaining that, *“If you live in a food desert then it’s hard to obtain food, even if healthy options are available elsewhere. You see a lot of corner stores with unhealthy food.”*

Among households in Liberty County, nearly 19% of families (or nearly 1 in 5) received benefits from the Supplemental Nutrition Assistance Program (SNAP), the program providing nutritional assistance for low-income families (FIGURE 19). In Harris County, in 2013, 12.6% of families received SNAP benefits, while the percentage was lower in Montgomery (7.5%). Data for San Jacinto County were unavailable.

**FIGURE 18. 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 19. PERCENT HOUSEHOLDS RECEIVING SNAP BENEFITS, BY COUNTY, 2009-2013**



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

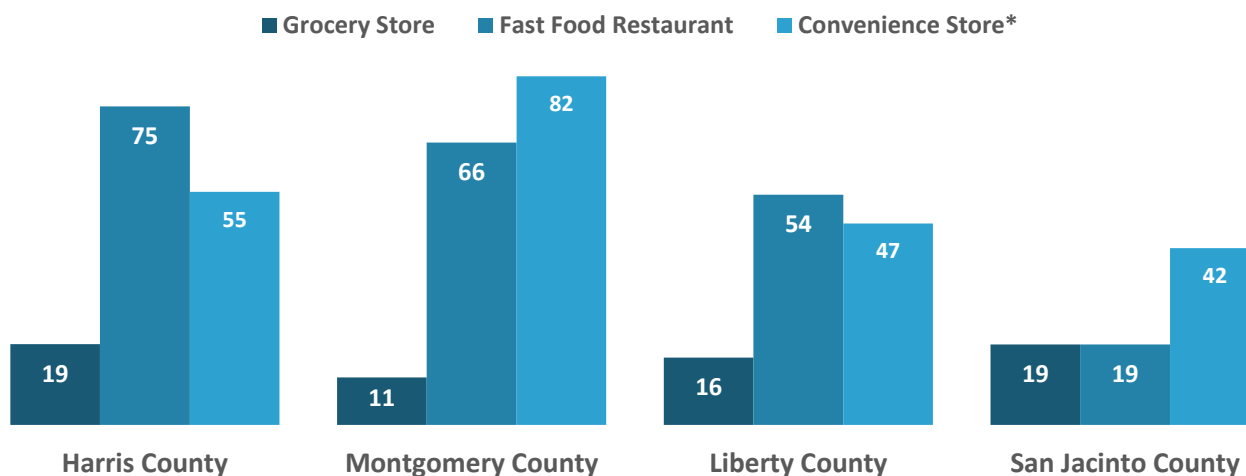
**NOTE:** Data not available for San Jacinto County

According to the U.S. Department of Agriculture, in 2013 resident access to grocery stores ranged across the four counties. The number of grocery stores to residents ranged from 11 per 100,000 population in Montgomery County to 19 per 100,000 population in Harris and San Jacinto

Counties (FIGURE 20). Montgomery County residents in 2012 had the highest access to convenience stores (82 convenience stores per 100,000 population) compared to 55 convenience stores in Harris County, 47 in Liberty County, and 42 in San Jacinto County per 100,000 population. There were far fewer fast food restaurants in San Jacinto County (19 per 100,000 population) compared to the other counties. The prevalence of fast, convenient food in the region overall was echoed by community residents and key informants such as

one who stated, “We are full of chain restaurants and fast food in this area.” Montgomery County low-income residents had higher access to farmer’s markets (21.1%) than those in Harris County (13.7%) or San Jacinto County (5.1%) (data not shown). Among zip codes corresponding to MH Surgical Hospital Kingwood’s community, zip code 77338 had the highest number of calls (1,837) to the Harris County United Way Helpline related to food in 2014.

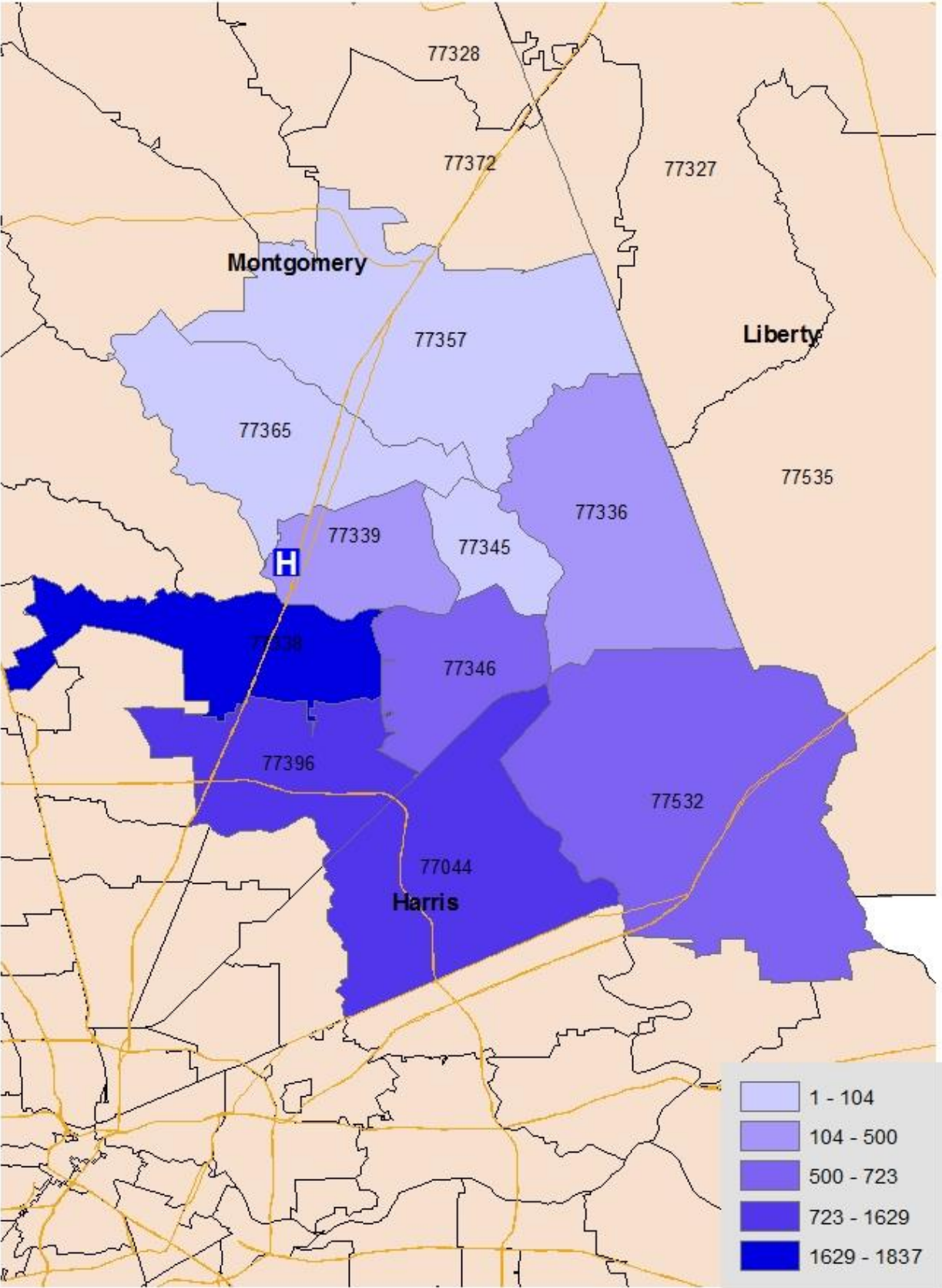
**FIGURE 20. ACCESS TO GROCERY STORES, FAST FOOD RESTAURANTS, AND CONVENIENCE STORES, PER 100,000 POPULATION, BY COUNTY, 2013**



**DATA SOURCE:** U.S. 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 21. NUMBER OF FOOD-RELATED CALLS TO 2-1-1 UNITED WAY HELPLINE IN HARRIS COUNTY, BY ZIP CODE, 2014



DATA SOURCE: United Way of Harris County, 2014

## Eating Behaviors

Eating healthy food promotes overall health. Focus group participants and key informant interviewees described healthy eating as a difficult habit to master. Poor access to healthy foods, the low cost of fast food, cultural food norms, and poor education about nutrition were cited across all informants as being top drivers of unhealthy eating habits. Key informants pointed to the lack of grocery stores in poor communities as contributing to unhealthy eating habits. As one informant shared, *“You see a lot of corner stores with unhealthy food. We don’t have a good transportation system in Houston, so it makes it a big deal trying to access somewhere else in the city.”* The low cost of and easy access to unhealthy, fast food was frequently cited as a contributor to unhealthy eating habits. Several respondents reported that this is a particular concern for lower income residents. As one interviewee explained, *“there are folks who are real concerned about where their next meal comes from versus what the food is.”* Other key informants cited cultural factors as affecting whether people make healthy food choices. As one community leader pointed out, *“Southern cuisine isn’t healthy. Our food is fried and made with lots of butter.”* Another informant echoed this saying, *“We have great food with huge portions.”* Key informants also reported that education is a driver of healthy eating habits. The lack of knowledge about healthy eating and how to prepare healthy foods emerged as a key theme across several focus groups and interviewees. As one person stated, *“More and more people don’t know how to make food. People depend on pre-made food or fast food.”*

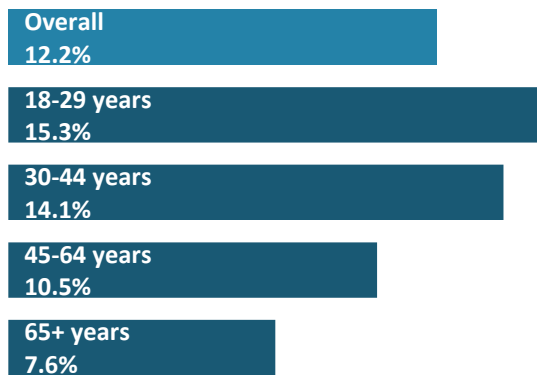
***“Unhealthy food is more readily available and cheaper; it is too demanding to plan out healthy meals when working three jobs and stretching a budget.”***

**Key informant interviewee**

Surveys in Harris County reveal that only 12.2% of Harris County adults indicated that they ate fruits and vegetables five or more times per day (similar to the government recommendation) (FIGURE 22).

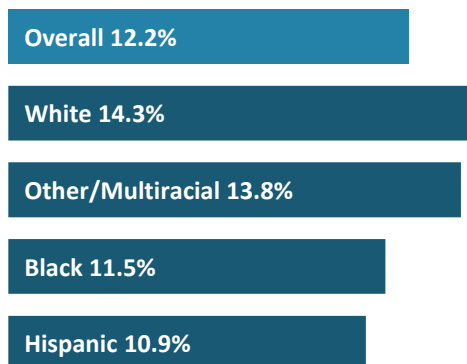
Adults who were younger (18-29 years old) were the highest percentage of respondents meeting this recommendation. When examining responses by race and ethnicity, 14.3% of Whites indicated this eating behavior compared to 11.5% of Black, non-Hispanics and 10.9% of Hispanics (FIGURE 23). Lower income Harris County adults ate fewer fruits and vegetables than residents with higher median household incomes (FIGURE 24).

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



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2013

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



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2013

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



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2013

#### Physical Activity

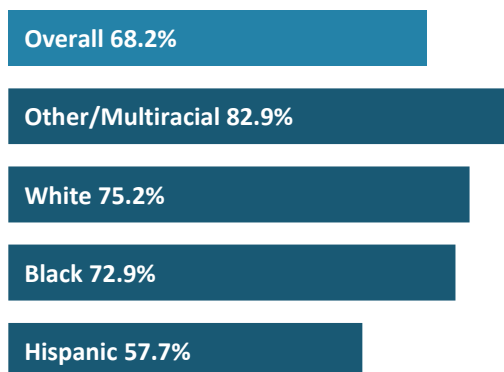
Another important risk factor for maintaining a healthy weight and reducing one's risk of cardiovascular disease is physical activity. When asked about opportunities for physical activity in the region, focus group members and interviewees shared several perspectives. Some reported good access to parks and other opportunities for physical activity. However, some stated that these were not equally distributed across the region. Others commented on the region's lack of infrastructure such as sidewalks and bike routes. FIGURE 26 shows the location of parks in the Greater Houston area. Another factor affecting outdoor physical activity, according to some residents, is Texas' hot and dry climate. Given this, some residents mentioned that the region lacks low-cost opportunities for indoor physical activity such as gyms, community centers, and youth centers. Time for exercise was also identified as a substantial constraint for residents. As one informant stated, "[People] spend so much time commuting that by the time they get home they don't want to go somewhere to exercise."

More than two thirds (68.2%) of adults surveyed in Harris County indicated that they had undertaken physical activity in the 30 days before responding to the BRFSS survey (FIGURE 25). When examining results by race and ethnicity, Hispanics were the least likely to report this, with 57.7% saying they had participated in any physical activity in the past month.

