

# COMMUNITY HEALTH PROFILE

## Health Service Delivery Area C (Central-West and South-West) 2014



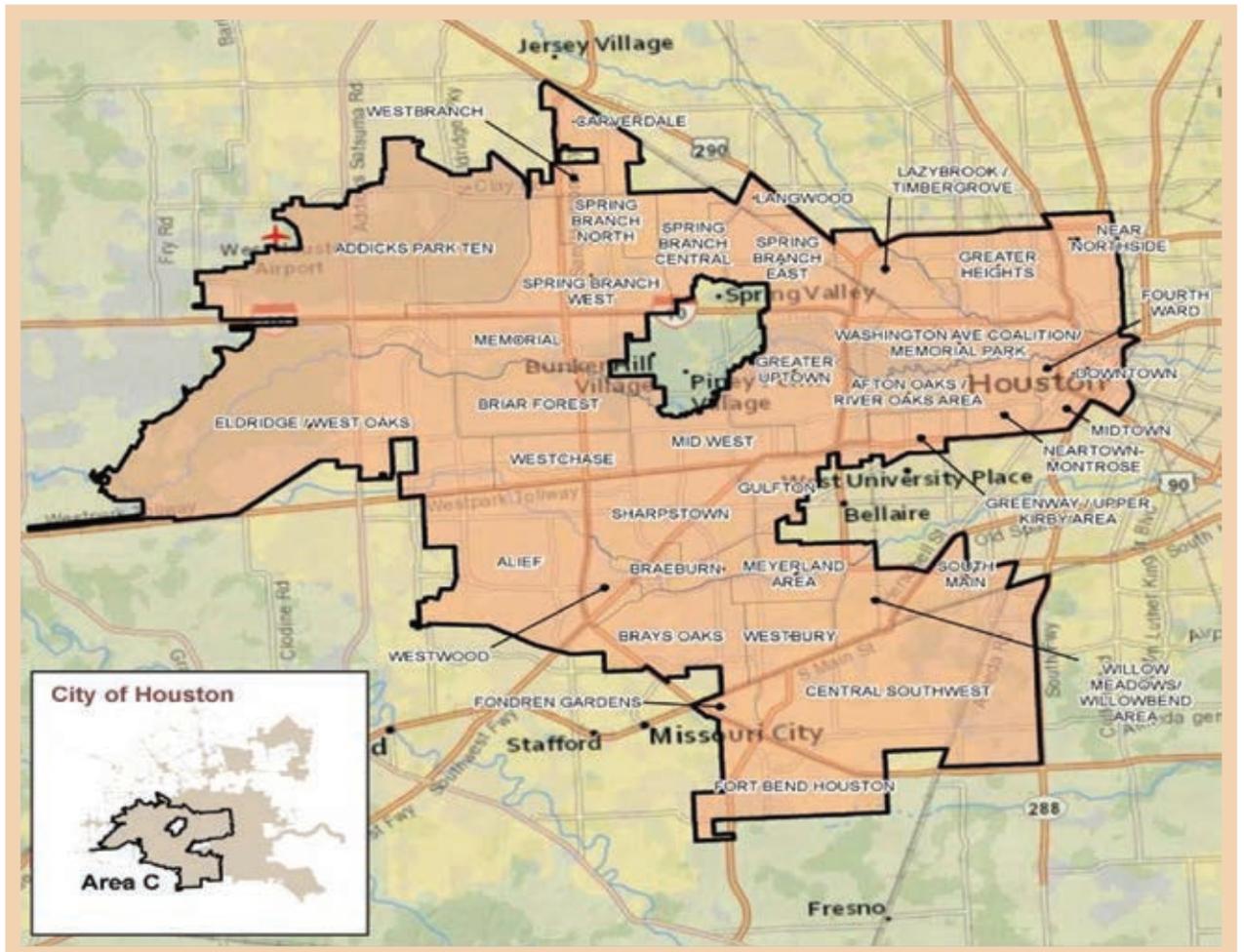
Houston Department of Health and Human Services



## Strategic Goals of the Houston Department of Health and Human Services

- Goal 1. Protect the Community from Disease
- Goal 2. Prepare for, Respond to and Recover from Disasters
- Goal 3. Increase Opportunities for Healthy Living
- Goal 4. Give Children a Healthy Start
- Goal 5. Align Services with National Mandates and Standards
- Goal 6. Demonstrate Organizational Excellence
- Goal 7. Reduce Health Disparities

### Area C and City of Houston

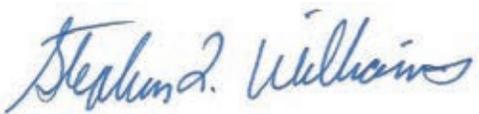


July 16, 2014

Welcome to the first set of Health Service Delivery Area Profiles of the Houston Department of Health and Human Services (HDHHS). HDHHS has created three health service delivery areas, comprised of contiguous Super Neighborhoods, to implement a new model of service delivery based on decentralization. Decentralization has allowed public health programs and staff to maintain a constant presence in the area, resulting in public health becoming more 'embedded' in the community.

We hope that the health profile for the Health Service Delivery Area C (Central-West and South-West part of the City of Houston, hereafter referred to as Area C) will serve as a resource to the community, to our internal and external stakeholders and to partners that work with HDHHS, to improve population health in the City of Houston. This report provides a snapshot of health conditions and the sociodemographic profile of residents living in Area C. For a list of the Super Neighborhoods included in Area C, please turn to the last page of this report.

Sincerely,

A handwritten signature in blue ink that reads "Stephen L. Williams". The signature is written in a cursive style with a light blue shadow effect behind the text.

Stephen L. Williams, M.Ed., M.P.A.

Director, Houston Department of Health and Human Services

City of Houston

## **Profile Objectives**

- To provide data to internal and external stakeholders and partnering organizations.
- To help prioritize health issues in need of evidence-based interventions.
- To provide a baseline reference for which changes in health indicators can be measured.
- To provide actionable recommendations when appropriate for planning, designing, implementing and evaluating public health programs and interventions.

## **Project Director**

Deborah Banerjee

## **Contributors**

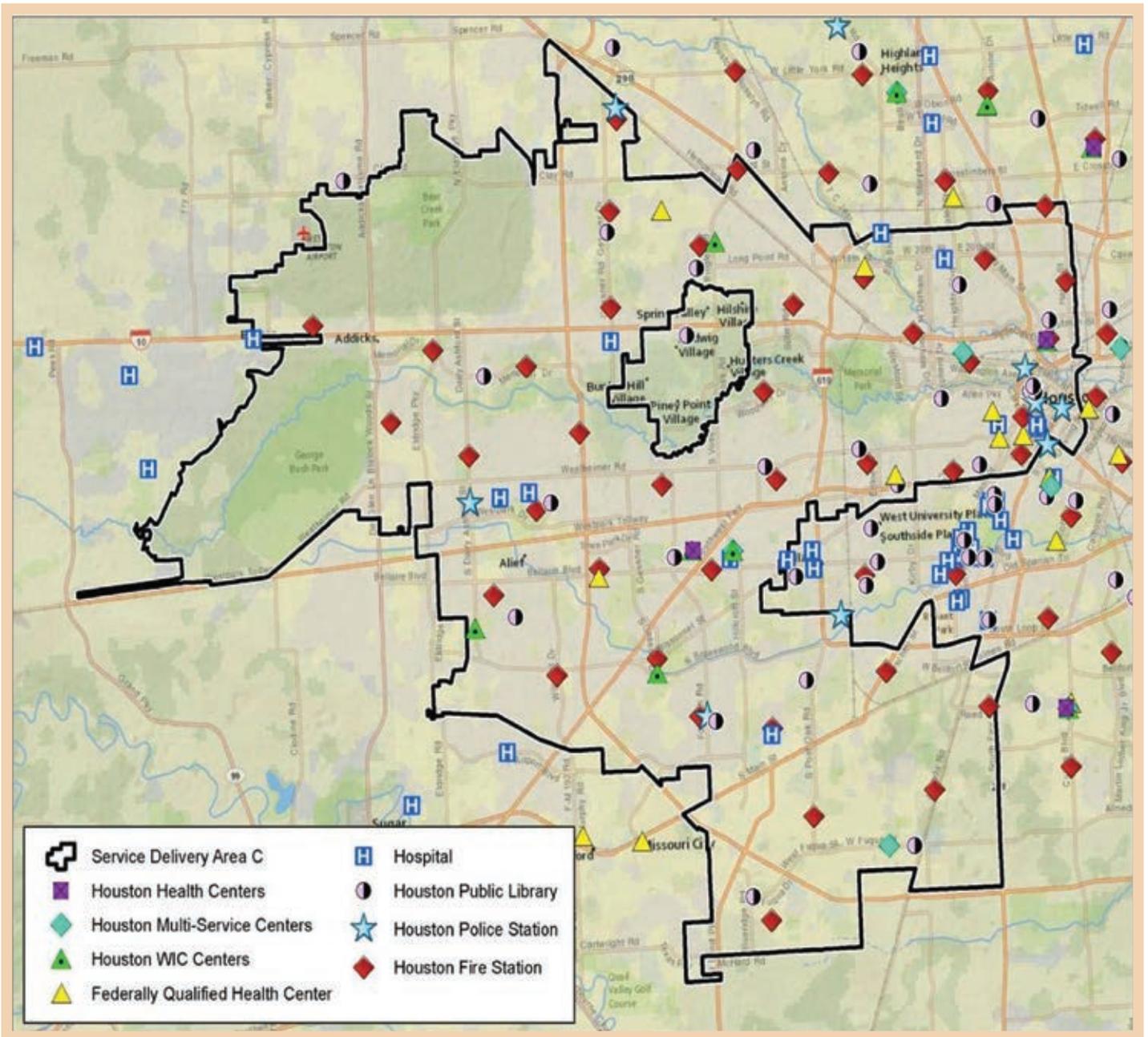
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# Community Resource Map



This map presents selected community resources in Area C. This information is dynamic and may change at any time. The information captured here is accurate to the best of our knowledge at the time this profile was published.

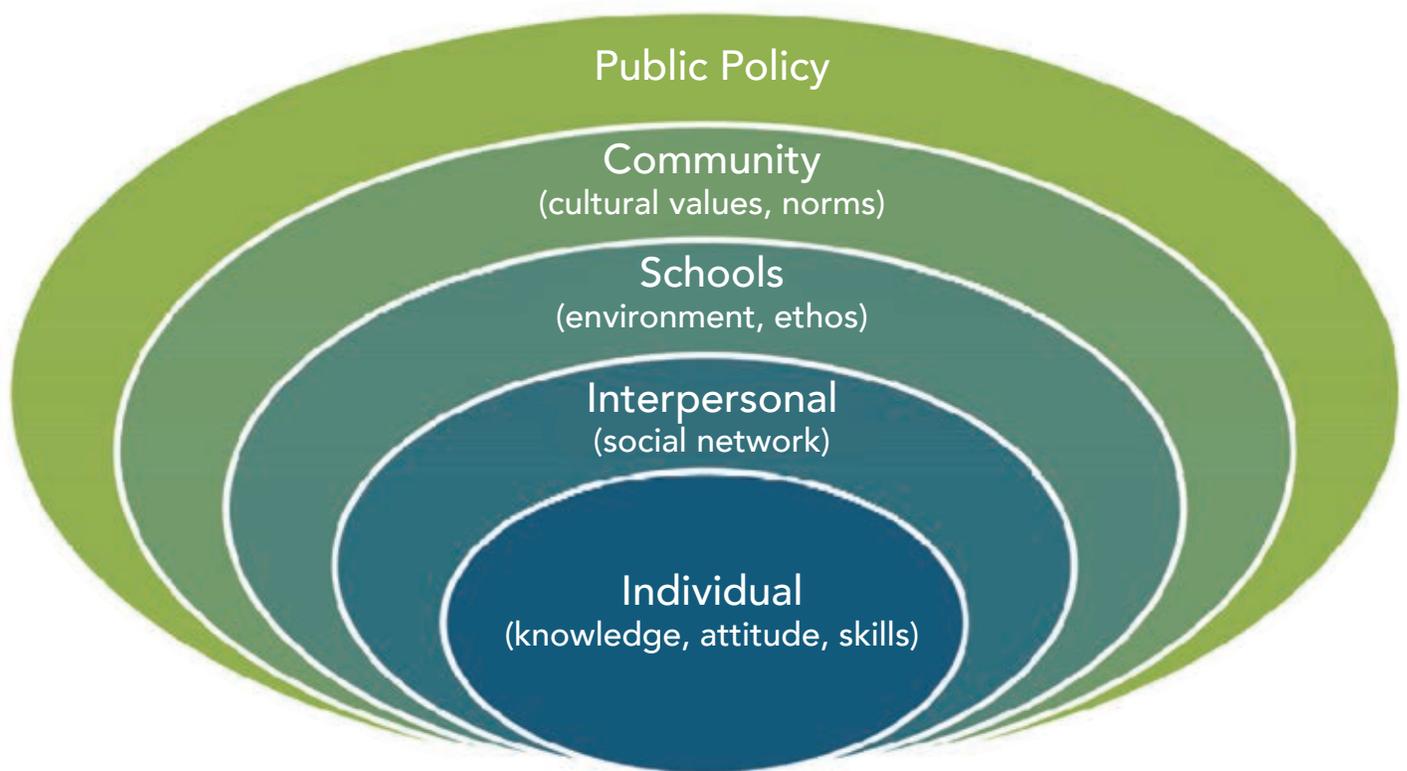
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## Introduction

The health of individuals, communities, and jurisdictions are mainly influenced by economic and social conditions known as the social determinants of health. These conditions can shape how a person uses physical, social, and personal resources to identify and achieve goals, fulfill their needs, and manage within their environment (Raphael, 2009).

This health profile uses a health equity lens, recognizing that health is a fundamental human need and therefore, a basic human right. Health is influenced by a complex interplay between societal conditions, biological and behavioral factors. This profile presents information in many of these areas to describe a collection of factors affecting health – aligned to a social ecological model, as shown below.