*"We have a fairly good park and recreation system, but not so much in lower income neighborhoods."*

**Key informant interviewee**

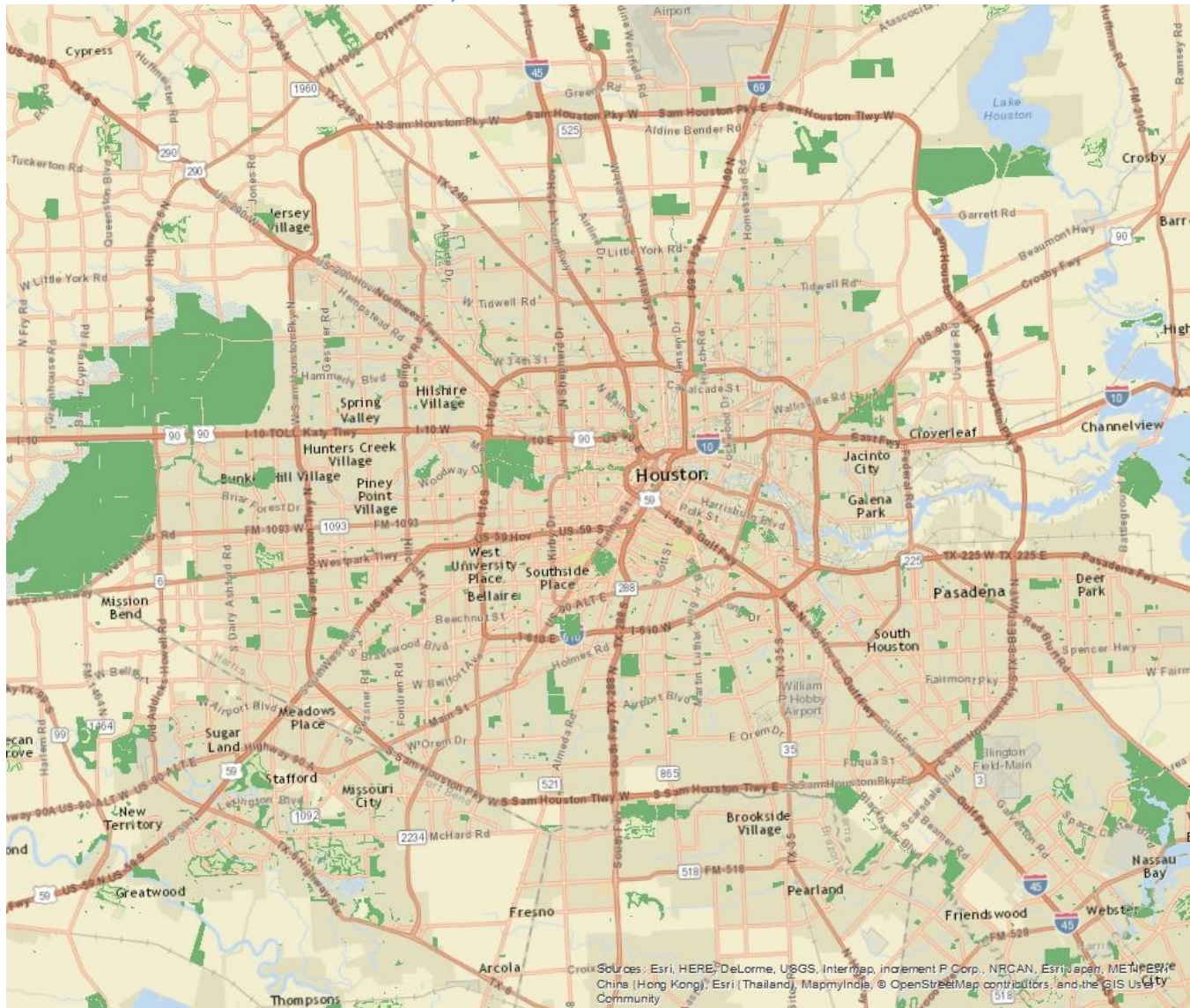
**FIGURE 25. PERCENT ADULTS SELF-REPORTED TO HAVE PARTICIPATED IN ANY PHYSICAL ACTIVITIES IN PAST MONTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013**



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2013



FIGURE 26. PARKS IN GREATER HOUSTON, 2013



DATA SOURCE: Houston Parks and Recreation Department, 2013

### Overweight and Obesity

Obesity is a major risk factor for poor cardiovascular health and increases the risk of death due to heart disease, diabetes, and stroke. The communities served by MH Surgical Hospital Kingwood are affected by obesity. Almost all focus group participants and key informant interviewees acknowledge overweight and obesity is a major issue in the community, alongside diabetes and heart disease. Obesity, as described by focus group participants and key informant interviewees, is driven by unhealthy eating habits and low levels of physical activity.

Several participants shared concerns about children being at high risk for obesity and the long-term impact of childhood obesity on children's ability to learn, their health as they grow older, and the costs

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

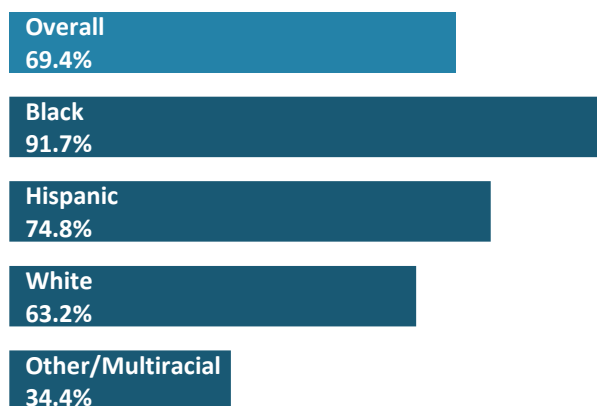
**Key informant interviewee**

to the healthcare system. As one key informant shared, "Childhood obesity has already been a problem but now we're seeing an increase in younger kids." Residents also expressed concern about obesity among children, such as one mother

who wondered, “Where are all the kids at the playground? Often we have it to ourselves. The mall is full, but the playground is empty.”

In 2013, the percentage of Harris County residents who reported that they were overweight or obese was 69.4%. Nine out of ten (91.7%) Black, non-Hispanic residents in Harris County were considered overweight or obese, according to self-reported height and weight responses (FIGURE 27).

**FIGURE 27. PERCENT ADULTS SELF-REPORTED TO BE OVERWEIGHT OR OBESE, HARRIS COUNTY, 2014**



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

### Diabetes

Diabetes is a life-long chronic illness that can cause premature death. According to the American Diabetes Association, care for diagnosed diabetes accounts for 1 in 5 health care dollars in the United States, a figure which has been rising over the last several years. Diabetes is an issue for many residents in communities served by MH Surgical Hospital Kingwood. The majority of focus group participants and key informants named diabetes (along with cancer and hypertension) as a top health issue in the region. Others noted that like obesity, diabetes is becoming increasingly prevalent in children. Informants talked about the unmet needs of diabetics, particularly due to lack of self-management and delaying care that can come with lack of health insurance or money for health care. One key informant reported, “You see a lot of cases with Type 2 diabetes. These people have more doctors than ever. Take multiple medications at a time. All of those things cost money.” Many informants discussed diabetes “running in families” as though diabetes is an expectation of life. As one informant explained, “We see people who expect to

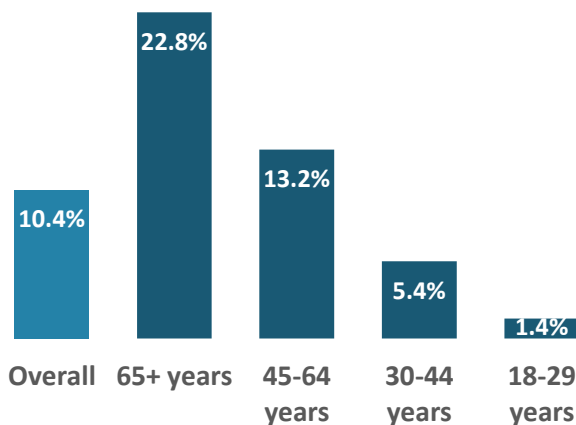
**“Everybody I know is on blood pressure medication.”**

**Senior focus group participant**

have diabetes because everyone in their family does.” This creates a burden on residents served by MH Surgical Hospital Kingwood.

In Harris County in 2014, 10.4% of adults self-reported to have been diagnosed with diabetes (FIGURE 28). Self-reported diabetes diagnosis was more likely to be reported in older age groups of Harris County residents, with 22.8% of persons aged 65 years or older self-reporting they had diabetes compared to 1.4% of persons aged 18 to 29 years. Black, non-Hispanic adults in Harris County self-reported a higher rate of diabetes diagnosis (15.2%) than persons self-identifying as Hispanic, White or other races and ethnicities (FIGURE 29). In 2013, Harris County saw 11.3 hospital admissions per 100,000 population for uncontrolled diabetes, while Montgomery County had 7.3 admissions per 100,000 population (data not shown). Data for Liberty County and San Jacinto County were unavailable due to small numbers of admissions.

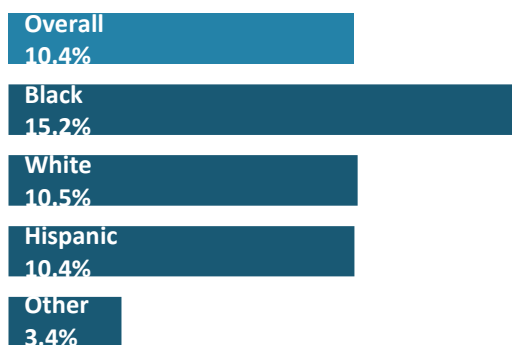
**FIGURE 28. PERCENT ADULTS SELF-REPORTED TO HAVE BEEN DIAGNOSED WITH DIABETES, BY AGE, HARRIS COUNTY, 2014**



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

**NOTE:** Excludes respondents who were diagnosed during pregnancy

**FIGURE 29. PERCENT ADULTS SELF-REPORTED TO HAVE BEEN DIAGNOSED WITH DIABETES, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014**



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

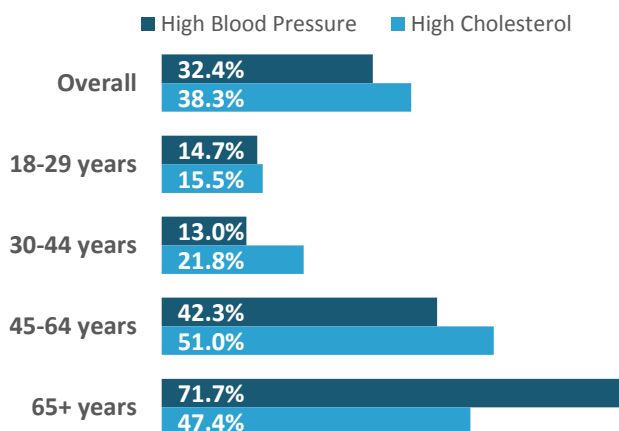
### **Heart Disease, Stroke, and Cardiovascular Risk Factors**

Hypertension (e.g., high blood pressure) is one of the major causes of stroke, and high cholesterol is a major risk factor for heart disease. Both hypertension and cholesterol are preventable conditions, but unhealthy lifestyle choices can play a major role in the development of these top two cardiovascular risk factors. Heart disease and stroke are among the top five leading causes of death both nationally and within this region. One focus group participant said many diseases affected her community, “*Especially heart disease...everybody has high blood pressure.*” Focus group participants named hypertension and heart disease as among the top issues affecting their community, especially among seniors and immigrants. As with diabetes, poor self-management and delayed care can have substantial negative consequences for patients and lack of education was seen as a factor contributing to heart disease risk. Some key informants expressed concern that heart disease and stroke occurs more in populations experiencing health care inequities and those with less access to healthy food and options for physical activity.

In Harris County in 2014, according to the Texas Behavioral risk Factor Surveillance System, 2.8% of adults self-reported having been diagnosed with angina or coronary heart disease (data not shown). Similarly, in 2014, 3.6% of adults in Harris County self-reported having a heart attack, and 3.8% of Harris County adults self-reported having a stroke (data not shown). Over a third of Harris County adults self-reported having high cholesterol (38.3%) and just under a third self-reported having high blood pressure (32.4%) (data not shown). Harris

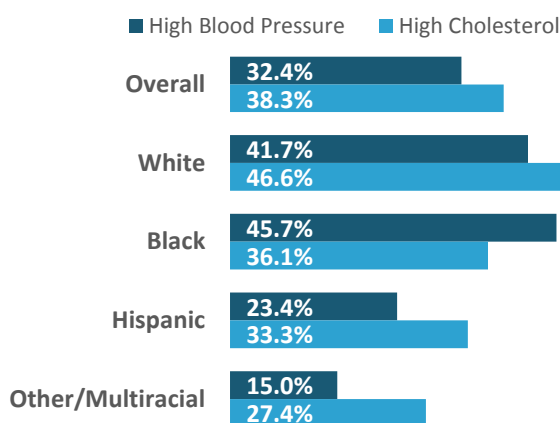
County residents over the age of 65 were disproportionately likely to report having high blood pressure (71.7%) than their younger counterparts (FIGURE 30). White Harris County residents had the highest self-reported rate of high cholesterol (46.6%) while Black, non-Hispanic Harris County residents had the highest self-reported rate of high blood pressure (45.7%) (FIGURE 31).

**FIGURE 30. PERCENT ADULTS SELF-REPORTED TO HAVE HAD HIGH BLOOD PRESSURE AND HIGH BLOOD CHOLESTEROL, BY AGE, HARRIS COUNTY, 2013**



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

**FIGURE 31. PERCENT ADULTS SELF-REPORTED TO HAVE HAD HIGH BLOOD PRESSURE AND HIGH BLOOD CHOLESTEROL, BY RACE AND ETHNICITY, HARRIS COUNTY, 2013**



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

### **Asthma**

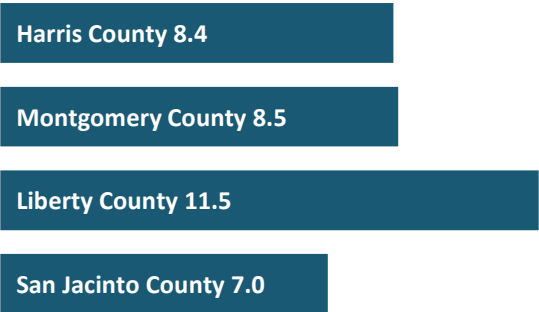
A few key informant interviewees described air quality as an area of concern for the community, particularly for people living in Houston. Several focus group members and interviewees reported



that asthma rates were high in the region, which was attributed to environmental quality and housing quality.

In 2013, 12.6% Texas adults self-reported having asthma at one point in their lifetime according to the Texas Behavioral Risk Factor Surveillance System. In Harris County, 4.6% of adult residents reported that they currently had asthma (data not shown). In 2012, adult hospital discharges for asthma were similar in both Montgomery County (8.5 per 10,000 population) and Harris County (8.4 per 10,000 population) and slightly lower in San Jacinto County (7.0 per 10,000) (FIGURE 32). The rate of discharges for asthma in Liberty County (11.5 per 10,000 population) was higher than for the other three counties. Among children in Harris County 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 10.2 per 10,000 children) (FIGURE 33).

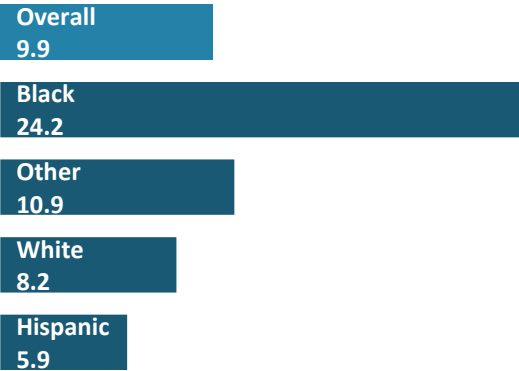
**FIGURE 32. AGE-ADJUSTED ASTHMA HOSPITAL DISCHARGE RATES PER 10,000 POPULATION, BY COUNTY, 2012**



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



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

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

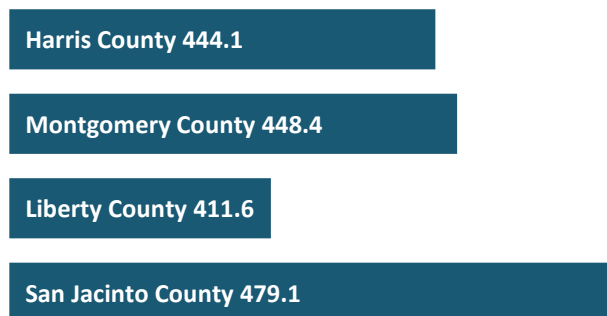
**Cancer**

Cancer is among the top two leading causes of death in the region. In some counties, cancer is the leading cause of death, while heart disease is number one in others. This trend is similar to what is seen nationally. Focus group participants and key informant interviewees described cancer as one of the top health conditions seen in their communities. A few informants expressed concern that people do not have access to or are aware of early screening and detection resources. A focus group participant said, “You may get cancer because you don’t get access to information or resources.”

Across the four counties served by MH Surgical Hospital Kingwood, San Jacinto County saw the highest incidence of cancer (479.1 per 100,000 population) while Liberty County saw the lowest (411.6 per 100,000 population) (FIGURE 34). However, Liberty County (at 208.4 per 100,000 population) and San Jacinto County (209.8 per 100,000 population) experienced higher cancer mortality rates than the other counties (Harris: 163.4 per 100,000 population and Montgomery: 164.8 per 100,000 population) (FIGURE 35). Cancer screening data is only available from Harris County. In a 2014 Behavioral Risk Factor Surveillance survey, 81.6% of women aged 40 years or older indicated

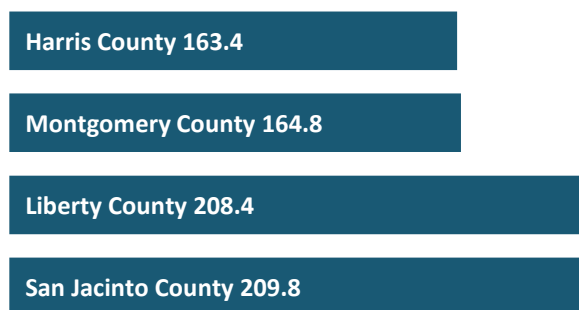
they had had a mammogram in the past two years while 70% of women indicated that they had had a Pap test to test in the past three years (FIGURE 36). Over two thirds (64.8%) of adults 50 years of age and older in Harris County self-reported having a colonoscopy or sigmoidoscopy.

**FIGURE 34. AGE-ADJUSTED INVASIVE CANCER INCIDENCE RATE PER 100,000 POPULATION, BY COUNTY, 2008-2012**



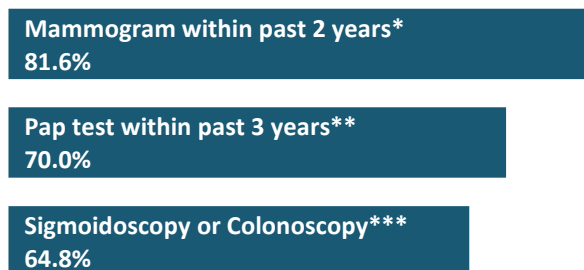
**DATA SOURCE:** Texas Cancer Registry, 2008-2012

**FIGURE 35. AGE-ADJUSTED CANCER MORTALITY RATE PER 100,000 POPULATION, BY COUNTY, 2008-2012**



**DATA SOURCE:** Texas Cancer Registry, 2008-2012

**FIGURE 36. PERCENT ADULTS SELF-REPORTED CANCER SCREENING, HARRIS COUNTY, 2014**



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

\* women aged 40 years old and over; \*\* women aged 18 years and over; \*\*\* adults aged 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 Surgical Hospital Kingwood.

### Mental Health

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

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

While more affluent residents were seen as having greater access to mental health services, low-income residents face substantial challenges including transportation and lack of insurance and resources to pay for services out of pocket. Stigma about mental illness was mentioned as a substantial barrier to identifying mental health concerns and seeking treatment among all population groups. As one informant explained, *"People may not seek services because of the stigma or what they perceive is normal in their own families and may not realize that it's correctable and there are services available."* Respondents saw a need to destigmatize mental health illness.

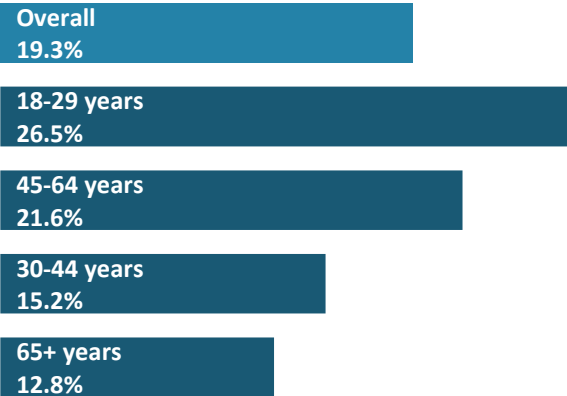
According to the Texas Behavioral Risk Factor Surveillance System, in 2014 19.3% of adults in Harris County self-reported having five or more poor mental health days during the past month (FIGURE 37). Self-report of having five or more days of poor mental health was highest among residents aged 18 to 29 (26.5%) and Black, non-Hispanic residents (24.2%) in Harris County (FIGURE 38).

FIGURE 37. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL

*“Our schools and counselors really do see a very significant increase in the number of behavioral health concerns.”*

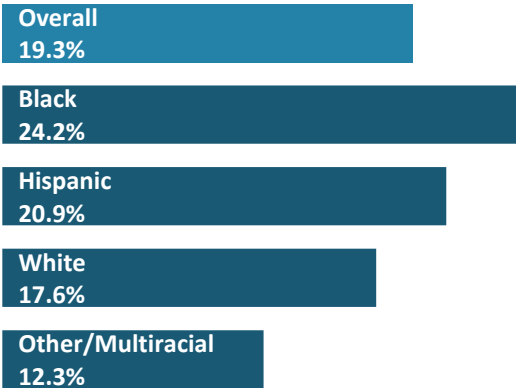
**Key informant interviewee**

HEALTH IN THE PASTE MONTH, BY AGE, HARRIS COUNTY, 2014



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014  
**NOTE:** Data available only for Harris County

FIGURE 38. PERCENT ADULTS SELF-REPORTED HAVE HAD FIVE OR MORE DAYS OF POOR MENTAL HEALTH IN THE PAST MONTH, BY RACE AND ETHNICITY, HARRIS COUNTY, 2014



**DATA SOURCE:** Texas Behavioral Risk Factor Surveillance System, 2014  
**NOTE:** Data available only for Harris County

Focus group participants and key informants reported that children and youth are at high risk for mental health problems, and that the response to their needs is inadequate. Several respondents observed that increasingly younger children are struggling with serious emotional illness. Among older youth, stress associated with academic pressures was identified as a concern. As one youth focus group member shared, *“Stress is the biggest thing...I would definitely say stress is huge.”* While mental health services in general were seen as lacking in the region, services for children and youth were reported to be particularly scarce. The consequence, as one informant shared, is that *“Too many cases are undiagnosed for too long.”*

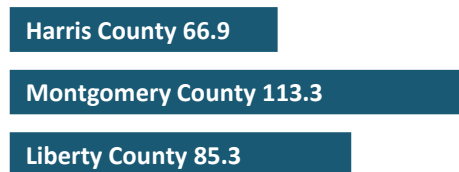
### Substance Use and Abuse

Substance use and abuse affects the physical and mental health of its recipients, their families, and the wider community. Stakeholders raised substance abuse as being an important health issue in the community by many interview and focus group participants. Neither focus group participants nor key informant interviewees identified opioid addiction as a major health issue affecting the MH Surgical Hospital Kingwood community.

Alcohol abuse—among both adults and teens—was reported to be a concern for the region. Reasons cited for alcohol abuse were stress and social norms. The availability of alcohol was also noted. Perspectives on the prevalence of smoking varied across respondents. Some respondents reported that it was not a key health issue for the region. Others, however, reported higher rates of smoking among seniors and some demographic groups. Smoking and vaping (e.g., inhaling and exhaling the vapor produced by an electronic cigarette or similar device) was reported to be less prevalent among youth. As with mental health services, residents reported that the need for substance use services—both prevention and treatment—exceeds the available supply. Barriers to addressing substance use issues are similar to those for mental health concerns and include stigma, lack of services, and lack of awareness about the dangers of substance use. As one informant explained, *“No one wants to talk about behavioral health or substance abuse because of the stigma.”*

According to the Texas Behavioral Risk Factor Surveillance System, in 2014 13.7% of Harris County adults self-reported binge drinking in the past month, and 13.6% of adults self-reported being current smokers. Only 1.9% of Harris County adults self-reported to have drunk alcohol and drove in the past month (data not shown). Montgomery County had the highest rates of non-fatal drinking-under-the-influence (DUI) motor vehicle accidents in the past month (113.3 per 100,000 population), and Harris County had the lowest rate (66.9 per 100,000 population) according to the Texas Department of Transportation (data for San Jacinto County not available) (FIGURE 39).

**FIGURE 39. 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

**NOTE:** Data not available for San Jacinto County

## Communicable Diseases

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

Focus group participants and key informants had few concerns or comments about communicable disease and their concerns varied. Some informants reported concern about parents not getting their children vaccinated against diseases such as measles, which they attributed to continuing misinformation about vaccines. One focus group participant said she was concerned 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 is lacking in some communities and perceive a lack of resources in low-income areas, contributing to disparate levels of education.

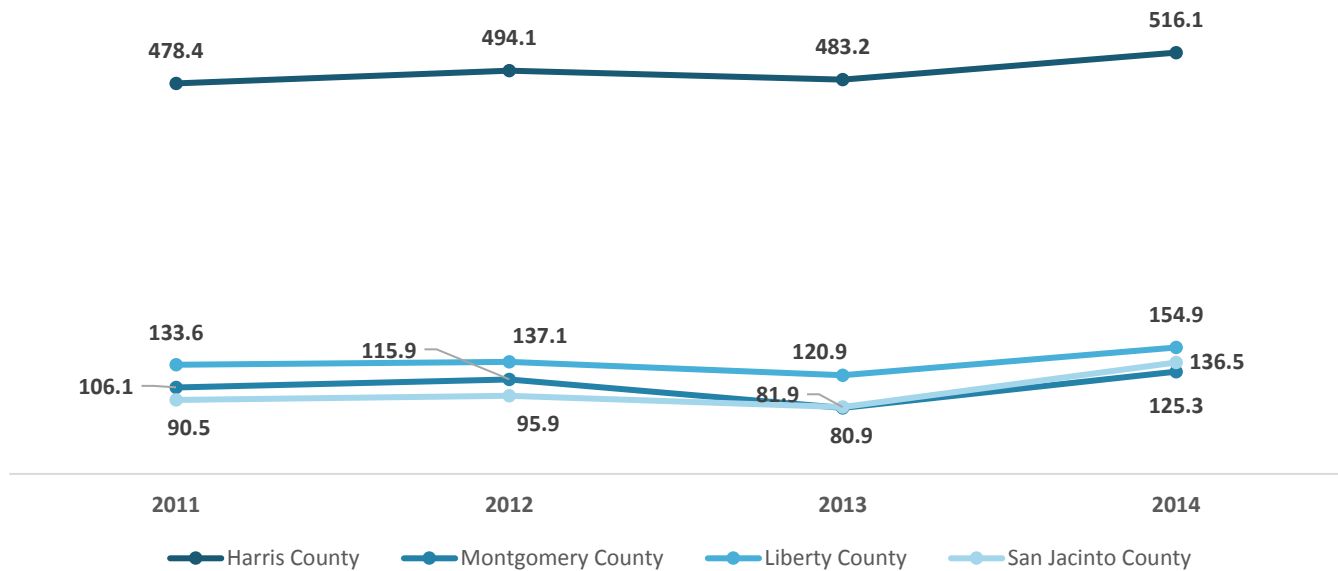
***“We have an international airport...This makes us vulnerable to communicable infectious diseases.”***

**Key informant interviewee**

## HIV

Harris County (516.1 per 100,000 population) experienced the highest HIV rate in the region in 2014, while Montgomery County experienced the lowest (125.3 per 100,000 population) (FIGURE 40). HIV rates in all four counties increased from 2011 to 2014.