*It is critical to address health where people live, learn, work and play in order to give those at risk the best opportunity to live healthy productive lives.*

Robert Wood Johnson Foundation

## Introduction

### Organization of this Profile:

The City of Houston, the fourth largest city in the U.S., lies in Harris County, which is the most populous county in Texas with a vast geographic spread of 1,703 square miles and a population of 4.1 million in 2010. Established in 1840, the City of Houston Department of Health and Human Services (HDHHS) has grown to a department of approximately 1,100 employees. HDHHS is the public health authority for the City of Houston and provides core public health services to Houston residents such as disease surveillance; air and water quality monitoring; restaurant inspections; lead paint safety; cancer screening; family planning for the uninsured; communicable disease prevention and control; birth and death certificates; leadership during emergencies such as hurricanes; services to seniors; WIC programs; immunizations and others. HDHHS operates 11 multi-service centers, 5 health centers, 14 WIC (Women, Infants and Children nutrition program) sites, the Harris County Area Agency on Aging, a comprehensive regional reference laboratory, and more than 50 health and human service programs.

HDHHS provides services in three health service delivery areas (referred to as Areas A, B, and C). These areas were designated in 2010 and are aggregations of contiguous Super Neighborhoods (which are themselves aggregations of residential subdivisions, and hereinafter referred to simply as “neighborhoods”) used to decentralize department services and make health service delivery more manageable. This profile presents a quantitative snapshot of the most recently available data on selected health indicators for Area C. This profile focuses on socio-demographic conditions, access and utilization of care, prevalence and incidence of certain diseases, behaviors that increase the risk of poor health, and quality of life.

The information presented synthesizes the most recently available data from multiple sources. Data on the above areas is organized in sections. Each section is followed by recommendations for action to improve health outcomes in Area C.

### Technical Notes:

- Presenting average indicators, such as average income, at the Area level is likely to mask the true picture of conditions in some neighborhoods because each Area combines lower and higher income neighborhoods. The socio-economic data presented here are derived from the American Community Survey (ACS) five-year estimates (2007-2011) with some supporting information pulled from the U.S. Census 2010.
- The City of Houston, Harris County, and State of Texas indicators are used as reference groups to compare data. The Behavioral Risk Factor Surveillance System (BRFSS) data is compared to the City of Houston as a reference and Health of Houston (HHS) data is compared to Harris County.
- Much of the data comes from complex and weighted cross-sectional survey data, thus, crude point prevalence rates are presented in many cases.



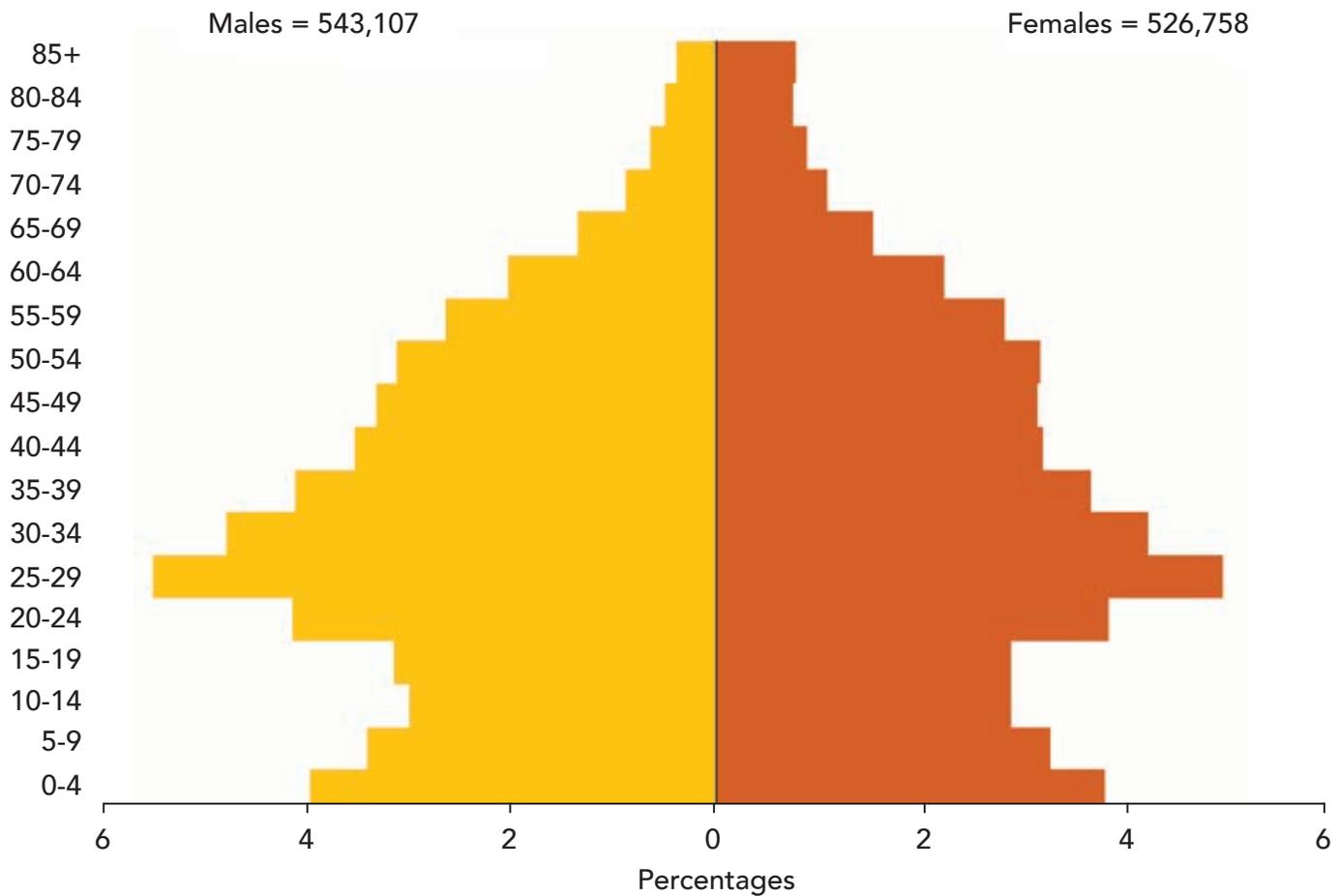
## Socioeconomic Conditions and Access to Care

- ◆ Demographics
- ◆ Language
- ◆ Household Characteristics
- ◆ Poverty
- ◆ Income and Benefits
- ◆ Education
- ◆ Employment Status and Occupational Categories
- ◆ Health Insurance
- ◆ Medicaid
- ◆ Access to Care

# Demographics

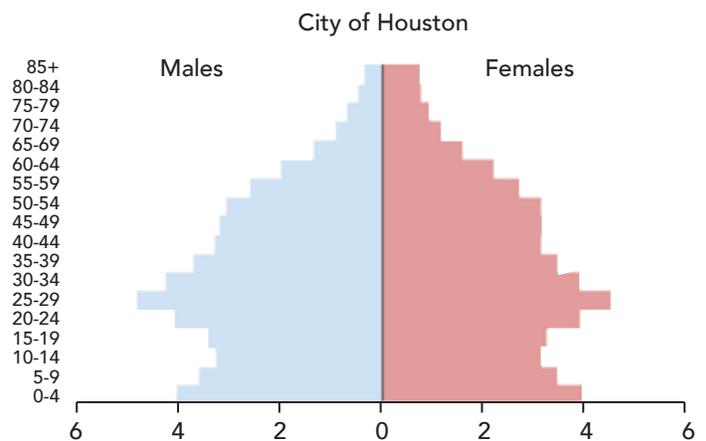
## Age Pyramid by Gender

**Area C Total Population = 1,069,865**



The age pyramids for Area C and the City of Houston are represented as a horizontal bar graph that shows the percentage of males in each age group on the left side and the percentages of females on the right. The age categories are grouped into five year increments, with the youngest in the population located at the bottom (U.S. Census Bureau, 2010).

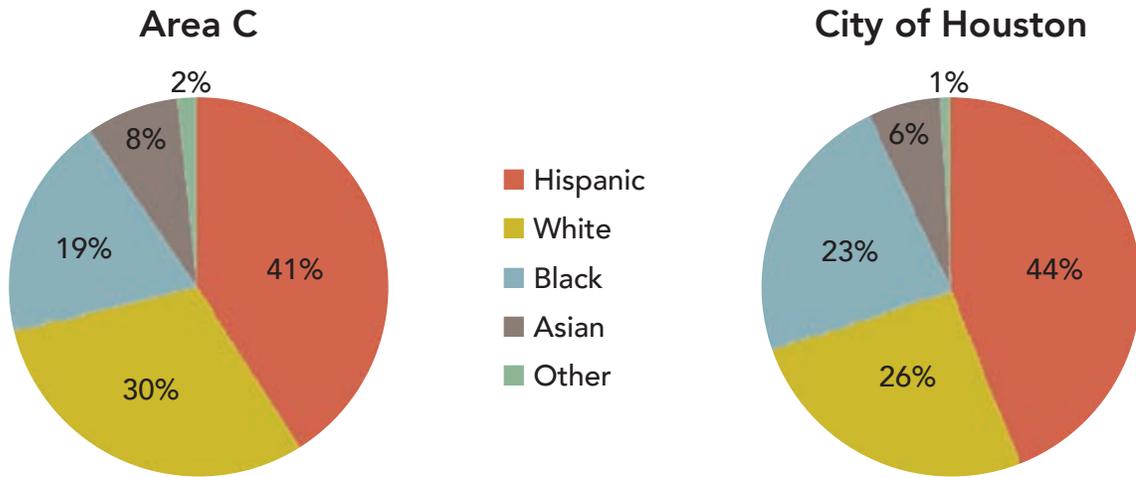
The age distribution pyramids show that both Area C and the City have high proportion of young people. About half of residents in Area C are under the age of 35. The highest percentage of Area C residents fall within the 25 to 29 age groups, representing over 110,000 residents. Overall, smaller proportions of residents under the age of 25 were living in Area C, as compared to the City of Houston.



Data Source: U.S. Census Bureau, 2010

## Demographics and Language

### Race / Ethnicity

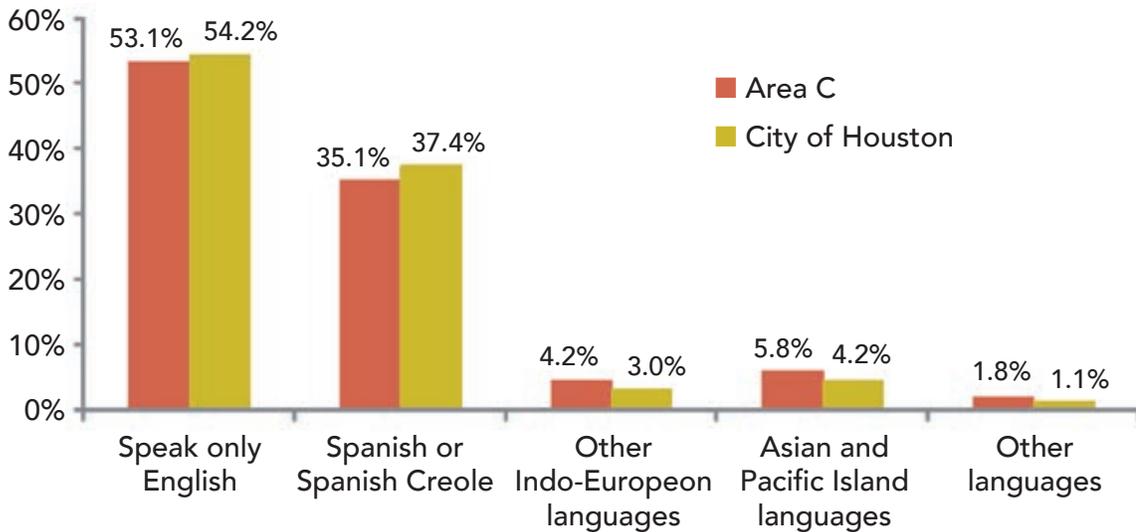


The total population of Area C is 1,069,865 and about 40 percent (more than 438,000 residents) are from Hispanic descent.

The total population of the City of Houston is 2,099,451. Hispanics comprise the racial/ethnic group in the City, representing approximately 44 percent of the population.

English is the primary language spoken at home for more than 50 percent of households in Area C and the City of Houston. The second most frequently spoken language is Spanish or Spanish Creole. Other languages spoken at home consist of Indo-European, Asian and Pacific Island dialects.

### Language Spoken at Home



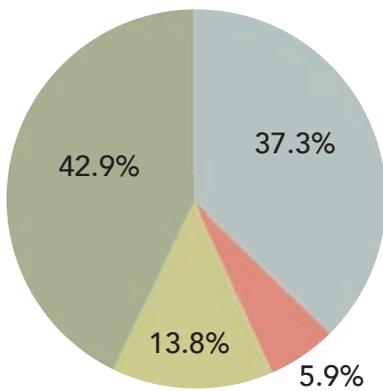
Data Source: U.S. Census Bureau, 2010

# Household Characteristics

A family household is defined as a household maintained by a householder within a family that includes a family (related by birth, marriage, or adoption), and may also include any unrelated individuals living within the home (U.S. Census Bureau, 2012a). A non-family household refers to a householder living alone or sharing the home exclusively with non-relatives (U.S. Census Bureau, 2012b).

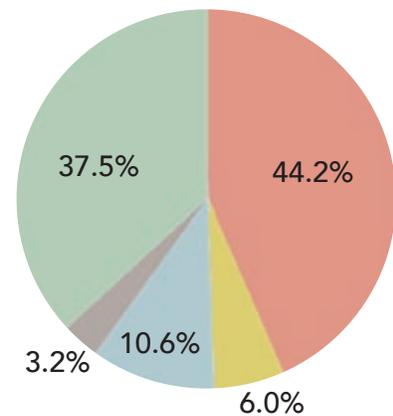
## Area C

### Household Types



- Married couple family household
- Male householder, no wife present
- Female householder, no husband present
- Nonfamily household

### Marital Status



- Now married (expect separated)
- Widowed
- Divorced
- Separated
- Never married

The majority of households in Area C either contain married couples (37.3%) or are non-family households (42.9%). These numbers can be compared to the City of Houston households of married couple families (39.0%) or are non-family households (38.5%).

In terms of marital status, Area C is very similar to Houston as a whole. The marital status of the majority of residents in Area C is either currently married (44.2%) or have never been married (37.5%). Another 13.8 percent are either divorced or separated and 6.0 percent are widowed.

Data Source: U.S. Census Bureau, 2010

## Poverty

United States (U.S.) Census Bureau uses a set of poverty thresholds to estimate the annual income needed for a given family to meet basic needs. The poverty threshold or poverty line, varies by family size and composition. A family is considered poor if their annual income is less than the poverty threshold (U.S. Census Bureau, 2012c). Approximately 19 percent of the population in Area C live below the poverty line.