**FIGURE 40. RESIDENTS LIVING WITH HIV RATE PER 100,000 POPULATION, BY COUNTY, 2011-2014**



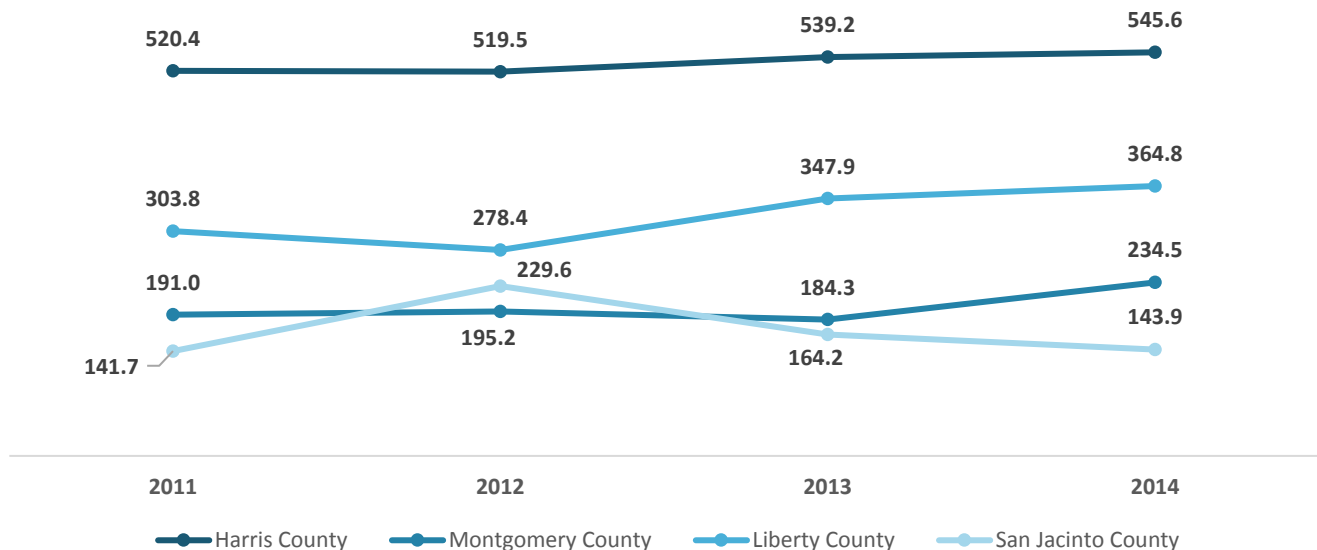
**DATA SOURCE:** Texas Department of State Health Services, Texas HIV Surveillance Report, 2011, 2012, 2013, and 2014

#### Other Sexually-Transmitted Diseases

Rates of sexually transmitted diseases (STDs)—chlamydia, gonorrhea, and syphilis—were higher in Harris County compared to the other three counties in 2014. From 2011 to 2014, chlamydia and

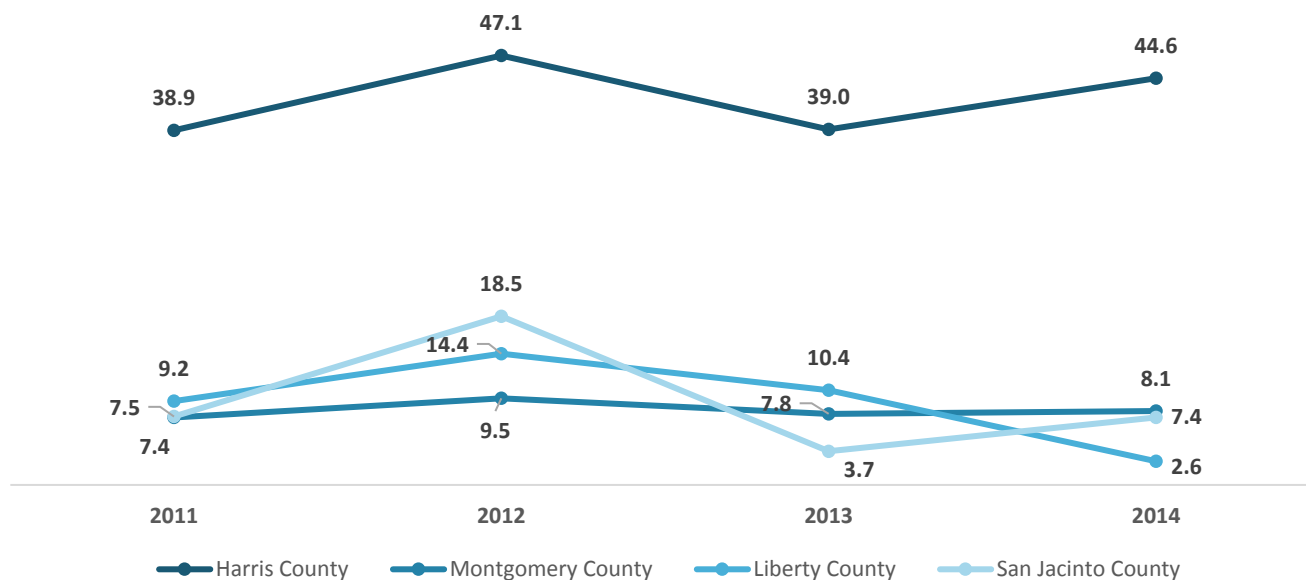
gonorrhea case rates increased in all four counties (FIGURE 41 and FIGURE 43). Syphilis case rates increased in Harris and Montgomery Counties but decreased in Liberty and San Jacinto Counties from 2011 to 2014 (FIGURE 42).

**FIGURE 41. CHLAMYDIA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014**



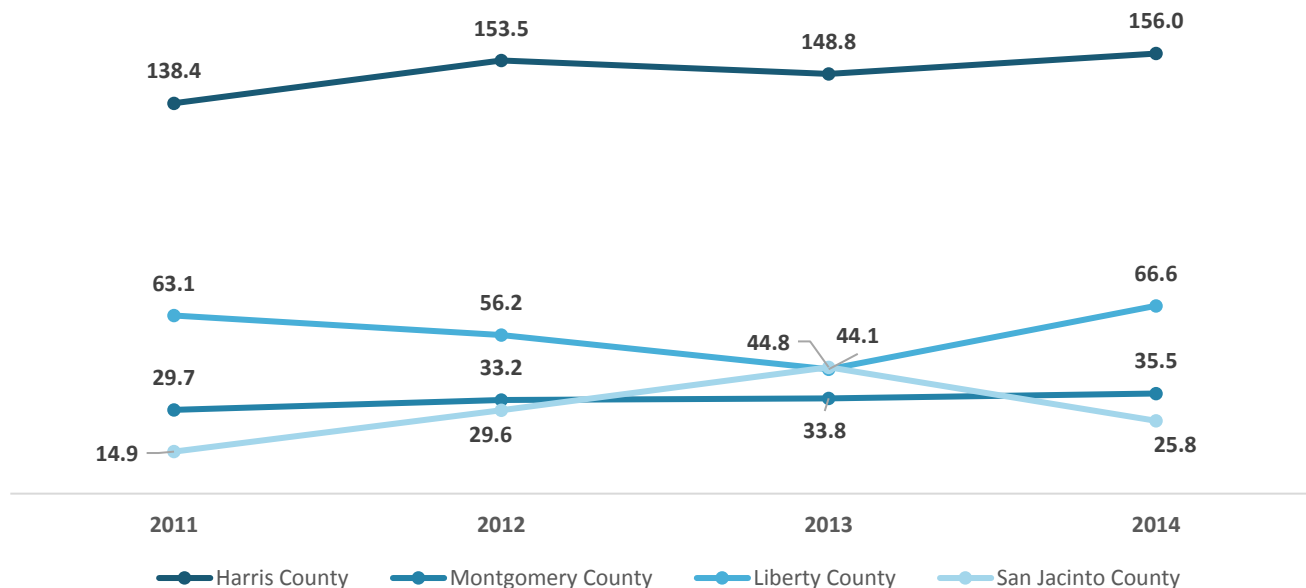
**DATA SOURCE:** Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014

FIGURE 42. 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 43. GONORRHEA CASE RATES PER 100,000 POPULATION, BY COUNTY, 2011-2014



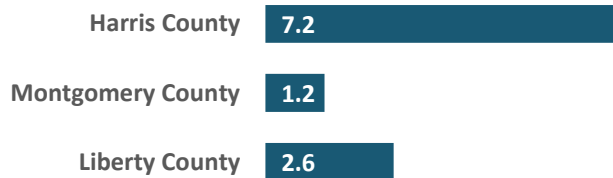
DATA SOURCE: Texas Department of State Health Services, TB/HIV/STD Epidemiology and Surveillance Branch, Texas STD Surveillance Report, 2014



### Tuberculosis

Harris County saw the highest tuberculosis rate in the area, with 7.2 cases per 100,000 population. The rate of tuberculosis in Harris County was over five times the rate in Montgomery County (1.2 per 100,000 population) and over twice as high as in Liberty County (2.6 per 100,000 population) (FIGURE 44).

**FIGURE 44. TUBERCULOSIS CASE RATE PER 100,000 POPULATION, BY COUNTY, 2014**



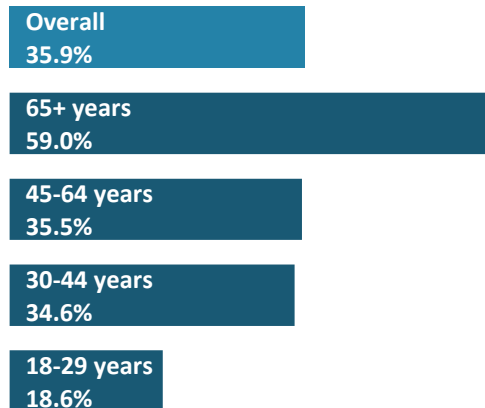
**DATA SOURCE:** Texas Department of State Health Services, TB-HIV-STD and Viral Hepatitis Unit, TB Counts and Rates, 2014

**NOTE:** Rate for San Jacinto County: 0.0 cases per 100,000 population

### Influenza

Data on influenza rates is only available for Harris County. In 2014, 35.9% of adults reported having had a seasonal flu shot or vaccine via nose spray, according to the Texas Behavioral Risk Factor Surveillance System. As shown in FIGURE 45, residents aged 65 years or older were disproportionately more likely to have received a flu shot (59.0%) than other age groups.

**FIGURE 45. PERCENT ADULTS SELF-REPORTED TO HAVE HAD SEASONAL FLU SHOT OR SEASONAL FLU VACCINE VIA NOSE SPRAY, BY AGE AND COUNTY, 2014**



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

## Reproductive and Maternal Health

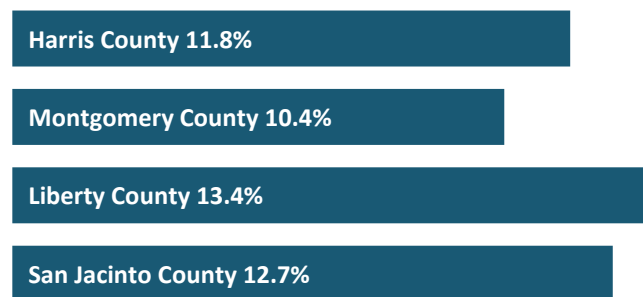
Good reproductive and maternal health provides a stronger foundation for newborns and children to have a more positive health trajectory across their lifespans. This section presents information about birth outcomes and teen pregnancy in the communities served by MH Surgical Hospital Kingwood.

### Birth Outcomes

Approximately one in ten babies born in the four counties were born premature, meaning born before 37 weeks gestation, in 2013 (FIGURE 46). Liberty County saw the highest proportion of premature births (13.4%). The proportion of babies born with low birthweight was higher in Harris County (8.6%) and Liberty County (8.2%) compared to San Jacinto County (7.7%) and Montgomery County (6.6%). The proportion of babies born with low birthweight (less than 2,500 grams) varied by race. In Harris, Montgomery, and San Jacinto Counties, Black, non-Hispanic babies were far more

likely to be born low birthweight than babies of other races and ethnicities (FIGURE 47).