### Poverty By Race/Ethnicity (Rate per 1,000 Population)

Race/Ethnicity	Poverty Rates		
	Area C	City of Houston	Texas
White, Non-Hispanic	63.9	75.5	87.3
Blacks	254.9	278.6	235.9
Asian & Other*	217.1	229.6	207.2
Hispanic	283.2	273.6	259.1
All	193.2	214.9	170.4

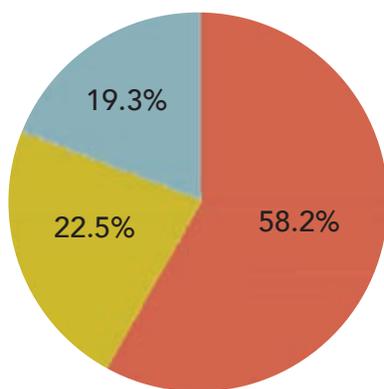
\* Note: Asian & Other is the combination of the following race groups, regardless of Hispanic or Latino origin:

- Asian Alone
- American Indian & Alaska Native Alone
- Native Hawaiian & Other Pacific Islander Alone
- Some Other Race Alone
- Two or More Races

The poverty rate of Area C is lower than that of Houston, but higher than that of State. The poverty rate among minorities in Houston is higher than that of Texas. In Houston and in Area C, the rates of poverty are two to three times higher for minorities than for White non-Hispanics.

In Area C, the poverty rates among Hispanic residents (283.2 per 1,000 population) is higher than for the same groups in Houston as a whole, and the State of Texas.

### Ratio of Income to Poverty Level in Area C



- 200% of Poverty Line and Above
- Above the Poverty Line but less than Twice Poverty
- Below Poverty Line

Many residents in Area C have annual earnings at least two hundred percent or more above the poverty line (58.2%). The average household income for Area C is \$82,726 compared to \$70,029 in the City of Houston. The average household income for the area should be interpreted with caution because about a fifth of the residents in Area C (approximately 190,000) live below the poverty line.

Neighborhoods where at least 20 percent of residents are living below the poverty level are considered impoverished communities (U.S. Census Bureau, 2011). Of the 37 neighborhoods in Area C, 16 are considered impoverished. More than 320,000 people live in these impoverished communities in Area C. Two of these neighborhoods (Carverdale and Downtown) are considered to be extremely impoverished, where at least 40 percent of residents live below the poverty line (U.S. Census Bureau, ACS, 2007-2011).

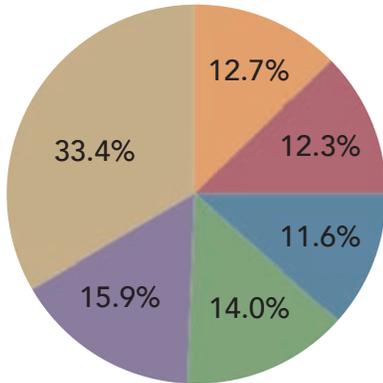
Data Source: American Community Survey (ACS) 2007-2011

# Income and Benefits

According to the U.S. poverty guidelines for 2013, the annual income for a family of four living at 100 percent of the federal poverty threshold is \$23,550 (U.S. Department of Health and Human Services, 2013).

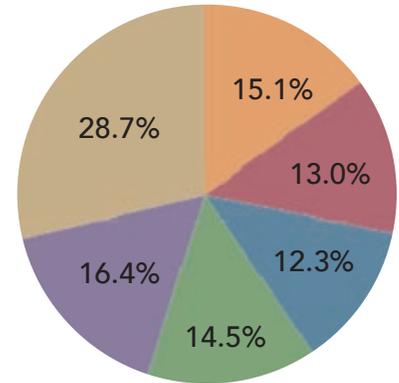
## Income Among Households (In 2011 Inflation-Adjusted Dollars)

Area C



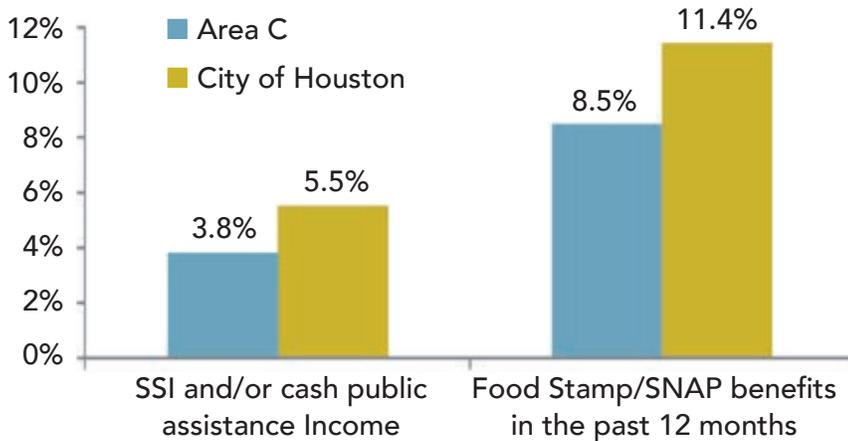
- Less than \$15,000
- \$15,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 and above

City of Houston



Compared to the City of Houston, a higher proportion of residents in Area C earned \$75,000 and above annually. This represents over one-third (33.4%) of the population in Area C. The annual income of the majority of residents in Area C exceeds the poverty threshold.

## Households Receiving Government Benefits



Compared to the City of Houston, lower proportions of households in Area C received benefits for Supplemental Security Income (SSI) / Cash Public Assistance and Food Stamp/Supplemental Nutrition Assistance Program (SNAP).

Note: Households are counted twice if they receive both Supplemental Security Income (SSI) and cash public assistance.

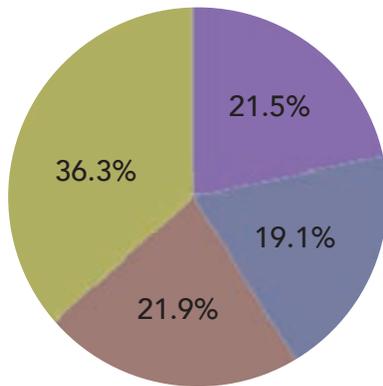
Data Source: ACS, 2007-2011

## Education

“Educational attainment refers to the highest level of education an individual has completed” (U.S. Census Bureau, 2013). The Center for Disease Control and Prevention (CDC, 2011a) Health Disparities and Inequalities Report found striking disparities exist in education and poverty among the U.S. adult population. Analysis on low income families showed that non-high school graduates earned less than others living below the federal poverty level (Poverty Income Ratio <100%) (CDC, 2011a).

Among the 16 neighborhoods that are considered impoverished in Area C, up to 60 percent of the adult population (25 and over) have less than a high school education. Of the neighborhoods in Area C, Carverdale, Downtown, Langwood, Fourth Ward, Gulfton, Northside Village, and Fondren Gardens had the highest proportions of adults who did not finish high school (between 30 and 60 percent).

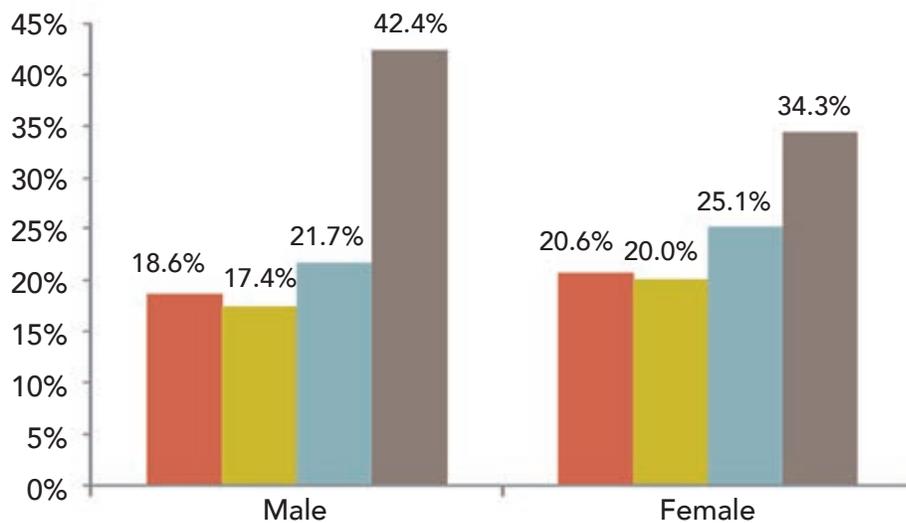
### Educational Attainment for Area C



- Less than high school graduate
- High school graduate (includes equivalency)
- Some college, associate's degree
- Bachelor's degree or higher

In Area C, more than one-third of adults (25 and older) have a bachelor's degree or higher, which is higher than the corresponding rate for City of Houston. More than one-fifth of adults in Area C have less than high school education, compared to one-fourth of adults in the City.

### Educational Attainment for Area C (By Gender)



- Less than high school graduate
- High school graduate (includes equivalency)
- Some college, associate's degree
- Bachelor's degree or higher

In Area C, a slightly higher proportion of females than males (age 25 and older) have not completed a high school education.

Data Source: ACS, 2007-2011

# Education

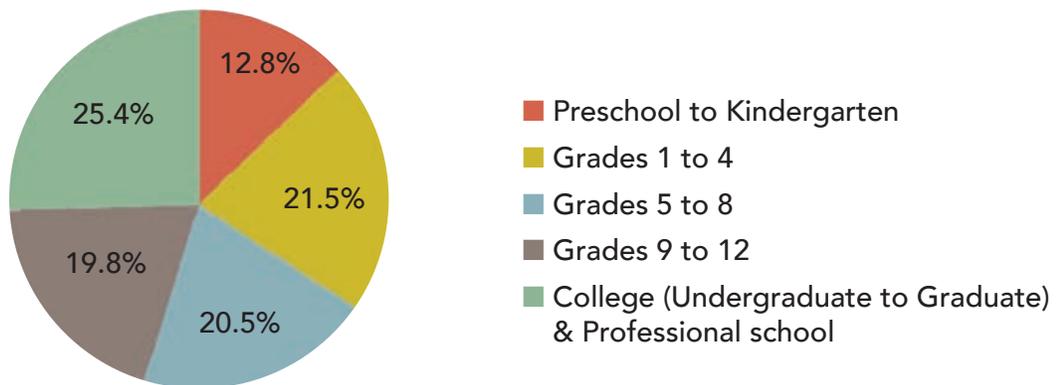
## Educational Attainment for Area C (By Poverty Status)

Education Level	Income in the Past 12 Months	
	Below Poverty	At or Above Poverty
Less than High School Graduate	49.6%	17.2%
High School Graduate or Equivalent	26.9%	18.1%
Some College, Associate's Degree	20.6%	23.9%
Bachelor's Degree or Higher	12.1%	40.8%

Note: The estimates above may not add to 100% because of the difference between the population for whom poverty status is known and the total population.

When comparing educational attainment by income status for those living in poverty, the largest difference is found between non-high school graduates and those with a bachelor's degree or higher. In Area C, of those living below the poverty line, about half have not completed high school (49.6%) and 12.1 percent have earned a bachelor's degree or higher. Among those living at or above the poverty line, over 40 percent have earned a bachelor's degree or higher.

## School Enrollment for Area C

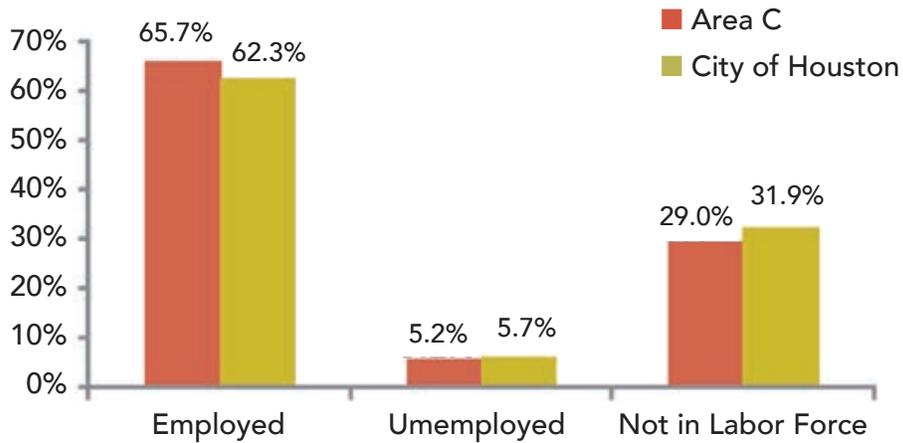


Of those currently enrolled in school in Area C, little more than one-quarter (25.4%) have completed high school and are enrolled in higher education. In City of Houston, 23.2% of residents are enrolled in college and professional school.

Data Source: ACS, 2007-2011

# Employment Status and Occupational Categories

## Employment Status for Area C



### Similar to the City of Houston:

- ◆ Almost two-thirds of the residents (age 16 and above) in Area C are employed and about 37.2 percent of the employed residents work in management, business, science, or art positions compared to about 32.5 percent in the City of Houston.
- ◆ Residents (age 16 and above) in Area C who are unemployed or not considered part of the work force comprise 34.2 percent of the population compared to 37.6 percent in the City of Houston.
- ◆ Compared to one-fourth of the employed population (25.6%) in the City, about one-fifth of Area C employed residents (20.6%) hold positions in physically laborious or hazardous occupations such as construction, maintenance, natural resources, production and material moving.

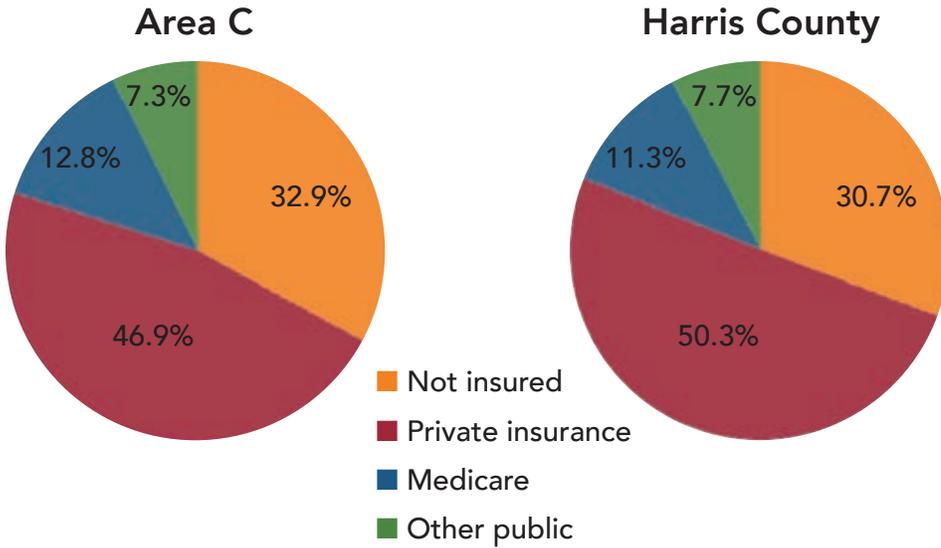
## Occupation Types



Data Source: ACS, 2007-2011

# Health Insurance

## Type of Health Insurance



Starting in 2014, the Affordable Care Act started providing more affordable coverage, which is expected to result in increased access to care by decreasing health care cost, by offering free recommended preventive services, and by providing more health insurance options. (The White House, n.d.)

Note: Other public health insurance types do not include Harris Health Financial Assistance Program (previously called Gold card) recipients.

A smaller proportion of residents in Area C have private health insurance coverage compared to Harris County (46.9% vs. 50.3%). Approximately 20 percent are on Medicare or other public insurance option, and about one-third of residents in Area C are uninsured. The most common reason for residents in Area C and Harris County being uninsured is the insurance cost.

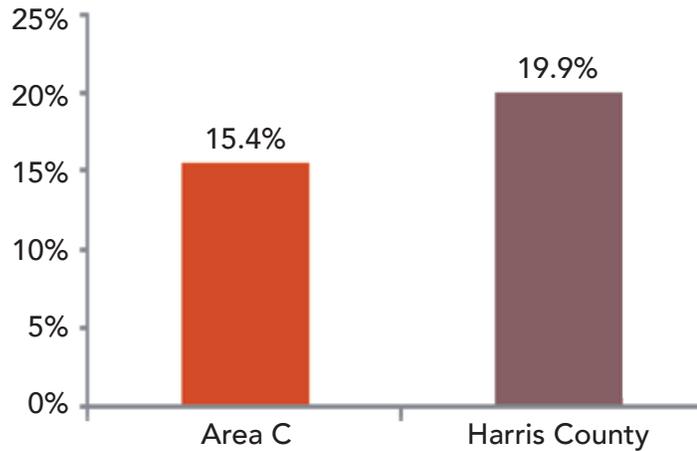
## Reasons for not being Insured



Data Source: HHS, 2010

## Medicaid

### Medicaid Enrollees 65 years and Older

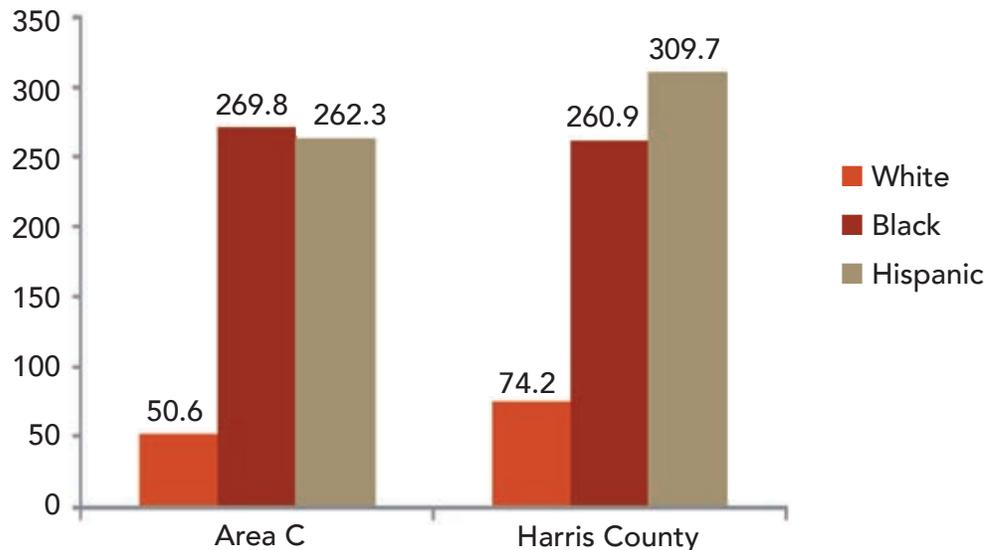


Around 15 percent of all adults, 65 years and older in Area C were enrolled in Medicaid, compared to 19.9 percent in Harris County during the 2012 state fiscal year (SFY).

For those 65 years and older, Blacks in Area C had the highest rate of Medicaid enrollment followed by Hispanics. The lowest rates were among Whites. Because of their age, these enrollees were also eligible for Medicare.

For each racial/ethnic group, rates of enrollment were higher in Harris County than Area C, except among Blacks. In Area C, the rate of enrollment among Black residents 65 years and older was 269.8 per 1,000 individuals compared to 260.9 in Harris County.

### Medicaid Enrollment for 65 years and Older By Race/Ethnicity (Rates per 1,000 Individuals)

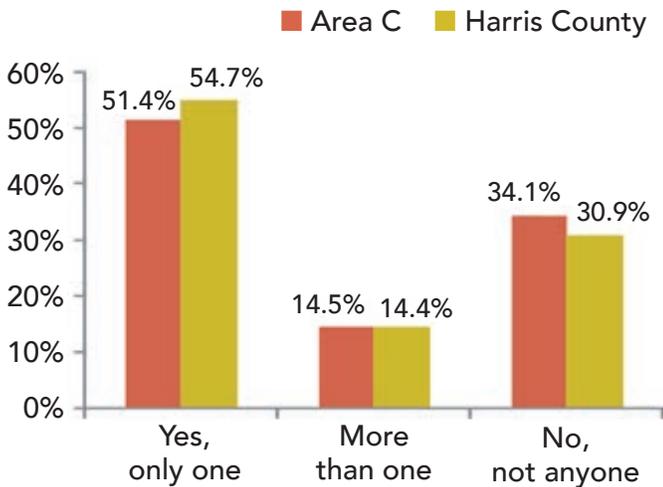


Data Source: Office of Strategic Decision Support, Health and Human Services Commission, SFY 2012

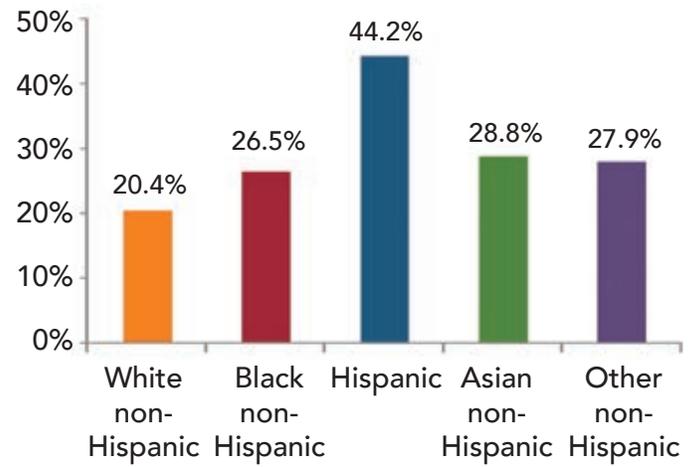
# Access to Care

Factors such as having a regular medical care and health insurance coverage affect the likelihood of accessing preventive care (CDC, 1998). According to Healthy People 2020 (2013a), these factors contribute to having better health outcomes, fewer disparities and lower associated healthcare cost.

## Personal Doctor or Health Care Provider

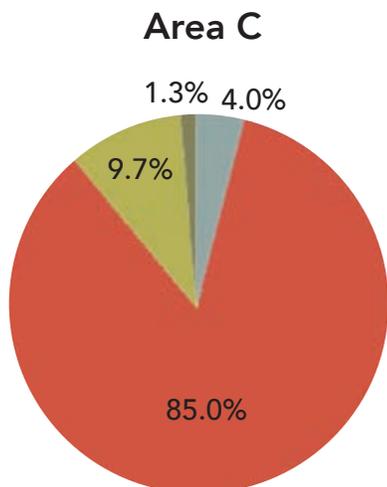


## No Personal Doctor by Race/Ethnicity for Harris County

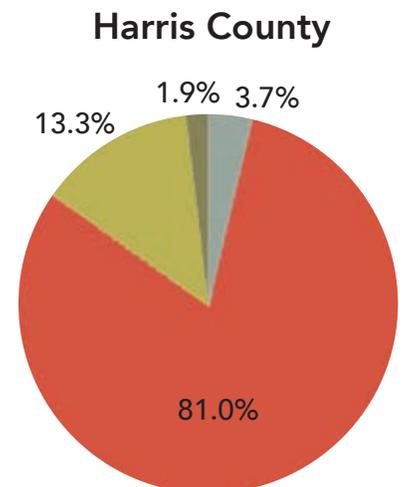


More than a third (34.1%) of residents in Area C were not currently receiving care by a personal doctor or a health care provider as compared with 30.9% in Harris County. In Harris County, higher proportions of Hispanics reported lack of personal doctor as compared with other racial/ethnic groups. For those that did access a health care, approximately 85 percent spent thirty minutes or less traveling to a provider location.

## Travel Time to Place of Care



- Never go to the doctor
- Less than 30 minutes
- 31 minutes to 60 minutes
- More than 60 minutes



Data Source: HHS, 2010

## Summary and Recommendations

### Summary

- A majority of the 1,069,865 residents in Area C are relatively young, about half are under the age of 35. Nearly half of the population in Area C are of Hispanic or Latino descent.
- The average household income is approximately \$82,700 and 37.2 percent of residents hold management, business, science and art positions. However, aggregating higher income areas with many impoverished areas results in an inflated mean household income, which may mask patterns of material deprivation within some Area C neighborhoods.
- About 34 percent of residents are either unemployed or not considered part of the work force, and 12.7 percent earned less than \$15,000 annually.
- More than one-fifth of the residents in Area C have not graduated high school (21.5%). Among those living below the poverty line, about half have not completed high school (49.6%).
- Poverty distribution shows that the rate of poverty is highest amongst Hispanics, followed by Blacks.
- Less than half of the residents have private health insurance coverage (46.9%), approximately 20 percent are on Medicare or some other public insurance option, and over one-third are uninsured.

### Recommendations

#### At the Individual Level:

- Education, skill building and job training are some of the primary areas that need to be emphasized.
- Families with children need to reiterate the importance of education and provide long term engagement and support for their children’s schooling.

#### At the Organizational Level:

- Culturally relevant and evidence-based programs aimed at poverty reduction, enhancement of income and increasing education levels are needed in neighborhoods where at least 20 percent of residents live below the FPL.
- Active engagement of local political representatives and community leaders to work towards improving socio-economic conditions should be sought.
- Vigorous efforts to disseminate accurate information about the Affordable Care Act (ACA) in the community by local stakeholders should be promoted. Assistance in ACA enrollment for obtaining medical coverage for uninsured residents by local organizations should be provided.
- Provide education to the community on how to use new insurance plan.

#### At the Policy Level:

- Engagement, continual discussion, identification of sustainable solutions and implementation of evidence- based strategies to reduce inequality and improve quality of life among residents of Area C need to be conducted.



## Health Conditions and Quality of Life

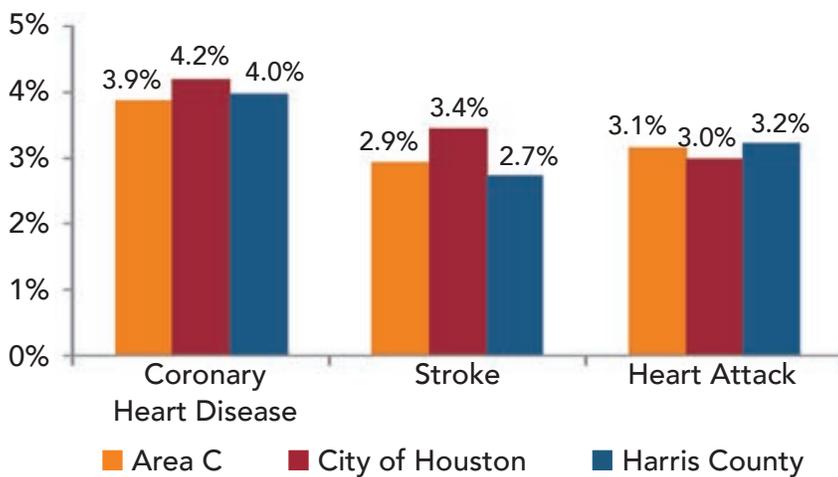
- ◆ Cardiovascular Diseases
- ◆ High Blood Pressure
- ◆ Overweight and Obesity
- ◆ Diabetes
- ◆ Sexually Transmitted Diseases
- ◆ Communicable Diseases
- ◆ Mental Health
- ◆ Quality of Life

# Cardiovascular Diseases

Cardiovascular diseases, also called heart diseases include heart attack, stroke, heart failure and coronary heart disease. Coronary heart disease (CHD) is a result of coronary artery disease (CAD). In the U.S., CAD is the most common type of heart disease and the leading cause of death (CDC, 2013a). CHD occurs when plaque builds up in the coronary arteries, which supply oxygen-rich blood to the heart. A blockage in these arteries can lead to a heart attack (American Heart Association, 2013).