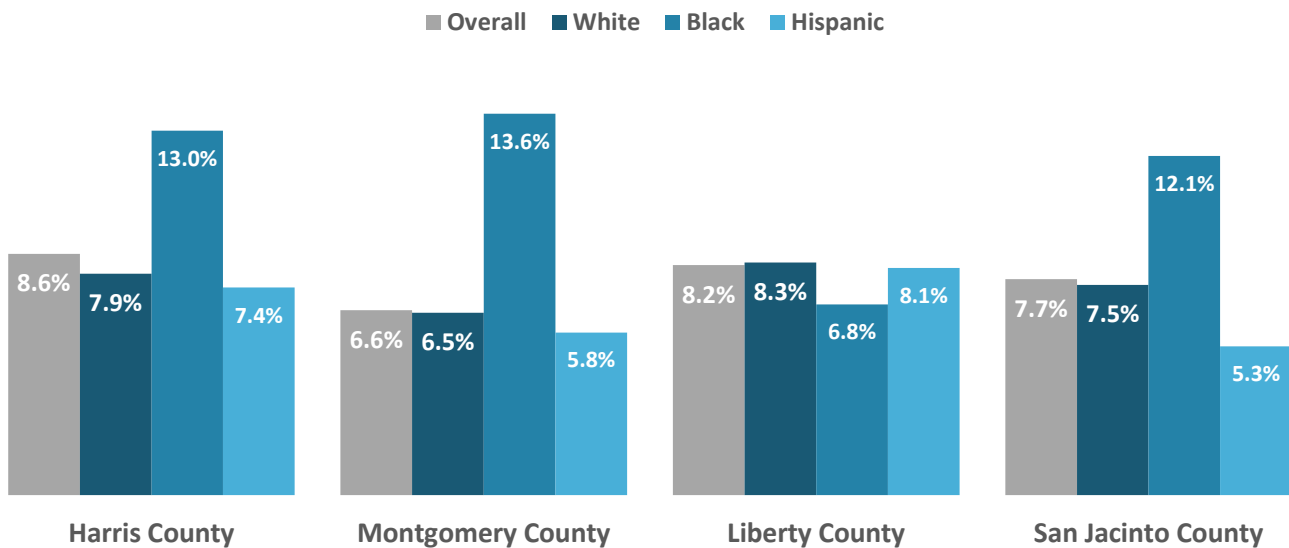
**FIGURE 46. PERCENT PREMATURE BIRTHS, BY COUNTY**



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

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

**FIGURE 47. PERCENT LOW BIRTH WEIGHT INFANTS, OVERALL AND BY RACE AND ETHNICITY, BY COUNTY, 2013**



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

**NOTE:** White includes Other and Unknown race and ethnicity

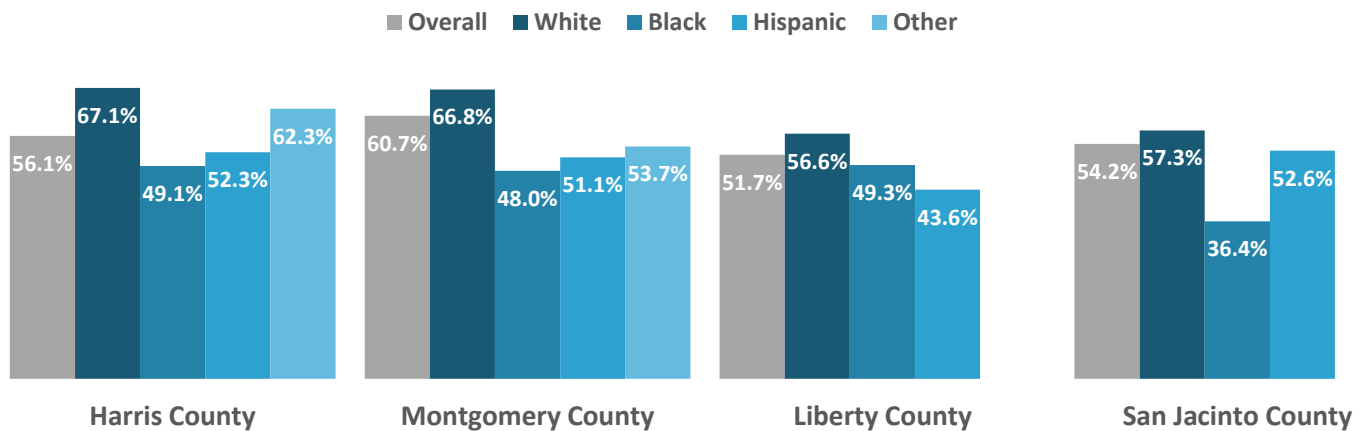
**NOTE:** Low birth weight is defined as under 2,500 grams

### Prenatal Care

According to the Texas Department of State Health Services, 56.1% of Harris County live births, 60.7% of Montgomery County live births, 51.7% of Liberty County live births, and 54.2% of San Jacinto County live births occurred to mothers who received prenatal care in their first trimester. Rates of first trimester prenatal care in all counties were highest for White, non-Hispanic mothers (FIGURE 48). In Liberty County, the rate of first trimester prenatal care was lowest for Hispanic mothers (43.6%). In Harris, Montgomery, and San Jacinto Counties, rates of first trimester prenatal care were lowest for Black, non-Hispanic mothers

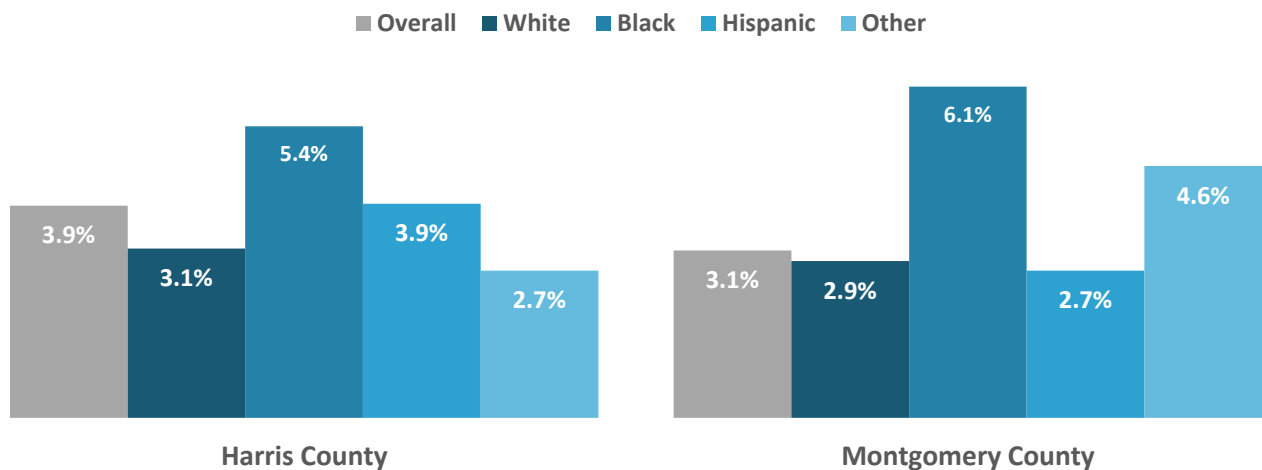
(49.1%, 48.0%, and 43.6% respectively). Rates of receiving no prenatal care were 3.1% and 3.9% for Montgomery and Harris County mothers, respectively (FIGURE 49). (Data on receiving no prenatal care was unavailable for Liberty and San Jacinto Counties.) Rates of receiving no prenatal care in both counties were highest for Black, non-Hispanic mothers (6.1% in Montgomery County and 5.4% in Harris County). In Montgomery County, the rate of receiving no prenatal care was lowest for Hispanic mothers (2.7%); in Harris County, the rate of receiving no prenatal care was lowest for mothers of Other race and ethnicity (2.7%).

**FIGURE 48. 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 49. 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

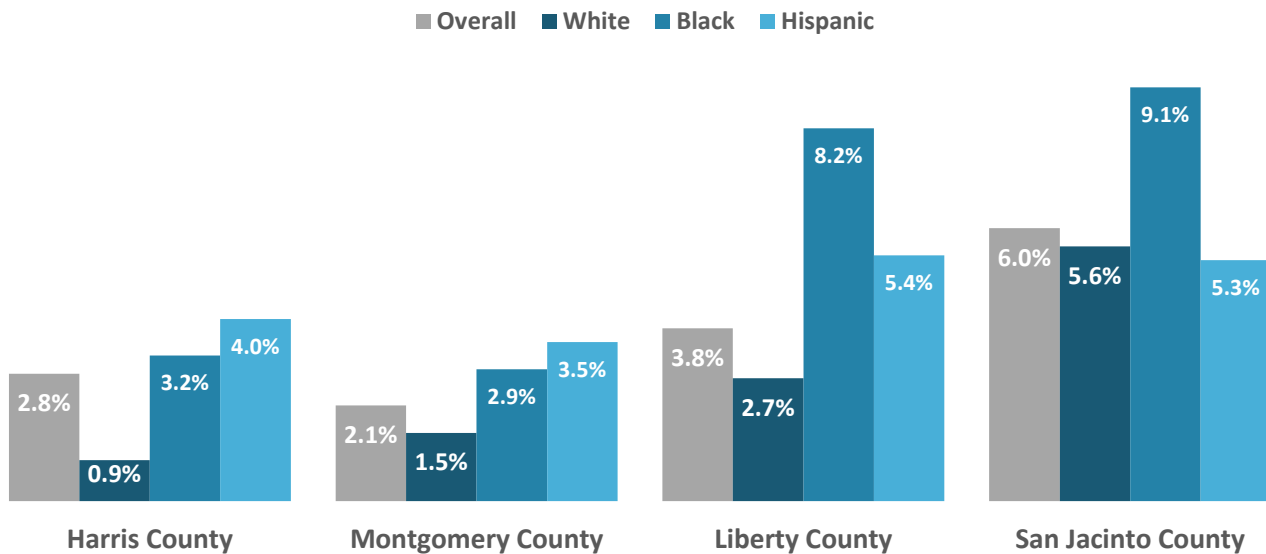
**NOTE:** Data insufficient to report for Liberty and San Jacinto Counties

### 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 four counties served by MH Surgical Hospital Kingwood, San Jacinto had the highest rate of teen births (6.0%) and Montgomery had the lowest rate of teen births (2.1%) (FIGURE 50). Teen births rates

varied by race and ethnicity. Black, non-Hispanic teen mothers in San Jacinto County (9.1%) had the highest birth rate. Births to Hispanic and Black, non-Hispanic teen mothers were higher than those to White mothers in Harris, Montgomery, and Liberty Counties. In San Jacinto County, the proportion of births to White and Hispanic teen mothers were similar, while births to Black, non-Hispanic teen mothers was far higher.

**FIGURE 50. PERCENT BIRTHS TO TEENAGED MOTHERS AGE 17 YEARS OLD AND UNDER, BY COUNTY, 2013**



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

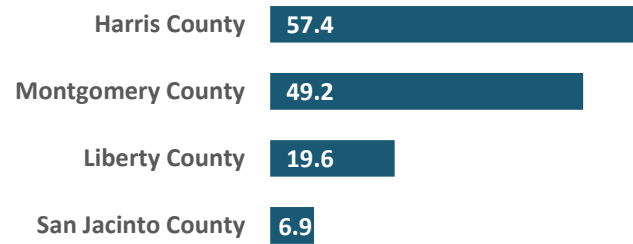
**NOTE:** White includes Other and Unknown race and ethnicity

## Oral Health

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

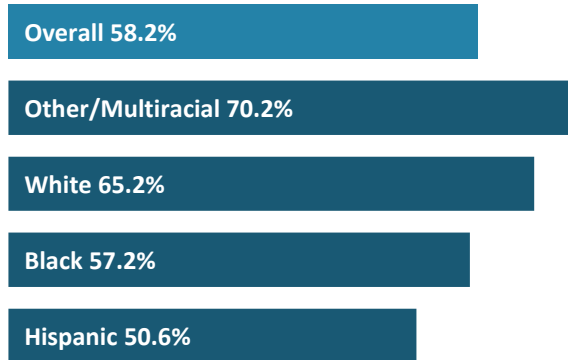
Across the four counties served by MH Surgical Hospital Kingwood, Harris County had the highest number of dentists (57.4 per 100,000 population) and San Jacinto County had the lowest number of dentists (6.9 per 100,000 population) (FIGURE 51). According to the Texas Behavioral Risk Factor Surveillance System, 58.2% of adults in Harris County in 2014 self-reported having visited a dentist or dental clinic within the past year for any reason (FIGURE 52). Hispanic adults in Harris County reported the lower rates of annual dental visitation (50.6%) than adults of other races or ethnicities. Adults with higher education levels (i.e., more than a high school education) were more likely to have received dental care in the past year in Harris County (FIGURE 53). Similarly, adults with higher incomes were more likely to have received dental care (FIGURE 54).

**FIGURE 51. NUMBER OF DENTISTS PER 100,000 POPULATION, BY COUNTY, 2014**



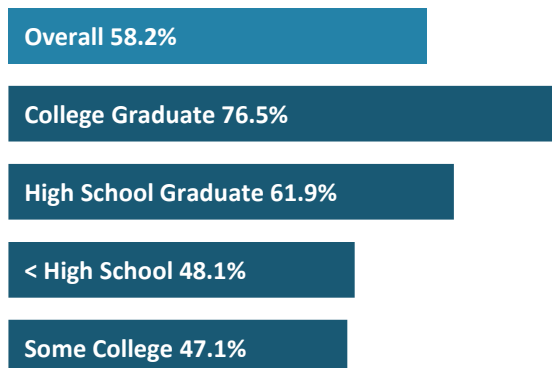
**DATA SOURCE:** Texas Medical Board, as cited by Texas Center for Health Statistics, 2014

**FIGURE 52. 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 53. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY EDUCATION, HARRIS COUNTY, 2014**



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

FIGURE 54. PERCENT ADULTS SELF-REPORTED TO HAVE VISITED DENTIST OR DENTAL CLINIC WITHIN PAST YEAR FOR ANY REASON, BY INCOME, HARRIS COUNTY, 2014



DATA SOURCE: Texas Behavioral Risk Factor Surveillance System, 2014



## HEALTH CARE ACCESS AND UTILIZATION

### Health Insurance

Health insurance is a predictor of access to health care services and overall population health. While some interview and focus group participants stated that community members have access to health insurance, others noted substantial gaps. For example, focus group participants from low-income areas reported frustration regarding this lack of health insurance. As one member of a focus group shared, *“You work 30 plus years and retire, now you have no insurance; they know you don’t have insurance and a whistle goes off... After taking care of people all your life, you struggle.”* Others reported that despite the Affordable Care Act (ACA), the number of uninsured in the region was high. One reason for this, according to respondents, is that Texas has not adopted Medicaid expansion, which leaves a large number of working poor uninsured and undocumented immigrants with no access to health insurance. Additionally, respondents reported that the cost of insurance is too high for some to afford. Lack of insurance and underinsurance has a substantial negative impact on health, according to informants, because people will not seek preventative care. As one interviewee shared, *“When people are uninsured, people are less likely to be proactive about health.”*

Another challenge cited by informants has been patients’ lack of understanding about what is covered by different insurance products and