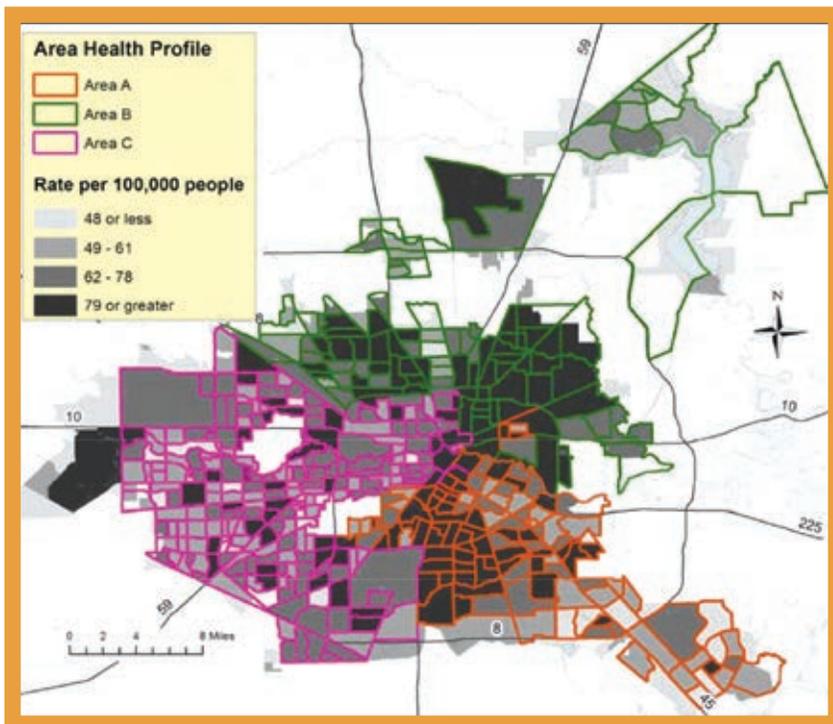
Stroke is the fourth leading cause of death in the U.S. and occurs when a blood clot or hemorrhage interrupts the blood supply to the brain (National Stroke Association, 2013).

## Has a doctor, nurse or other health professional EVER told you that you had coronary heart disease, stroke, heart attack?



According to CDC, coronary heart disease kills more than 385,000 people annually. Every year about 715,000 Americans have a heart attack, and strokes kill 130,000 Americans annually. (CDC, 2014a)

The proportion of residents in Area C that had coronary heart disease (3.9%), stroke (2.9%), and heart attack (3.1%) was comparable to Houston and Harris County.



The figure on the left shows out-of-hospital cardiac arrest rate for census tracts in Houston area. The study indicated that individuals at highest risk of out-of-hospital cardiac arrest were found to be older African Americans of low income or education level, and to be older. (Raun et al, 2013)

The cardiovascular disease data presented above may have been underestimated with wider confidence intervals as compared to other national Statistics such as BRFSS.

Empirical Adjusted Out-of-Hospital Cardiac Arrest per 100,000 population for 2004 (Raun et al, 2013)

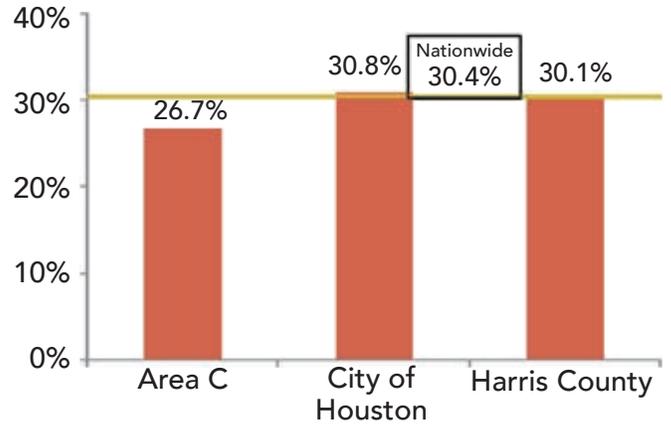
Data Source: HHS, 2010

## High Blood Pressure

High blood pressure (HBP) occurs when the force of the blood against artery walls is high (CDC, 2012e). High cholesterol results from fat deposits in blood vessels that reduce blood flow in the arteries. “Approximately 1 out of every 6 American adults has high blood cholesterol (CDC, 2012c).” HBP is considered the “silent killer” because just as with high cholesterol, there are often no warning signs or symptoms (CDC, 2012e).

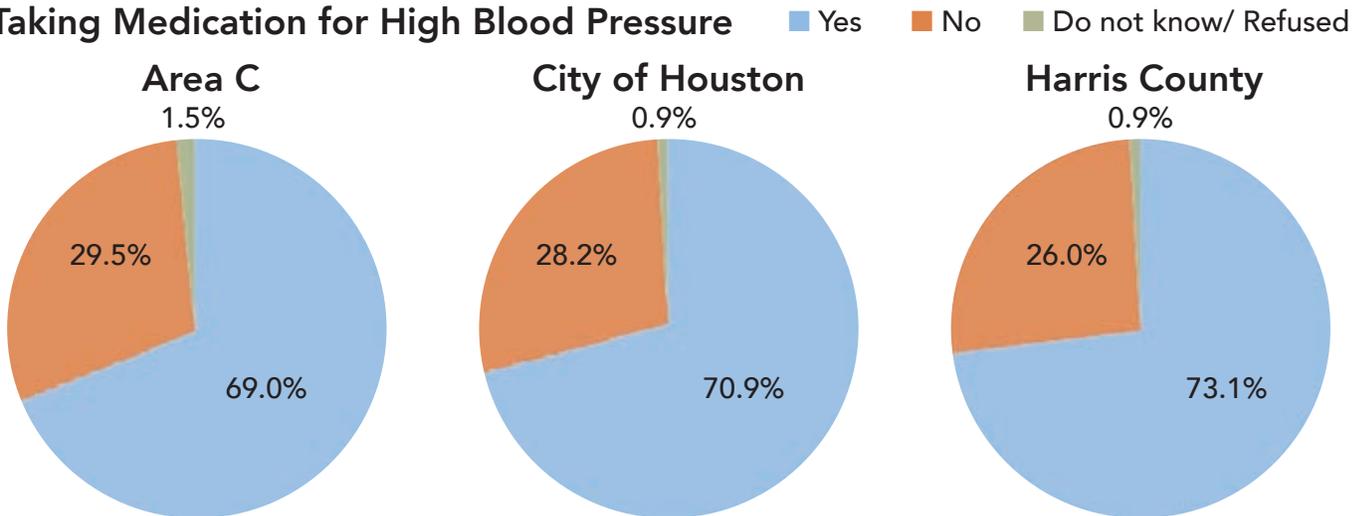
An estimated 68 million adults in the U.S. have high blood pressure. A normal blood pressure level for adults is 120/80 mmHg (CDC, 2013b).

Have you ever been told by a doctor, nurse or other health professional that you had high blood pressure?



A lower proportion of residents in Area C are diagnosed with high blood pressure as compared to the City and County. The City and County rates are comparable with national statistics. According to CDC, about one-third of adults in the U.S. have high blood pressure and only about half (46.5%) of people with high blood pressure have their condition under control. (CDC, 2014b)

### Taking Medication for High Blood Pressure



High blood pressure typically develops over many years, and it affects nearly everyone eventually. Fortunately, high blood pressure can be detected and controlled (Mayo Clinic, 2014). The proportion of residents with diagnosed high blood pressure in Area C that reported taking medication (69.0%) was comparable with the City of Houston (70.9%), but slightly lower than that of Harris County (73.1%). However, the proportion of those who reported not taking medication may be taking other measures to control their high blood pressure.

Hispanic populations have low control rates for high blood pressure, a major risk factor for heart disease and stroke. Also, they have high prevalence of high blood cholesterol, and their diets often are high in salt and saturated fats (CDC, 2014c).

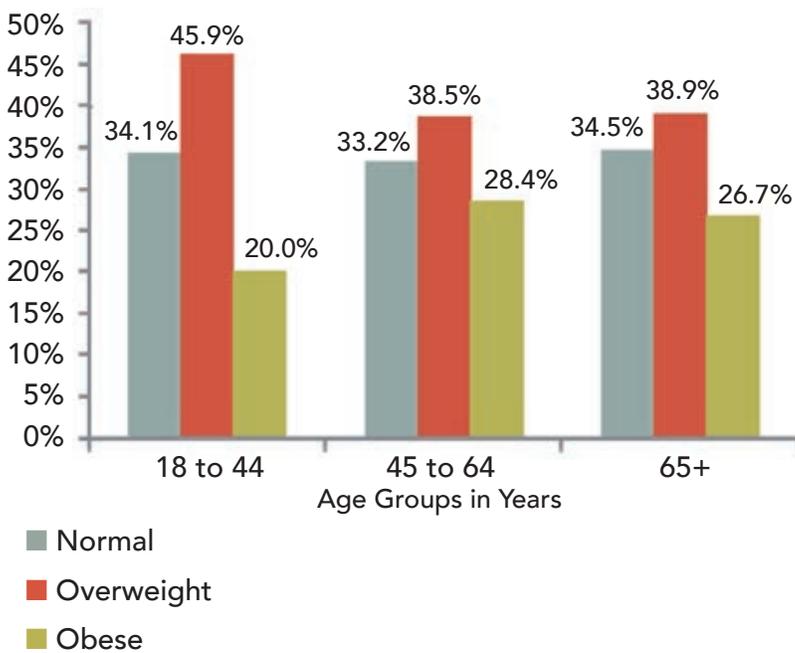
Data Source: HHS, 2010

# Overweight and Obesity

Overweight and obesity are terms used to define ranges of weight that are greater than what is considered healthy for a given person's height (CDC, 2012f). Based on this information, a person's body mass index (BMI) typically provides a reliable indication of body fatness (CDC, 2012f).

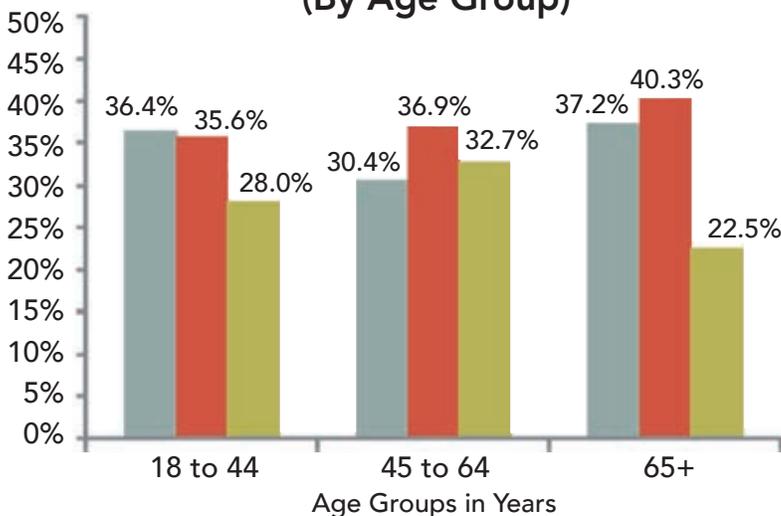
For adults, BMI ranging between 25.0 and 29.9 is considered overweight. A BMI greater than or equal to 30.0 is considered obese. (CDC, 2012f).

## BMI Categories for Area C (By Age Group)



Obesity among American adults is highly prevalent and steadily rising. It increases an individual's risk for health conditions such as diabetes, heart disease, stroke, high blood pressure, certain cancers, depression and a host of other conditions. It is also associated with increased medical cost to the health care system. From 2009-2010, more than two-thirds of U.S. men and women (68.8%) were considered overweight or obese (National Institute of Diabetes and Digestive and Kidney Diseases, 2013), which is slightly higher than Harris County (66.3%).

## BMI Categories for City of Houston (By Age Group)



In Area C, lower proportions of those 18 to 44 years old (34.1%) and 65 and older (34.5%) were considered of normal weight compared to the City of Houston (36.4% and 37.2% respectively). A higher proportion of those 65 and older were considered obese in Area C (26.7%) than those 65 years and older in the City of Houston (22.5%).

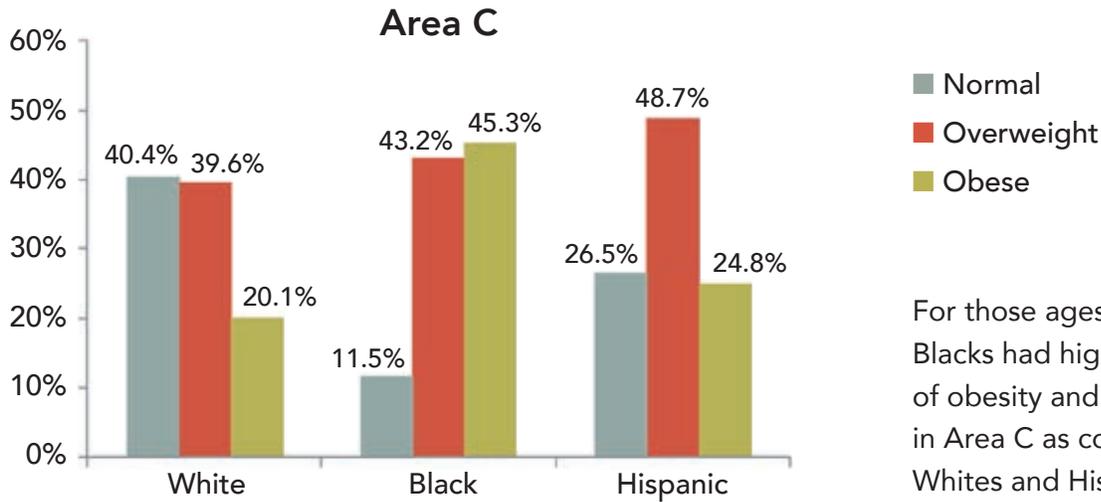
Data Source: BRFSS, 2008-2010

## Overweight and Obesity

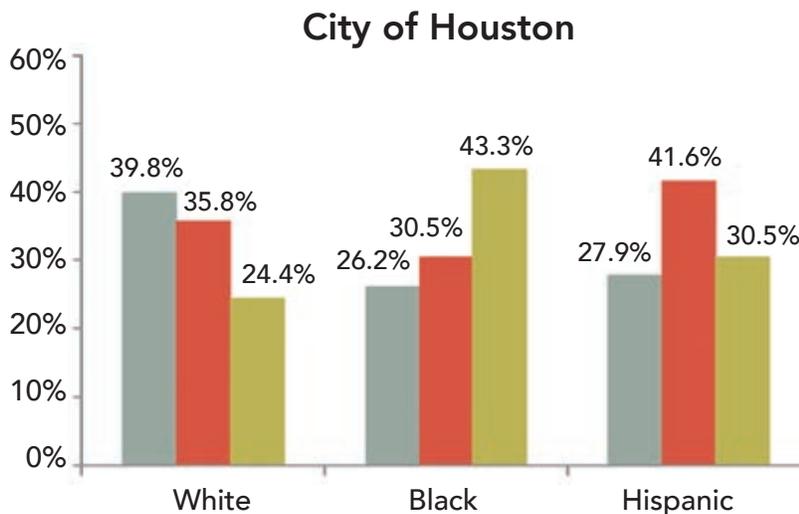
The American Medical Association (2013) declared obesity a disease in June, 2013. Although controversial, this has far reaching implications.

- ◆ Defining obesity as a disease will help highlight the epidemic in the U.S. and spur health insurers to take greater responsibility for treating obesity.
- ◆ It means that the stigma associated with obesity would likely be reduced. It implies that obesity is not simply a result of eating too much and exercising too little. There are factors that are out of a person’s control that can perpetuate obesity in certain populations.
- ◆ However, it shifts the focus away from prevention and drives obesity to a narrower medical model.

### Overweight and Obesity by Race / Ethnicity



For those ages 18 and above, Blacks had higher proportions of obesity and overweight in Area C as compared with Whites and Hispanics.



In both Area C and the City of Houston, higher proportions of Whites were of normal weight during 2008 to 2010.

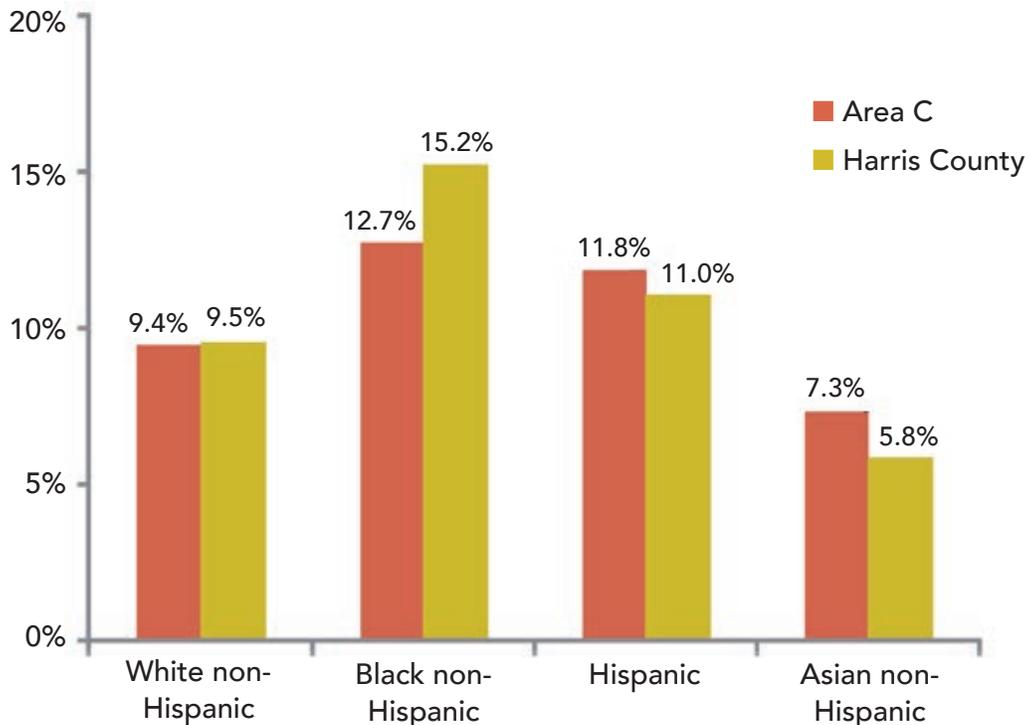
Lower proportions of Black (11.5%) residents living in Area C were of normal weight, compared to Houston (26.2%).

Data Source: BRFSS, 2008-2010

# Diabetes

Diabetes can occur when blood glucose levels are above normal. High blood glucose levels can lead to serious health problems, such as cardiovascular disease and kidney failure (CDC, 2012a). Diabetes is the seventh leading cause of death in the U.S. (CDC, 2012d). Diabetic adults are two to four times more likely to die of heart disease or experience a stroke than non-diabetics. About 70 percent of people with diabetes have high blood pressure, which is a risk factor for cardiovascular disease (CDC, 2012a).

### Diabetes Diagnosis by Health Professional (By Race/Ethnicity)



Higher proportions of Hispanics and Asian non-Hispanics in Area C were told by a healthcare professional that they had diabetes compared to the Harris County average for those racial and ethnic groups.

Type I Diabetes usually occurs in childhood or young adults. It develops when a person is insulin deficient and the body no longer produces insulin (National Diabetes Information Clearinghouse, 2012).

Type II Diabetes develops when a person is insulin resistant, and does not make enough insulin to keep the body's blood glucose levels normal. Type II Diabetes is the most common type of diabetes and can occur at any age (National Diabetes Information Clearinghouse, 2012).

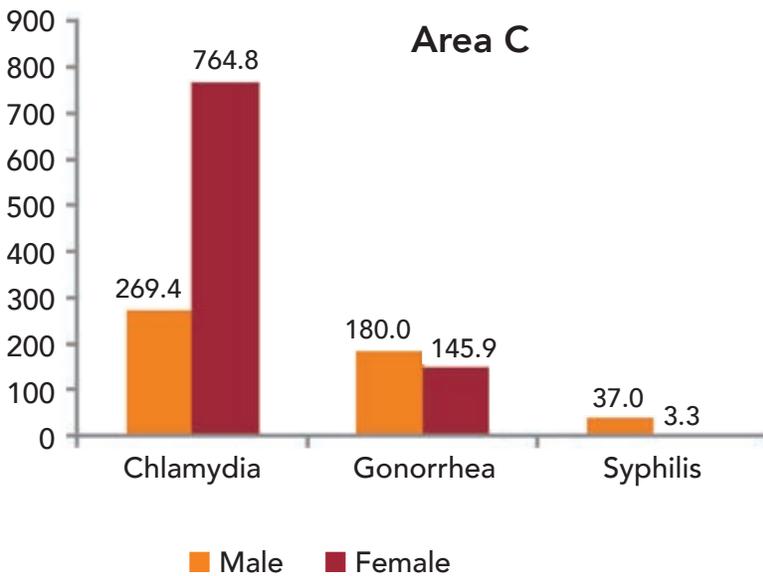
Pre-diabetics should also take preventive measures to avoid developing diabetes, as their blood sugar levels are above normal, but below the classification for diabetes (National Diabetes Information Clearinghouse, 2012).

## Sexually Transmitted Diseases

Chlamydia, gonorrhea, and syphilis are sexually transmitted diseases (STDs) that affect both men and women of all age groups. Chlamydia is the most commonly reported STD in the U.S. and women are more prone to infection than men. When chlamydia is untreated it can lead to serious health problems, including infertility (CDC, 2013d). Gonorrhea can also impact a woman’s ability to have children and has the possibility of spreading to the eyes of newborns during birth from their infected mother (Mayo Clinic, 2013a). Syphilis can spread by sexual contact from person to person via skin or mucous membrane contact (Mayo Clinic, 2013b). Rates of syphilis in the U.S. have been rising since 2000, particularly among men who have sex with men (MSM) (CDC, 2013e).

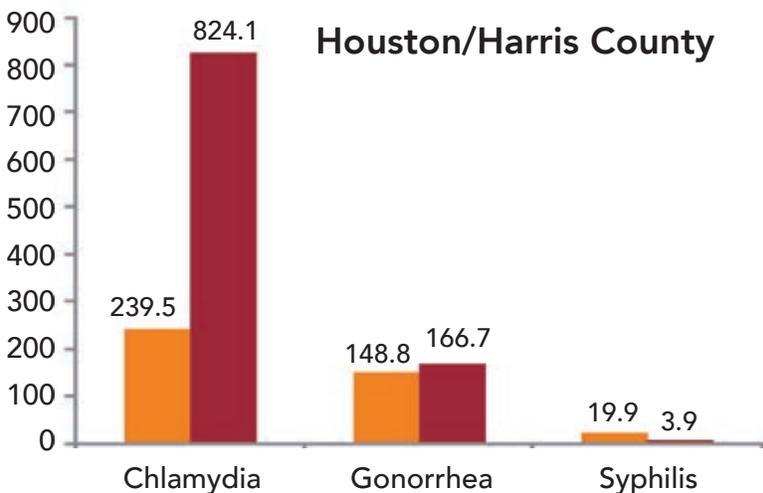
Timely diagnosis and treatment of STDs is recommended to help prevent negative long-term consequences such as the transmission of HIV. Individuals with STDs are at least two to three times more likely to acquire HIV through sexual contact than those uninfected (CDC, 2010).

**Sexually Transmitted Diseases (Rate per 100,000 Population)**



Similar to Houston/Harris County, chlamydia is the most commonly reported STD among women and men in Area C. Rates of reported STD among males in Area C were higher than Houston/Harris County.

For males rates of gonorrhea and syphilis are higher in Area C as compared to Houston/Harris County. Research shows that 63 percent of the reported cases of syphilis are among men who have sex with men (MSM) as per CDC (2013e). In Area C, for every female that has syphilis there are about twelve males with syphilis, and in Houston/Harris County the ratio is about 1:5.



Data Source: Bureau of HIV/STD Prevention, HDHHS, 2012

# HIV/AIDS

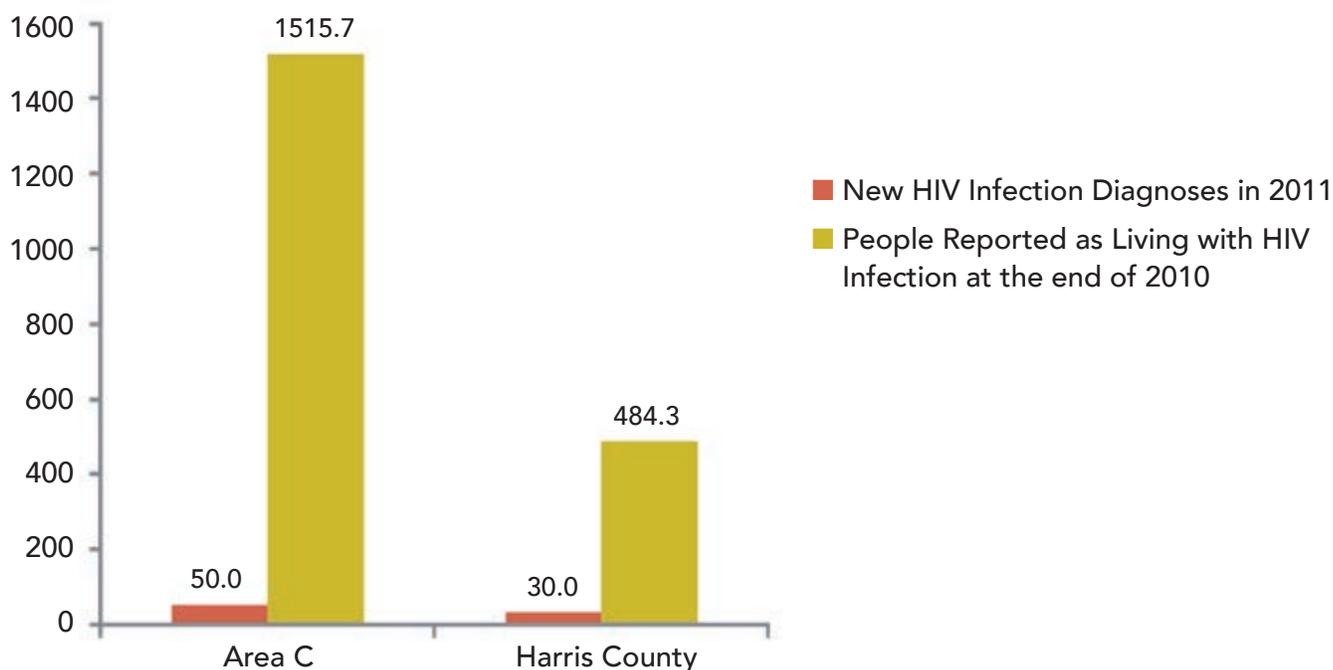
Human Immunodeficiency Virus (HIV) is a lifelong illness that can be transmitted sexually, through contact with infected blood, or from mother to child during pregnancy, childbirth or breast-feeding (Mayo Clinic, 2012).

The virus gradually destroys specific immune system cells, and over time the body becomes unable to fight off infections and diseases (Mayo Clinic, 2012). When this occurs, the HIV infection transitions to acquired immunodeficiency syndrome (AIDS).

## Treatment

Antiretroviral therapy (ART) is used to slow the progression of the disease and helps lower the chance of spreading the infection to others. Today, HIV is considered a chronic condition and a nearly normal life expectancy can be expected for those diagnosed with HIV and treated before the disease is far advanced (CDC, 2013g).

### HIV Infection (Rate per 100,000 Population)

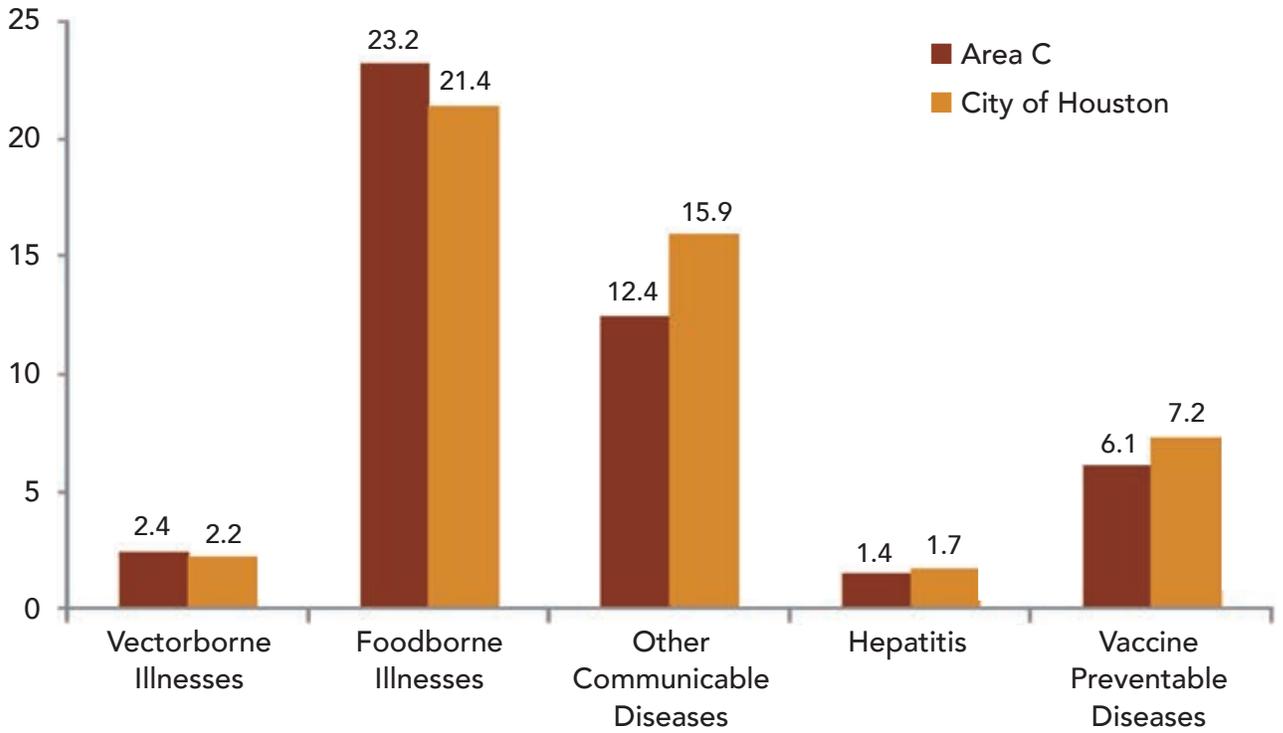


In 2010, the rate of people living with HIV was much higher in Area C than in Harris County (1515.7 per 100,000 population vs. 484.3 per 100,000 population). During 2011, the rate of newly diagnosed cases of HIV infection was 50.0 per 100,000 population in Area C and 30.0 per 100,000 population in Harris County.