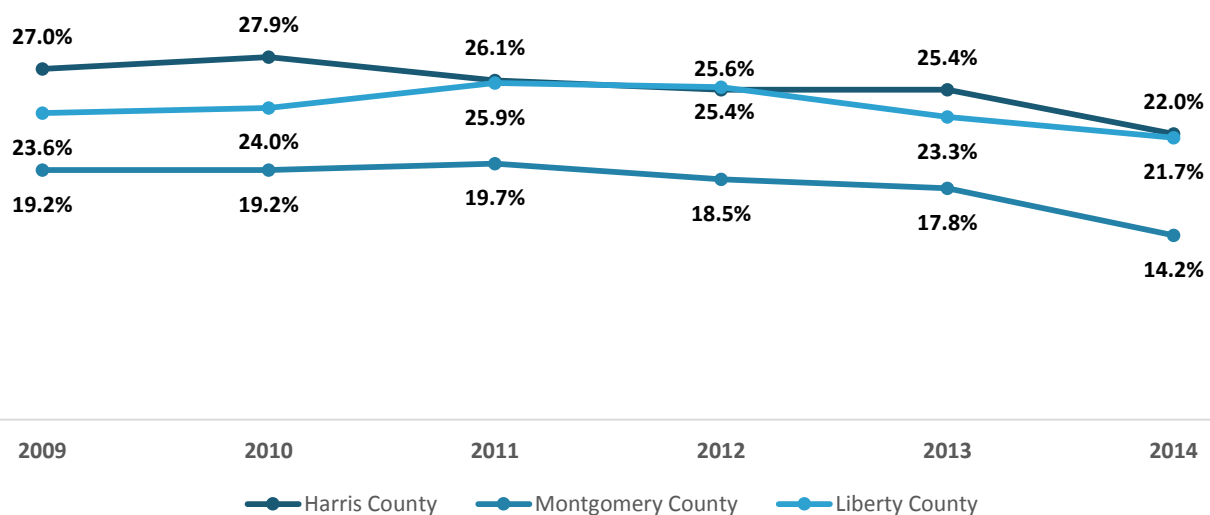
navigating their health insurance. Residents in focus groups expressed frustration when trying to understand co-pays and deductibles, in and out of network providers, services covered, and billing statements. This is especially challenging, respondents reported, for those who do not speak English or who have lower literacy levels as well as those who have never had insurance coverage. They stressed the importance of persistence, and a need to be proactive. As one focus group member summed up, *“[Insurance is very hard to understand] There are so many places and points of the process where it can go wrong.”*

***“Some people can’t afford insurance. Even though it’s cheap, it’s still not affordable.”***

**Key informant interviewee**

As shown in FIGURE 55, uninsurance rates decreased for Harris, San Jacinto, and Montgomery counties, but not Liberty County, following the passage of the Affordable Care Act in 2010. In 2010-2014, Harris County had the highest proportion of uninsured individuals (25.2%) while Montgomery had the lowest percent (17.9%).

**FIGURE 55. PERCENT TOTAL POPULATION UNINSURED, BY COUNTY AND CITY, 2009-2014**



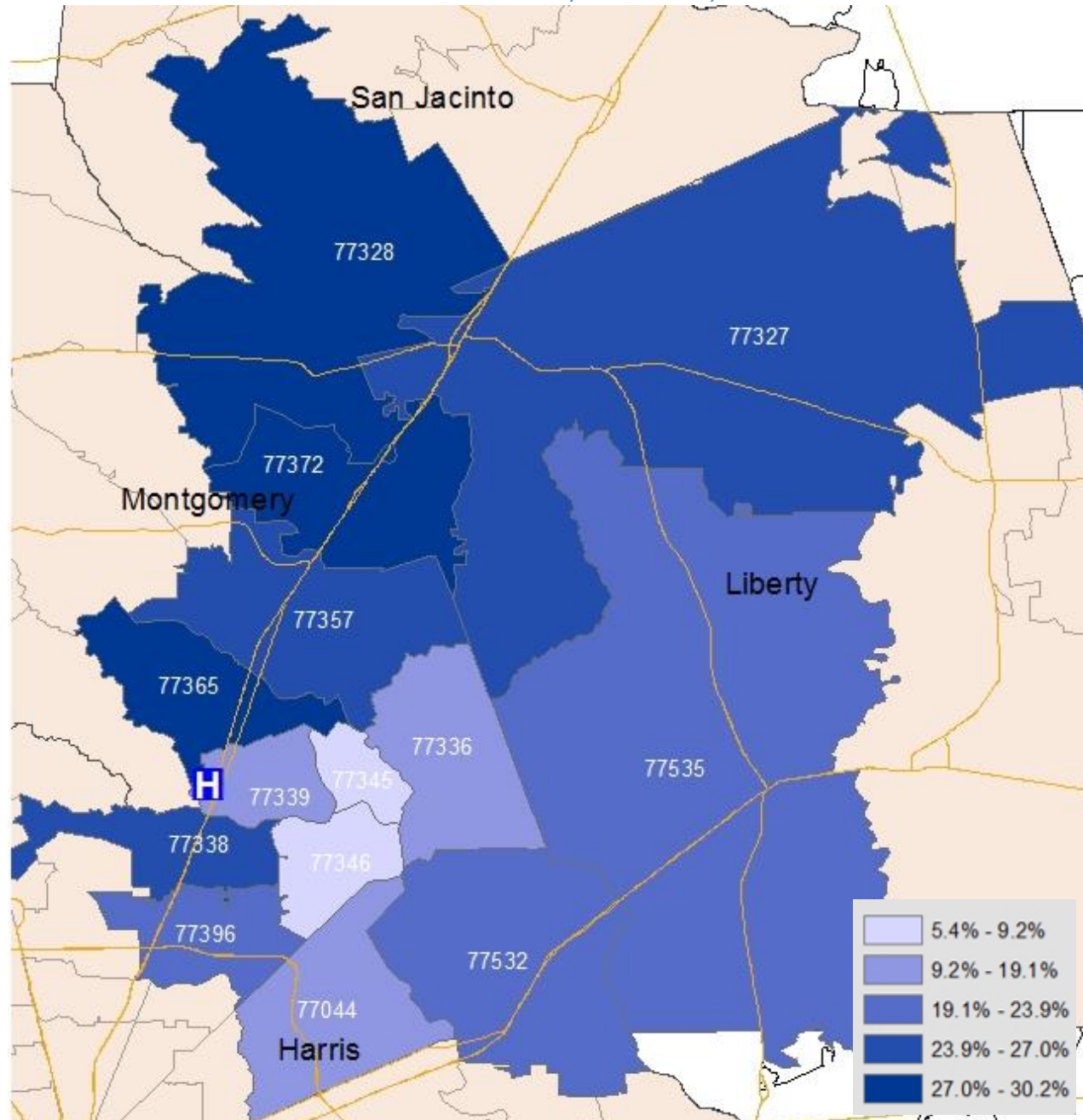
**DATA SOURCE:** U.S. Census Bureau, American Community Survey 1-Year Estimates, 2009, 2010, 2011, 2012, 2013, and 2014

**NOTE:** Data not available for San Jacinto County

Rates of uninsurance varied by zip code across the communities served by MH Surgical Hospital Kingwood. In 2013, the zip codes immediately north of the MH Surgical Hospital Kingwood facility had the highest rates of uninsurance for the total population (FIGURE 56). In 2013, the zip code with the highest rate of uninsured residents of all ages was 77328 in Cleveland (San Jacinto County) with a rate of 30.2%. The zip code with the highest rate of uninsured residents among those under age 18 was 77338 in Humble (Harris County) with a rate of 20.0% (FIGURE 57).

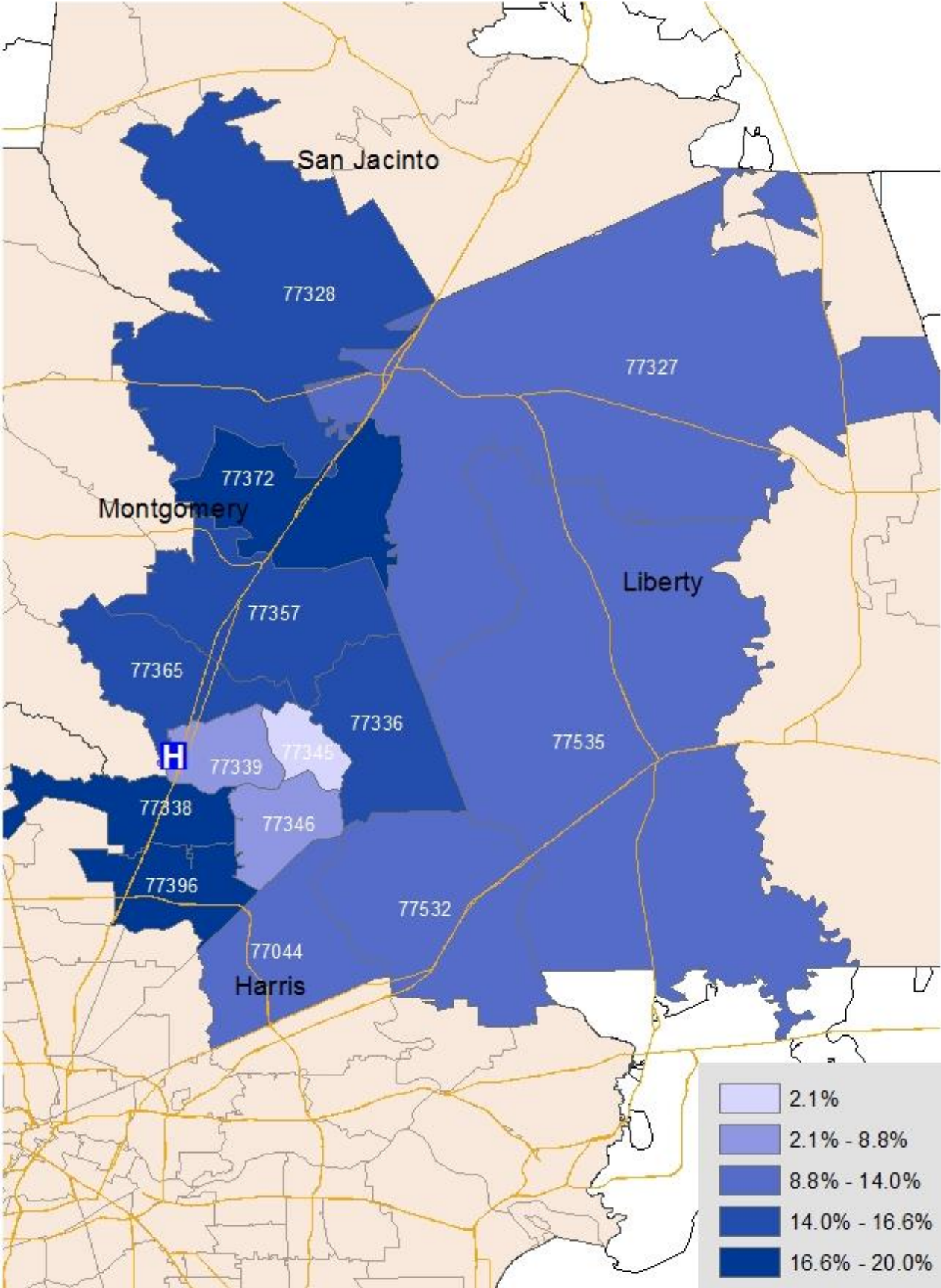
Among the zip codes served by MH Surgical Hospital Kingwood, 55,185 residents were enrolled in Medicaid. In Harris County, the zip code with the most Medicaid enrollees was 77396 in Humble (7,589 enrollees) (FIGURE 58). In Montgomery County, the zip code with the most Medicaid enrollees was 77365 in Porter (5,209 enrollees). In Liberty County, the zip code with the most Medicaid enrollees was 77535 in Dayton (4,420 enrollees). In San Jacinto County, the zip code with the most Medicaid enrollees was 77328 in Cleveland (3,181 enrollees).

**FIGURE 56. PERCENT TOTAL POPULATION UNINSURED, BY ZIP CODE, 2013**



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

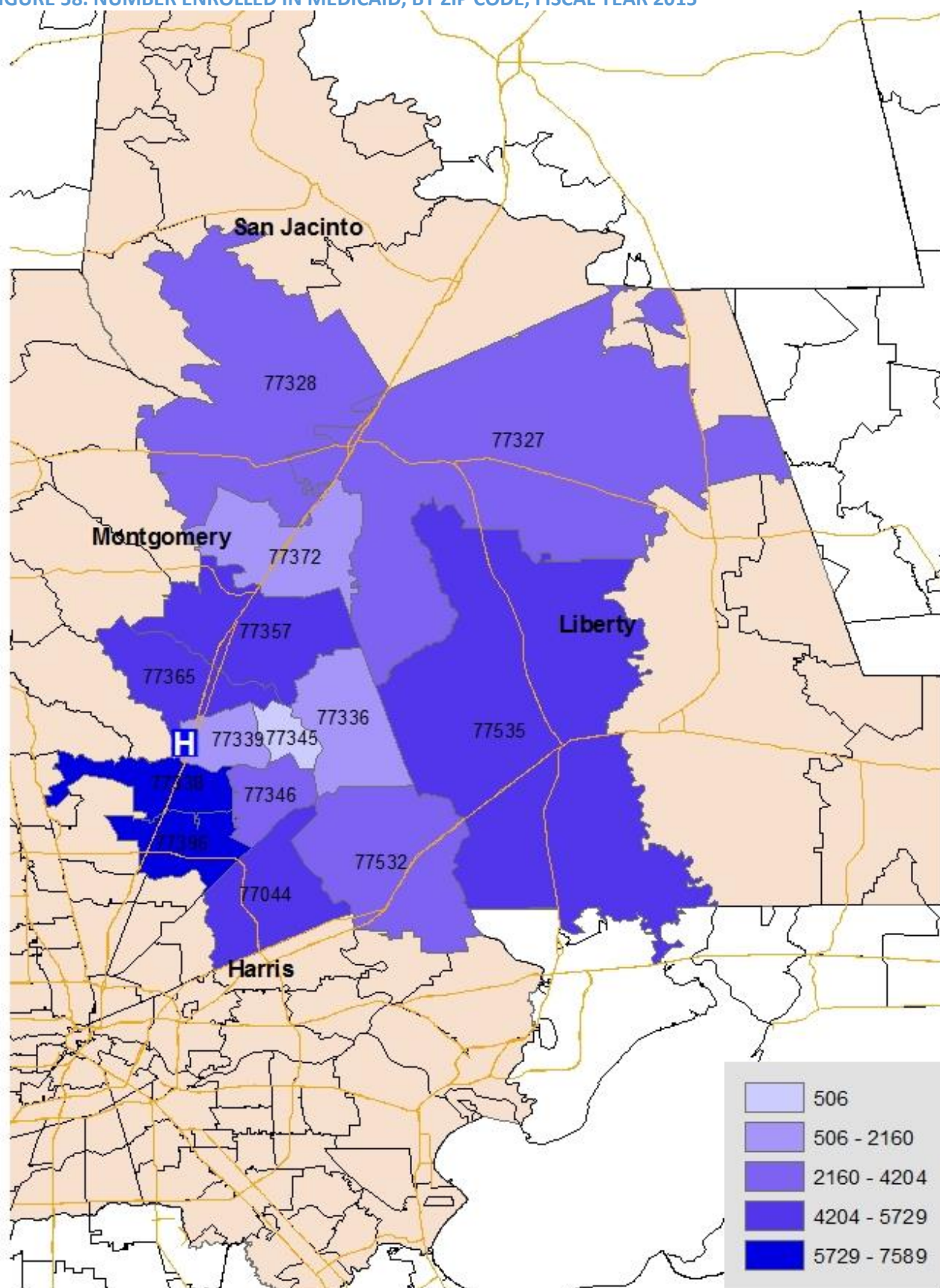
FIGURE 57. PERCENT UNDER 18 YEARS OLD POPULATION UNINSURED, BY ZIP CODE, 2013



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



FIGURE 58. 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

Focus group participants and key informants stated that shortages of specialty providers presented a barrier to access to care for area residents. As one mental health provider explained, *“I’m a social worker by training, and licensed, and I don’t think we can keep up with the demand on our systems and structures.”* Several respondents mentioned that the growing number of free-standing ERs and drugstore-based clinics have added to the landscape of health care services available to residents. However, as one provider explained, *“What patients get there is access but not a medical home.”* According to focus group respondents and interviewees, the barriers to health care access have led to increased use of emergency departments (ED) for health issues that are not emergent. As one informant explained, *“We have a high number of people who have public insurance and who say their doctor of choice is the ER.”*

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

Among those residents needing assistance to obtain health and social services, focus group participants reported challenges in meeting administrative requirements of existing programs as well as the lack of availability of assistance programs in some geographic areas. One focus group participant residing in a low-income area reported, *“...there are a lot of places that say they help people, but it’s a*

***“If the doctor prescribes a prescription and your insurance doesn’t cover it. You go back and the doctor says ‘you’ve got to get this.’ It costs \$400. How does any senior pay for that?”***

**Senior focus group participant**

*lot of paperwork. We need more assistance. Or you go there, and they say they have no funding.”*

Another challenge according to informants is that people are not accessing existing health and social services because they do not know about them. As one interviewee from Harris County explained, *“Harris County has a lot of programs and services. Information needs to be made available to [patients].”*

## Access to Primary Care

The 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 Montgomery (71.9 per 100,000 population), Liberty (34.4 per 100,000 population) and San Jacinto (13.9 per 100,000 population) Counties (FIGURE 59). In Harris County, 38.2% of adult residents self-reported that they did not have a doctor or health care provider (data not shown; data unavailable for Montgomery, Liberty or San Jacinto Counties).

***“Doctors are not taking Medicare any more and we have an exploding senior population. Most patients have multiple issues and several meds.”***

**Key informant interviewee**

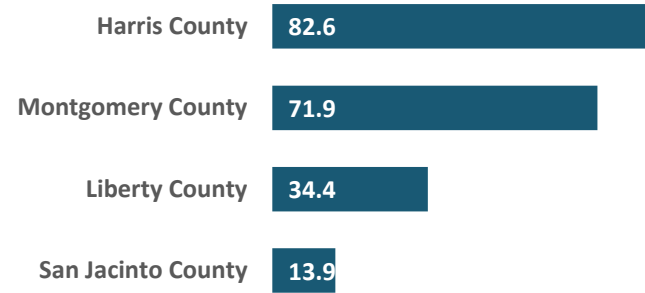
According to the Texas Medical Association’s 2014 physician survey, the percent of Texas physicians who accept all new Medicaid patients decreased from 42% in 2010 to 37% in 2014. In the Houston-The Woodlands-Sugar Land MSA in 2014, 34% of physicians accepted all new Medicaid patients, 24% limited their 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 Montgomery, Liberty, and San Jacinto 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 and ethnic minorities and immigrants, and individuals with limited education,

literacy, or English language skills are all less likely to have a usual source of care (USOC) provider other than a hospital emergency department (ED). In 2013, about 4 in 10 ED visits were classified as primary care-related.

**FIGURE 59. NUMBER OF PRIMARY CARE PHYSICIAN PER 100,000 POPULATION, COUNTY, 2014**



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



## 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

*"Our school systems are strong [in Houston]."*

Focus group participant

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

Key informant interviewee

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

Key informant interviewee

### Diverse, Cohesive Community

Residents and stakeholders described diversity and social cohesion as being among the primary assets and strengths of their community. The Greater Houston area was described as *"an extremely diverse community"* with *"positive growth"* and a *"sense of community."* Informants described the positive role of diversity in driving the creation of robust communities to participate in and resources to meet those needs. *"Houston is an extremely rich place, culturally. We have something for everyone. Community needs can be met pretty well here in Houston because there's a lot of understanding of different types of needs. The feeling is that you can always find community."* Many key informants and focus group participants described a sense of social cohesion across communities. This cohesion does not just occur within neighborhoods, but also within groups sharing a common issue. For example, one key informant reported: *"From what I see in the disability community is a strong sense of friendship. People know each other and care about each other because they see that they have similar difficulties. That brings people together and supports and connects them."*

### High-Quality, Plentiful Medical Care

A key theme among key informants and focus group participants was the wide availability of health care services and the high quality of those services, both in Houston and within communities served by MH Surgical Hospital Kingwood. As one informant explained, *"[We have] one of the strongest complex of medical services in the United States and the*

*world."* The health care system is also described as having a strong community health system in addition to world-class acute care. *"We have a strong community healthcare system...there is a significant amount of hospitals available to people."*

### Strong Public Health and Social Service System

A robust network of public health and social service organizations serves the communities of MH Surgical Hospital Kingwood. Many focus group participants and key informant interviewees reported that their communities are served by a number of non-profit and other charitable organizations: *"There are organizations doing good work with the resources they have. We have a very strong presence in our local health department, and they have a strong commitment at looking at and working with school districts to fill gaps, understanding needs of the community and creating the mission that intertwines with other organizations."* Along with the theme of social cohesion and a sense of community closeness reported earlier, key informants also described the community as being charitable: *"We are a generous community. A lot of our services are supported by donations from foundations, individuals, or fundraisers. There is a lot of volunteer effort."*

### Strong Schools

The communities served by MH Surgical Hospital Kingwood have strong schools, according to key informants and focus group respondents. One key informant reported, *"We have great school districts. Education outreach is good."*

### Economic Opportunity

Many key informants and focus group participants reported improvement in the local economy, creating economic opportunities for residents and businesses in the communities served by MH Surgical Hospital Kingwood: *“There are jobs here. They may not be high paying jobs, but they provide some income for people to survive.”* Focus group participants also reported the cost of living as a positive. As one focus group member shared, *“There’s a lower cost of living. I came from California. Everything is cheaper here.”*

## COMMUNITY VISION AND SUGGESTIONS FOR FUTURE PROGRAMS AND SERVICES

Assessment participants were asked about their vision for the future of their community, and ideas for programs, services and initiatives. Prominent themes that emerged related to the future program and service environment included the promotion of healthy eating and physical activity, improvement of transportation and roads, supporting people in their navigation of the health care system, expansion of available and access to health care services, and multi-sector collaboration across institutions.

### Promote Healthy Living

**Promotion of healthy eating, physical activity, and disease self-management by health care delivery systems and supporting social service organizations was a top suggestion of stakeholders.** Interviewees and focus group members identified a need to address the rising rates of obesity and chronic disease in the region and promote community health for the long term. Suggestions about how to do this varied. For example, one informant suggested insurance incentives: *“An insurance product can encourage healthy lifestyles. If you can put a reasonable one in peoples’ hands...that incentivizes people and it could have the biggest effect.”* One key informant noted that promotion of healthy living must be aligned with better access to health care services: *“The long term solution is healthy living. Needs to be pushed concurrently with health care access. They need to come hand in hand.”*

Other stakeholders suggested investment in education in communities with the highest rates of obesity to promote healthier habits: *“I suggest major educational efforts. Not one size fits all but they would be tapping into multiple parts of the community where you can access individuals who need it.”* To address this, participants suggested more education programs around things like nutrition, cooking healthy foods, and more community-based events around physical activity. Parent engagement was seen as critical. As one person stated, *“We need to do more educating and engaging family. It needs to be reinforced at the family level.”* Respondents cited many potential partners in this work including hospitals, schools and school nurses, social service organizations,

public programs like WIC, faith institutions, and workplaces. A couple suggested PSAs with positive messaging around healthy lifestyles.

### Improve Transportation

**Transportation presents many problems in the communities served by MH Surgical Hospital Kingwood, and stakeholders offered perspectives and ideas for future programs and services to alleviate the burden caused by traffic and the lack of transportation in some communities.** As one key informant shared, *“We really do need a robust transportation system. Increasing access to that will make a big difference in community health.”* Focus group participants and key informant interviewees made suggestions about the direction of future efforts to address transportation. For example, stakeholders suggested non-profits could offer more transportation services. As stated by one key informant: *“Having more vehicles available and of course more people to hire would help.”* Stakeholders also suggested public transportation be expanded and promoted, especially in areas where the population is increasing.

### 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 Surgical Hospital Kingwood. Stakeholders described existing strategies such as community health workers should be expanded.** Numerous respondents pointed to the critical role that Community Health Workers (CHWs) play in educating patients and community members about prevention and in helping them to navigate the health system. For example, a stakeholder suggested, *“Navigator programs for people to access healthcare.”* Senior focus group respondents were particularly insistent that advocates be available for them to navigate the complexities of the health care system. As one senior focus group member stated, *“We need personal advocates for us seniors. We don’t have anyone to fight for us, no one to talk for us.”* Another participant stated, *“We need to teach health literacy. Sure, the ACA has been positive but if people don’t know how to use their insurance, it’s useless.”* Respondents also pointed to the need for

larger systems reform that incentivizes a more holistic approach to health care, including a social support component. For example, one informant said, *“If there was a mechanism to reimburse providers to provide social support within the healthcare setting...that would make patients’ lives easier. They wouldn’t have to worry as much about how to navigate the system. Maybe like a one-stop shop. More comprehensive care. Looking more like holistic care.”*

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

**While the communities served by MH Surgical Hospital Kingwood offer a multitude of health care services that are recognized as being among the best in the United States, access remains a top issue that community stakeholders wished to see addressed.** As one informant stated, *“We’ve got some of the greatest physicians in town. The cardiologists, the OBs, the neonatologists...and that’s great but we need more.”* One strategy suggested by multiple stakeholders was investment in training local workforce to become health care professionals, particularly in specialties such as child psychiatry, vision, and behavioral health: *“We need educational institutions to staff the innovative programs we need. That’s coming full circle. This is not what it was years ago...until we get enough providers...that’s when we will achieve the structure and service delivery to meet all the needs. We have to look beyond our own walls to do this.”* This stakeholder also suggested partnerships with academic institutions to train the future workforce needed to meet the needs of the growing population.

#### **Expand Access to Behavioral Health Services** **Informants identified behavioral health care access as being a major unmet need in the communities served by MH Surgical Hospital Kingwood.**

Residents reported that more behavioral health services were needed across the region and across age groups. One key informant interviewee described, *“There is a major need for detox and*

*behavioral health. There needs to be a closer link between population health and primary care.”*

Stakeholders reported that the Texas Section 1115 Medicaid demonstration waiver had opened the door in Texas to improvement in access to and quality of behavioral health services. Stakeholders suggested Texas should pursue strategies that sustain these efforts and continue to promote innovation within the behavioral health services space.

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

**Health care and social service stakeholders frequently noted that, while many local services exist, there are opportunities to improve communication and collaborate to improve population health in the communities that serve MH Surgical Hospital Kingwood.** Lack of collaboration among big players in the health care space—from medical institutions to public health organizations, government, payers, and social services—was a consistent theme across the key informant interviews. As one person shared, *“Harris is a unique county in that it’s very large, one of the largest in the state. And although we tend to have a lot of resources here they are not well coordinated.”* Informants suggested that developing a common agenda across sectors with multiple institutions is a needed next step to improving population health: *“If we could get everybody working on a common agenda...Driving our resources into one area...If we could rally on one thing...that would be incredibly helpful. A concentrated effort.”* As noted earlier, respondents reported that because the Texas Section 1115 Medicaid demonstration waiver is intended to promote systems transformation, it provides an opportunity for regional partnerships to address service gaps.