Data Source: Bureau of Epidemiology/HDHHS, 2010-2011

## Communicable Diseases

Five Year Average Rate of Communicable Diseases (per 100,000 population)



Note: Disease rates include all Texas notifiable conditions reported between 2008-2012, with the exception of HIV, STDs, and Tuberculosis (TB).

Communicable diseases, also known as infectious or transmissible diseases, can spread from person-to-person, animal to person, or through vectors such as contaminated water, food, insects, or infected objects (Wisconsin Department of Health Services, 2013).

Diseases such as measles, mumps, rubella, pertussis, influenza, and certain forms of hepatitis can be prevented through immunization. Most food borne illnesses can be prevented through proper food handling and cooking.

Area C had communicable disease rates similar to that of City of Houston for vectorborne illnesses (an illness caused by an infectious microbe that is transmitted to people by blood-sucking insects) and hepatitis. In both Area C and Houston as a whole, foodborne illnesses were the most commonly reported communicable diseases, of those presented here. The rate for foodborne illnesses was higher in Area C (23.2 per 100,000 population) than the City of Houston (21.4 per 100,000 population). The rates in Area C were lower for other communicable diseases and vaccine preventable diseases, during 2008 to 2012.

Source: Bureau of Epidemiology/HDHHS, 2008-2012

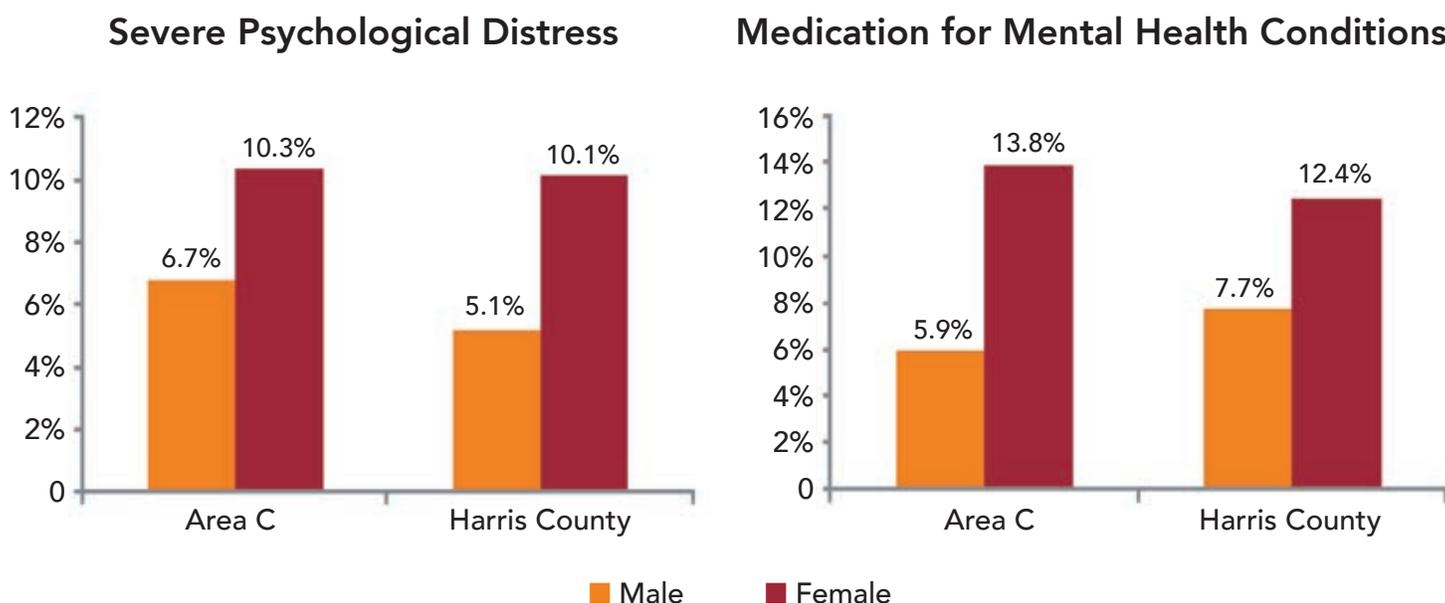
## Mental Health

Mental health is a state of well-being and is an essential component of health (World Health Organization (WHO, 2013)). Several social, psychological, and biological factors determine mental health status (WHO, 2013). Social determinants that support good mental health include adequate housing, safe neighborhoods, equitable jobs and wages, quality education, and equity in access to quality health care (CDC, 2011b).

A consistent association is found between mental health and physical health. Mental illness can affect the occurrence, treatment, and course of many chronic diseases including obesity, asthma, diabetes, cancer and cardiovascular disease (CDC, 2011b).

An estimated 13 million American adults (1 in 17) have a seriously debilitating mental illness (Healthy People 2020, 2013b), and only about 17 percent are considered to be in a state of optimal mental health (CDC, 2011b).

### Psychological Distress and Taking Medication for Mental Health Problems (By Gender)



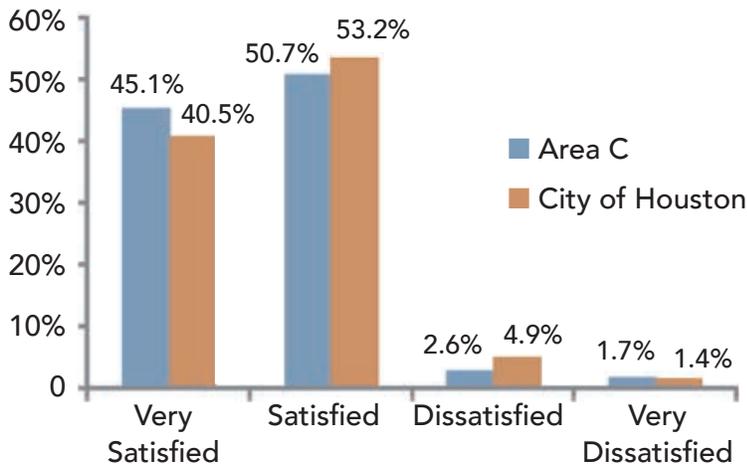
Slightly higher proportions of both males (6.7%) and females (10.3%) in Area C experienced severe psychological distress during the past 12 months compared to Harris County (5.1% and 10.1% respectively). Female residents in Area C reported they had severe psychological distress 50% more often than male residents in Area C. A higher proportion of males (6.7%) in Area C experienced severe psychological distress compared to males in Harris County, but fewer (5.9%) reported taking prescription medication, such as antidepressants or sedatives, for an emotional or personal problem.

When asked "do you feel you might need to see a healthcare professional for problems with mental health, emotions, nerves, or use of alcohol or drugs in the past 12 months", approximately 13 percent of males and 22 percent of females in Area C responded yes, compared to males (13.4%) and females (19.5%) in Harris County. However, in Area C and Harris County, fewer residents reported they have visited a healthcare professional for these types of problems.

Data Source: HHS, 2010

## Quality of Life

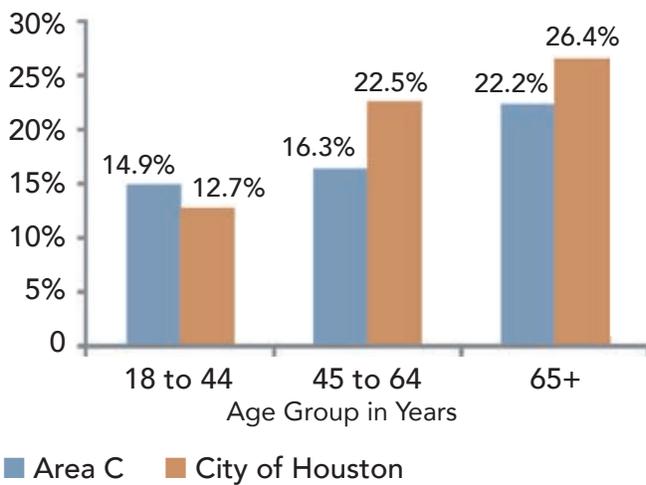
### General Satisfaction with Life



Quality of Life (QOL) is a multi-dimensional concept that includes domains of physical and psychological health, social relationships, and environment.

Similar to the City of Houston, the majority of residents in Area C (95.8%) reported being either satisfied or very satisfied with life.

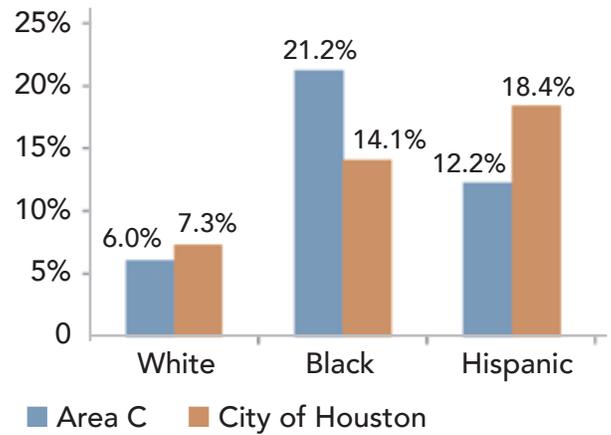
### General Health Status “Fair to Poor” (By Age Group)



In the City of Houston and Area C, higher proportions of older adults (65 and above) reported ‘fair to poor’ health during 2008 to 2010. A smaller proportion of these residents lived in Area C (22.2%) than the City of Houston (26.4%).

A higher proportion of residents between 18 to 44 years old (14.9%) in Area C also reported fair to poor general health compared to those of 18 to 44 years old in the City of Houston (12.7%).

### Lack of Social and Emotional Support



In Area C, a higher proportion of Blacks reported either rarely or never having social or emotional support, as compared to other racial/ ethnic groups.

A lower proportion of White and Hispanic residents in Area C reported a lack of social and emotional support (6.0% and 12.2%) compared to the same racial/ethnic groups in the City of Houston (7.3% and 18.4% respectively).

Racial/ethnic differences in certain estimates of mental health and quality of life may not reflect the true picture. Many first generation immigrants understand these survey questions differently from native born Americans due to many reasons.

Data Source: BRFSS, 2008-2010

# Summary

- Prevalence of coronary heart disease, stroke and heart attack in Area C was comparable with the City and County.
- Area C has a lower prevalence of high blood pressure compared to the City of Houston and Harris County.
- Almost half of the Black residents in Area C were obese.
- Reportable STDs, such as gonorrhea and syphilis are higher in Area C than the rest of Houston/ Harris County.
- In 2010, the rate of HIV infection was 1515.7 per 100,000 and in 2011, the rate of newly diagnosed cases of HIV infections in Area C (incidence) was 50.0 per 100,000.
- A majority of residents reported being either satisfied or very satisfied with their lives.
- Of those who reported poorer mental health status, higher proportions of residents in Area C experienced severe psychological distress than residents in Harris County. Women appear to experience more episodes of severe psychological distress (approximately 10%) than men.
- Higher proportions of residents ages 18 to 44 in Area C reported that their general health was fair to poor than in the City of Houston.

## Recommendations

### At the Individual level:

- Reduce modifiable risk factors to avoid developing chronic heart disease.
- Promote bystander cardiopulmonary resuscitation (CPR) to prevent cardiovascular arrests.
- Adhere to a regular annual physical exam to ensure wellness and good health.
- Take preventive measures to help prevent diabetes by maintaining a normal blood glucose level, eating healthily, remaining physically active, regularly monitoring blood pressure and cholesterol levels, and regularly screening for diabetes (CDC, 2012a).
- The risk of heart attacks and strokes can be lowered by making healthy lifestyle choices in diet and exercise, and by taking prescribed medication (Center for Disease Control and Prevention, 2013b).
- Providers and local organizations should realign health care services targeting identified health conditions as priority issues.

### At Organizational level:

- Agencies may integrate services across mental health and physical health services to improve access and earlier intervention.
- Increase use of evidence-based chronic disease education in culturally diverse settings used by residents.

### At the Policy Level:

Strategic approaches should be developed and implemented to address health conditions such as obesity, high blood pressure and diabetes by:

- Enhancing opportunities to access healthy food choices.
- Improving food item options to make the healthy choice the easier choice.
- Improving public safety and creating opportunities to be more active at schools, parks, community centers, work sites.
- Improving access to screenings and education.
- Increase availability of mental health services for low income residents.
- Promoting community design that provides opportunities for healthy eating and active living.
- Promoting “health in all policies”, a collaborative approach that integrates and articulates health considerations into policy making across sectors, and at all levels, to improve the health of all communities and people.