## KEY THEMES AND CONCLUSION

Through a review of the secondary data and discussions with community residents and key informants, this assessment report provides an overview of the social and economic environment of the community served by MH Surgical Hospital Kingwood, 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 counties of Harris, Montgomery, Liberty, and San Jacinto differ in terms of demographics and population health needs.** Liberty and San Jacinto County residents faced greater socioeconomic and health challenges than residents in the other two counties. Quantitative data indicate that San Jacinto and Liberty County residents are older, have a lower median household income, experience higher unemployment, and are less educated than their counterparts in Harris and Montgomery Counties. Both San Jacinto and Liberty Counties have fewer dentists and primary care physicians per 100,000 population than the other counties. They also experience greater health challenges, including higher rates of mortality, cancer incidence, and rates of asthma admissions to the hospital.
- **The increase in population over the past five years has placed a tremendous burden on existing public health, social, and health care infrastructure, a trend that places barriers to pursuing a healthy lifestyle among residents.** The residents of communities served by MH Surgical Hospital Kingwood are experiencing challenges associated with rapid population growth, including strain on housing availability, time spent commuting to work, and the availability of resources to stay healthy. Infrastructure that does not keep up with demand leads to unmet need and sustains unhealthy habits in the community. Communities without easy access to healthy foods, safe roads, affordable housing, fewer sidewalks, and more violence are at a disadvantage in the pursuit of healthy living.

- **Although there is economic opportunity for many residents, there are pockets of poverty and some residents face economic challenges that can affect health.** Seniors and members of low-income communities face challenges in accessing care and resources compared to their younger and higher income neighbors. While uninsured rates have decreased slightly over the past five years, many adults and children face barriers to obtaining care including cost, availability of providers, language and cultural barriers, and transportation. There are many support organizations in the community that help the uninsured obtain health insurance and charitable care such as federally qualified health centers, but stakeholders report more support is needed for this vulnerable population. Strategies such as community health workers may increase residents' ability to navigate an increasingly complex health care and public health system.

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

- **Behavioral health was identified as a key concern among residents.** Stakeholders highlighted unmet needs for mental health and substance abuse services in the communities served by MH Surgical Hospital Kingwood, particularly the burden of mental illness for young people and the incarcerated population. Findings from this current assessment process illustrate the importance of pursuing innovative strategies to address behavioral health issues, such as those programs that are part of the Texas Section 1115 Medicaid demonstration

waiver. This area is ripe with opportunity to address needs that are currently not being met.

- **Communities served by MH Surgical Hospital Kingwood have many health care assets, but access to those services is a challenge for some residents.** Transportation to health services was identified as a substantial concern, especially for seniors and lower income residents, as there are few public transportation

options in the region. While existing public transportation is being expanded in a limited way in the region, some communities served by MH Surgical Hospital Kingwood have limited access to public transportation. There is an opportunity to expand services to fill in gaps in transportation, ensuring residents are able to access primary care and behavioral health services as well as actively participate in their communities.



## PRIORITIZATION OF COMMUNITY HEALTH NEEDS

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

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

HRiA and MHHS conducted an initial narrowing of the priorities based on key criteria, outlined in

FIGURE 60, 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 Surgical Hospital Kingwood. 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 Surgical Hospital Kingwood, 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 60. PRIORITIZATION CRITERIA**

RELEVANCE <i>How Important Is It?</i>	APPROPRIATENESS <i>Should We Do It?</i>	IMPACT <i>What Will We Get Out of It?</i>	FEASIBILITY <i>Can We do It?</i>
<ul style="list-style-type: none"> <li>• Burden (magnitude and severity, economic cost; urgency of the problem)</li> <li>• Community concern</li> <li>• Focus on equity and accessibility</li> </ul>	<ul style="list-style-type: none"> <li>• Ethical and moral issues</li> <li>• Human rights issues</li> <li>• Legal aspects</li> <li>• Political and social acceptability</li> <li>• Public attitudes and values</li> </ul>	<ul style="list-style-type: none"> <li>• Effectiveness</li> <li>• Coverage</li> <li>• Builds on or enhances current work</li> <li>• Can move the needle and demonstrate measureable outcomes</li> <li>• Proven strategies to address multiple wins</li> </ul>	<ul style="list-style-type: none"> <li>• Community capacity</li> <li>• Technical capacity</li> <li>• Economic capacity</li> <li>• Political capacity/will</li> <li>• Socio-cultural aspects</li> <li>• Ethical aspects</li> <li>• Can identify easy short-term wins</li> </ul>

## APPENDIX A. FOCUS GROUP AND KEY INFORMANT ORGANIZATIONS

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

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

### Organizations Contributing Key Informant Interviews

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

## APPENDIX B. FOCUS GROUP GUIDE

### Goals of the Focus Groups:

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

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

### BACKGROUND (5 MINUTES)

- Welcome everyone. My name is \_\_\_\_\_, and I work for Health Resources in Action, a non-profit public health organization in Boston.
- We're going to be having a focus group today. Has anyone here been part of a focus group before? You are here because we want to hear your opinions. I want everyone to know there are no right or wrong answers during our discussion. We want to know your opinions, and those opinions might differ. This is fine. Please feel free to share your opinions, both positive and negative.
- Memorial Hermann Health System is conducting a community health assessment to gain a greater understanding of the health issues facing residents in the Greater Houston area and its specific communities, how those needs are currently being addressed, and where there are opportunities to address these needs in the future. The information you provide is a valuable part of this assessment and improving health services in the community.
- As you can see, I have a colleague with me today, [NAME], who is taking notes during our discussion. She works with me on this project. I want to give you my full attention, so she is helping me out by taking notes during the group and she doesn't want to distract from our discussion.
- [NOTE AUDIOTAPING IF APPLICABLE] Just in case we miss something in our note-taking, we are also audio-taping the groups tonight. We are conducting several of these discussion groups around the Greater Houston area, and we want to make sure we capture everyone's opinions. After all of the groups are done, we will be writing a summary report of the general opinions that have come up. In that report, I might provide some general information on what we discussed tonight, but I will not include any names or identifying information. Your responses will be strictly confidential. In our report, nothing you say here will be connected to your name.
- You might also notice that I have a stack of papers here. I have a lot of questions that I'd like to ask you tonight. I want to let you know that so if it seems like I cut a conversation a little short to move on to the next question, please don't be offended. I just want to make sure we cover a number of different topics during our discussion tonight.
- Lastly, please turn off your cell phones or at least put them on vibrate mode. The group will last only about 80-90 minutes. If you need to go to the restroom during the discussion, please feel free to leave, but we'd appreciate it if you would go one at a time.
- Any questions before we begin our introductions and discussion?

## INTRODUCTION AND WARM-UP (5-10 MINUTES)

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

## COMMUNITY AND HEALTH PERCEPTIONS (15-20 MINUTES)

- Tonight, we're going to be talking a lot about the community or neighborhood that you live in. How would you describe your community?
  - If someone was thinking about moving into your community, what would you say are some of its biggest strengths or the most positive things about it? [PROBE ON COMMUNITY AND ORGANIZATIONAL ASSETS/STRENGTHS]
- What are some of the biggest problems or concerns in your community? [PROBE ON ISSUES IF NEEDED – HEALTH, ECONOMIC, SOCIAL, SAFETY, ETC.]
  - Just thinking about day-to-day life –working, getting your kids to school, things like that – what are some of the challenges or struggles you deal with on a day-to-day basis?
- What do you think are the most pressing health concerns in your community? [PROBE ON THE FOLLOWING SPECIFIC ISSUES IF NOT MENTIONED: CHRONIC DISEASES/CONDITIONS, MENTAL HEALTH, SUBSTANCE ABUSE, VIOLENCE, ACCESS TO HEALTHY FOOD; ENSURE ADEQUATE DISCUSSION TIME; PROBE ON HEALTH CARE ACCESS IF MENTIONED]
  - How have these health issues affected your community? [PROBE FOR SPECIFICS]
- Thinking about health and wellness in general, what helps keep you healthy?
  - What makes it easier to be healthy in your community?
  - What supports your health and wellness?
  - What makes it harder to be healthy in your community?

## PERCEPTIONS OF PUBLIC HEALTH/PREVENTION SERVICES AND HEALTH CARE (15-20 minutes)

- Let's talk about a few of the health issues you mentioned. [SELECT TOP HEALTH CONCERNS]  
What programs, services, and policies are you aware of in the community that currently focus on these health issues?
- What's missing? What programs, services, or policies are currently not available that you think should be?
- What do you think the community should do to address these issues? [PROBE SPECIFICALLY ON WHAT THAT WOULD LOOK LIKE AND WHO WOULD BE INVOLVED TO MAKE THAT HAPPEN]
  - What do you think are some things a community could do to make it easier for people to be healthy?
  - If these things were available in the community, what would make you more likely to access these opportunities? (PROBE ON SPECIFICS IF NEEDED: What would these programs/services include? Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?)
- [IF NOT ALREADY MENTIONED] I'd like to ask specifically about health care in your community. Have you or someone close to you ever experienced any challenges in trying to get health care? What specifically? [PROBE FOR BARRIERS: INSURANCE ISSUES, LANGUAGE BARRIERS, LACK OF TRANSPORTATION, CHILD CARE, ETC.]
  - [NAME BARRIER] was mentioned as something that made it difficult to get health care. What do you think would help so that people don't experience the same type of problem that you did in getting health care? What would be needed so that this doesn't happen again? [REPEAT FOR OTHER BARRIERS]

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

- I'd now like to talk specifically about being able to live a healthy lifestyle such as being able to maintain a healthy weight and being able to exercise. In your opinion, is being able to maintain a healthy habits a concern in your community?
  - [PROBE IF NEEDED: How much of a concern is being able to live a healthy lifestyle relative to other health or economic issues?]
- What are some things that you think people can do to achieve or maintain a healthy weight in your community? [PROBE FOR RISK FACTORS AND BEHAVIORS: ACCESS TO HEALTHY FOODS, SAFE ENVIRONMENTS FOR BEING PHYSICALLY ACTIVE, EATING HEALTHY AT HOME OR WORK, TIME TO BE PHYSICALLY ACTIVE, ETC.]
- Let's talk about healthy eating.
  - Do you know of any programs in your community that currently try to address healthy eating? What are they?
  - What kinds of programs or services would you want to see in your community to help people with healthy eating? What would the program look like?

- If these programs or services were available in the community, what would make you more likely to access these opportunities? (PROBE ON SPECIFICS IF NEEDED: Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?
- Let's talk about exercise.
  - Do you know of any programs in your community that currently try to help people exercise more? What are they?
  - What kinds of programs or services would you want to see in your community to help people with physical activity? What would the program look like?
  - If these programs or services were available in the community, what would make you more likely to access these opportunities? (PROBE ON SPECIFICS IF NEEDED: Where should they be offered? During what hours? How often? Would you prefer an individual or group setting?)

### **CLOSING (2 MINUTES)**

- Thank you so much for your time and sharing your opinions. Before we end the discussion, is there anything that you wanted to add that you didn't get a chance to bring up earlier?
- I want to thank you again for your time. And we'd like to express our thanks to you. [DISTRIBUTE STIPENDS AND HAVE RECEIPT FORMS SIGNED].
- As I mentioned before, we are conducting these groups around the Greater Houston area, and we're also talking to people who work at organizations. After all this is over, we're going to be writing up a report. Memorial Hermann wants to share these report findings with people who are interested in the results. We have a sign-up sheet here if you are interested in finding out more about the results of this effort and to receive a summary of the report findings. Feel free to provide your name and contact information, if you are interested. If you are not interested, you do not have to sign up. [PROVIDE CONTACT SHEET FOR INTERESTED PEOPLE]
- Thank you again. Your feedback is greatly valuable, and we greatly appreciate your time and for sharing your opinion.



## APPENDIX C. KEY INFORMANT INTERVIEW GUIDE

### Goals of the Key Informant Interview

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

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

### BACKGROUND (5 minutes)

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

### THEIR AGENCY/ORGANIZATION

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

### COMMUNITY ISSUES

- How would you describe the community which your organization serves?
  - What do you consider to be the community's strongest assets/strengths?
    - What are some of its biggest concerns/issues in general? What challenges do residents face day-to-day?
  - What do you think are the most pressing health concerns in the community? Why? [PROBE ON SPECIFICS]
- Memorial Hermann Health System has identified promotion of healthy living as one of their priority areas for its assessment.

- Does [NAME OF COUNTY] have any programs that promote healthy lifestyles? (Prompt for nutrition, exercise.) If yes:
  - Do you think these programs are adequate? What is needed to improve these programs?
  - Which populations are most vulnerable or at risk for unhealthy lifestyles?
  - How do residents obtain information about these programs?
  - What do you think are community residents' biggest challenges in adopting a healthy lifestyle?
- FOR ADDITIONAL PRIORITY HEALTH AREAS, ASK THE FOLLOWING QUESTIONS FOR EACH AREA:
  - Memorial Hermann has also identified [HEALTH ISSUE] as a priority area for its assessment of community needs.
    - How has [HEALTH ISSUE] affected your community?
    - Who do you consider to be the populations in the community most vulnerable or at risk for [THIS CONDITION / ISSUE]?
    - From your experience, what are community residents' biggest challenges to addressing [THIS ISSUE]?
    - From your experience, what are organizations' biggest challenges to addressing [THIS ISSUE]?
    - What programs, services, or policies are you aware of in the community that address [THIS HEALTH ISSUE]? [PROBE FOR SPECIFICS]
    - Where are the gaps? What program, services, or policies are currently not available that you think should be?

[REPEAT SET OF QUESTIONS FOR NEXT HEALTH ISSUE IDENTIFIED]

3. In general, what is occurring or has recently occurred that affects the health of the community you serve? [PROBE ON EXTERNAL FACTORS: Built environment, physical environment, economy, political environment, resources, organizational structures, etc.]
  4. What are some factors that make it easier to be healthy in your community?
  5. What are some factors that make it harder to be healthy in your community?

## ACCESS TO CARE

- What do you see as the strengths of the health care and social services in your community? What do you see as its limitations?

- What challenges/barriers do residents in your community face in accessing health care and social services? What specifically? [PROBE IN DEPTH FOR BARRIERS TO CARE: INSURANCE ISSUES, LANGUAGE BARRIERS, LACK OF 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:

**Deborah Ganelin**

Associate Vice President, Community Benefit Corporation

Email: [Deborah.Ganelin@memorialhermann.org](mailto:Deborah.Ganelin@memorialhermann.org)

909 Frostwood Avenue, Suite 2.205

Houston, TX 77024