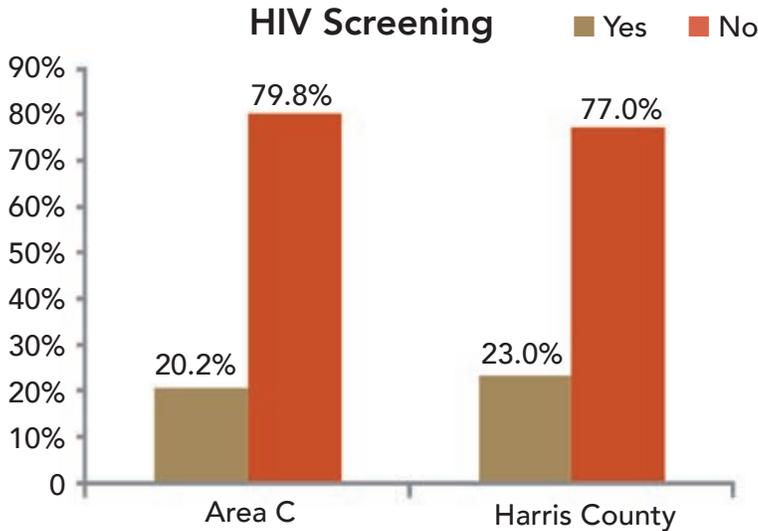


## Health Behaviors

- ◆ HIV Screening
- ◆ Cancer Screening
- ◆ Smoking
- ◆ Alcohol
- ◆ Fruits and Vegetables/ Physical Activity

# HIV Screening

Health screenings are tests that look for diseases before there are symptoms, and can find diseases early when they are easier to treat (Medline Plus, 2013a). Increasing HIV screening can help foster earlier detection of HIV infection, identify and counsel persons with unrecognized HIV infection, link them to clinical and prevention services, and further reduce perinatal transmission of HIV (CDC, 2006).



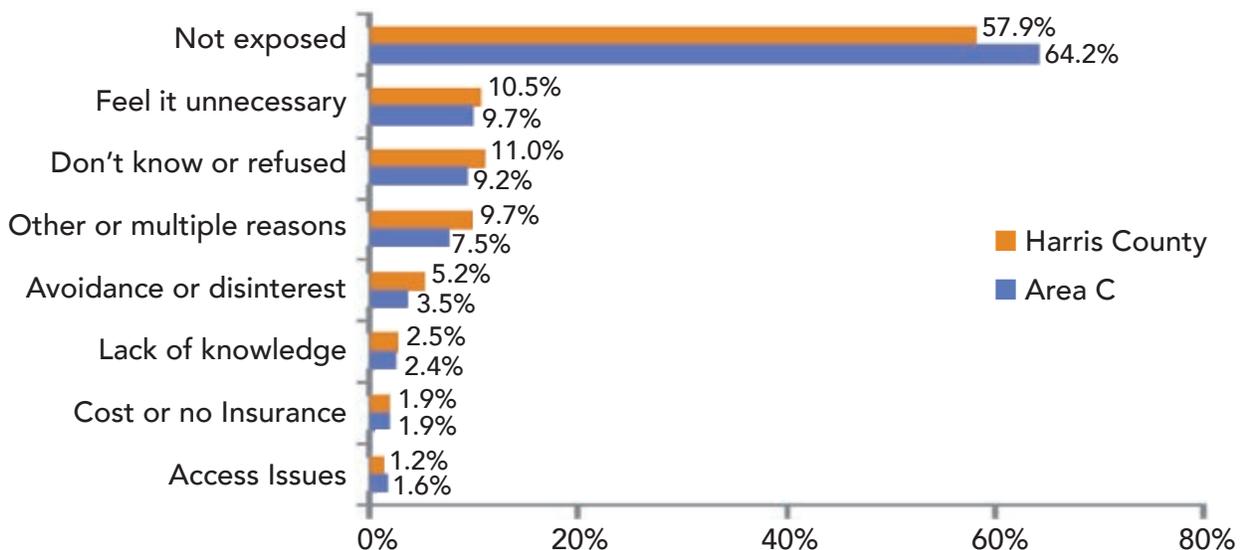
Residents in Area C (20.2%) reported receiving an HIV screening slightly less often than those in Harris County (23%).

The most common reasons for not getting an HIV test in Area C 1) Most felt they had not been exposed to HIV (64.2%), 2) Some felt testing was unnecessary (9.7%).

A total of 5.9% of residents in Area C reported access, associated cost, or lack of knowledge as barriers to HIV testing, compared to a total of 5.6% residents reporting these reasons in Harris County.

During 2010, most adults in Area C and Harris County did not receive a HIV screening (79.8% vs. 77.0%). According to a recent CDC analysis, the proportion of adults who had ever been tested for HIV increased from 37 percent in 2000 to 45 percent in 2010.

## Reasons Never Tested for HIV



Data Source: HHS, 2010

# Cancer Screening

## Breast cancer

Breast cancer occurs when abnormal cell growth forms in the breast tissue that can invade surrounding tissues or spread to other areas of the body. Nationally, 211,731 women were diagnosed with breast cancer, and there were 40,676 related deaths from the disease in 2009 (CDC, 2013f). The age adjusted cancer mortality rate in Harris County from 2006-2010 due to breast cancer was in the range of 11.8-14.2 per 100,000 population (Texas Cancer Registry [TCR], 2013). White women are slightly more likely to develop breast cancer than African American, Hispanic, and Asian women. But African American women are more likely to develop more aggressive, more advanced-stage breast cancer that is diagnosed at a young age. African American women are also more likely to die from breast cancer. Some of these differences in outcomes may be due to less access to mammography and lower quality medical care, as well as various lifestyle patterns (eating habits and weight issues for example) that are more common in some ethnic groups than in others (Breast Cancer, 2014).

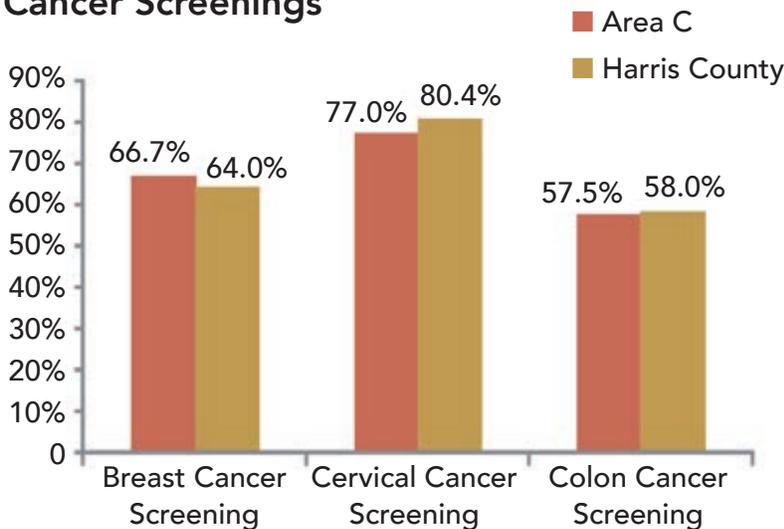
## Colorectal Cancer

Colorectal cancer refers to colon cancer, cancer of the large intestine (colon), and rectal cancer which occurs at the end of the colon (Mayo Clinic, 2011b). It accounts for nine percent of all cancer incidences (new cases) (Haggard & Boushey, 2009), and is the third leading cause of cancer deaths among men and women (American Cancer Society, 2011). In 2009, there were 136,717 colorectal cancer diagnoses and 51,848 deaths in the U.S. (CDC, 2012i). In 2013, it was estimated that there were 102,480 new cases of colon cancer and 40,340 new cases of rectal cancer (American Cancer Society, 2012). The age adjusted cancer mortality rate in Harris County from 2006-2010 due to colorectal cancer was in the range of 11.2-13.7 per 100,000 population (TCR, 2013).

## Cervical Cancer

All women are at risk for cervical cancer, which is a type of cancer that occurs in the cells of a woman’s cervix. It is prevalent in women over age 30 and the most common cause of the disease is the human papillomavirus (HPV) (CDC, 2012h). Every year about 12,000 women in the United States get cervical cancer (CDC, 2012h). In 2013, there have already been 12,340 new cases of cervical cancer and 4,030 related deaths (National Cancer Institute, n.d.). The age adjusted cancer mortality rate in Harris County from 2006-2010 due to cervical cancer was in the range of 2.4-3.4 per 100,000 population (TCR, 2013).

## Cancer Screenings



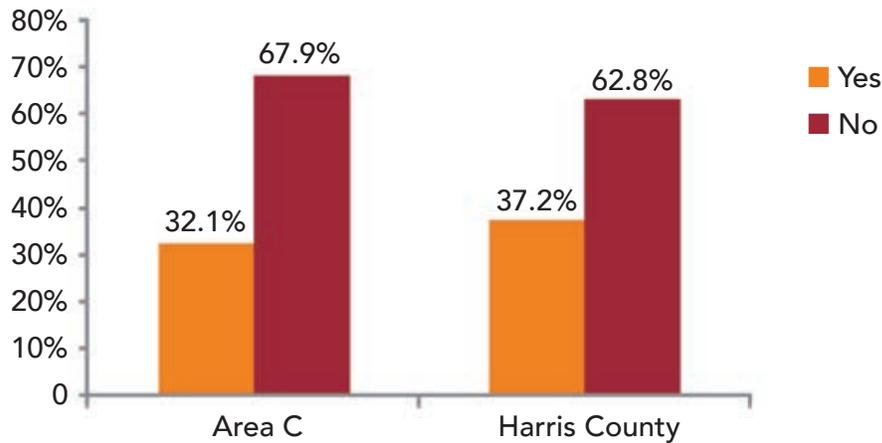
The proportion of reported breast cancer screenings among women 40 to 74 years was higher in Area C than Harris County. Reported screenings for cervical cancer in women among 21 years and older and colorectal cancer among 50 years and older were slightly lower among Area C residents than Harris County.

Data Source: HHS, 2010

# Smoking

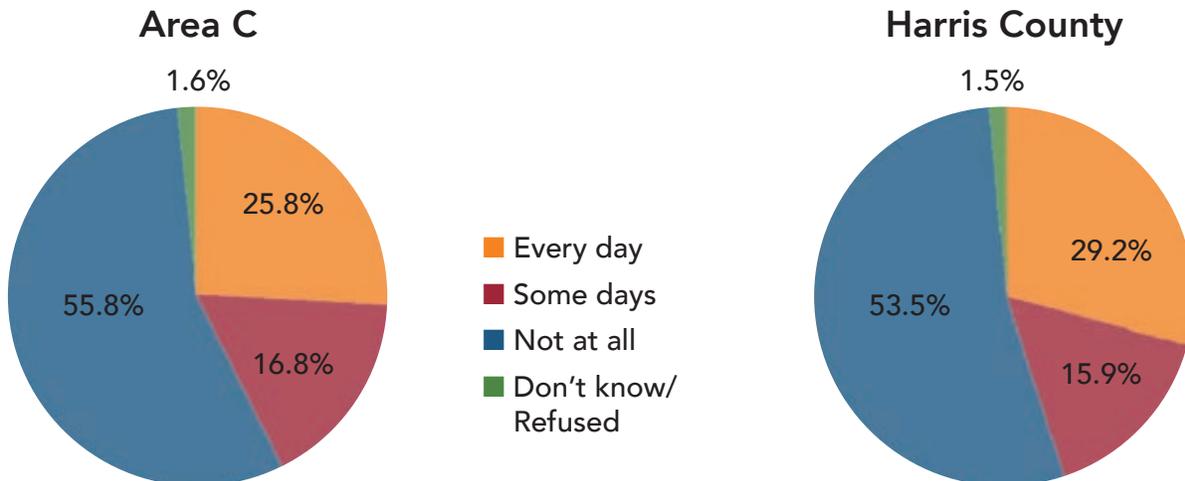
Individuals who smoke cigarettes and are exposed to tobacco smoke (second-hand) are at risk of premature death from chronic diseases such as lung cancer, ischemic heart disease and chronic obstructive pulmonary disease. National data show 90 percent of lung cancer cases result from cigarette smoking. Every year about 3,000 non-smokers die from lung cancer due to secondhand smoke in the United States. Smoking avoidance and cessation programs are two important measures to reduce the risk of developing lung cancer (CDC, 2013c).

## Altogether, have you smoked at least 100 or more cigarettes in your entire lifetime?



In Area C, lower proportions of adults (18 years and older) (32.1%) reported that they smoked at least 100 or more cigarettes in their entire lifetime than those in Harris County (37.2%). When asked how often they smoked, 25.8 percent of Area C smokers reported that they smoked every day, and 16.8 percent reported that they smoked some days compared to 29.2 percent and 15.9 percent respectively in Harris County.

## Do you now smoke cigarettes every day, some days, or not at all?

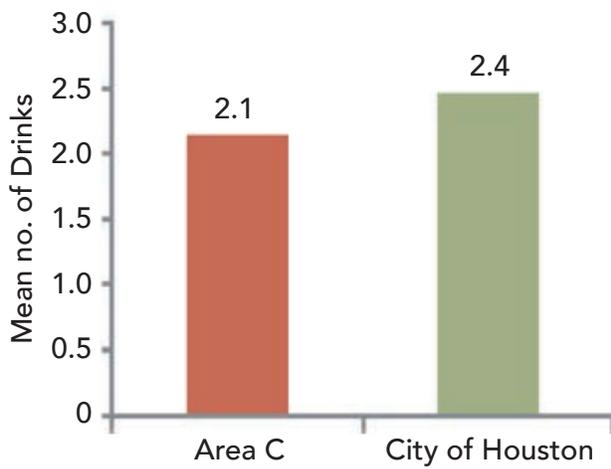


Data Source: HHS, 2010

## Alcohol Consumption

Excessive alcohol use can increase the risk of health problems such as injuries, violence, liver diseases, and cancer. Binge drinking is a common form of excessive alcohol use in the U.S., and refers to consuming five or more alcoholic beverages for men and four or more for women within about two hours (CDC, 2012b). According to the 2010 Dietary Guidelines for Americans, a moderate level of alcohol consumption per day is one drink for women and two drinks for men (Mayo Clinic, 2011a).

**Average Number of Alcoholic Drinks During Past 30 Days, (on the occasions when they drank)**



**Largest Number of Drinks on Any Occasion**



Residents in Area C consumed a fewer number of alcoholic drinks during the past 30 days when they drank, and a fewer number of alcoholic drinks on any given occasion as compared to those in the City of Houston.

**Note:** *There may be a tendency to respond to questions on alcohol consumption and other sensitive areas in a socially desirable manner. This may result in possible underreporting and thus, underestimation of these estimates.*

Examples of one drink include (Mayo Clinic, 2011a):

<u>Alcoholic Beverage</u>	<u>Equivalency (fluid ounces)</u>
Can of Beer	12
Glass of Wine	5
Shot of Distilled Spirits or Liquor	1.5

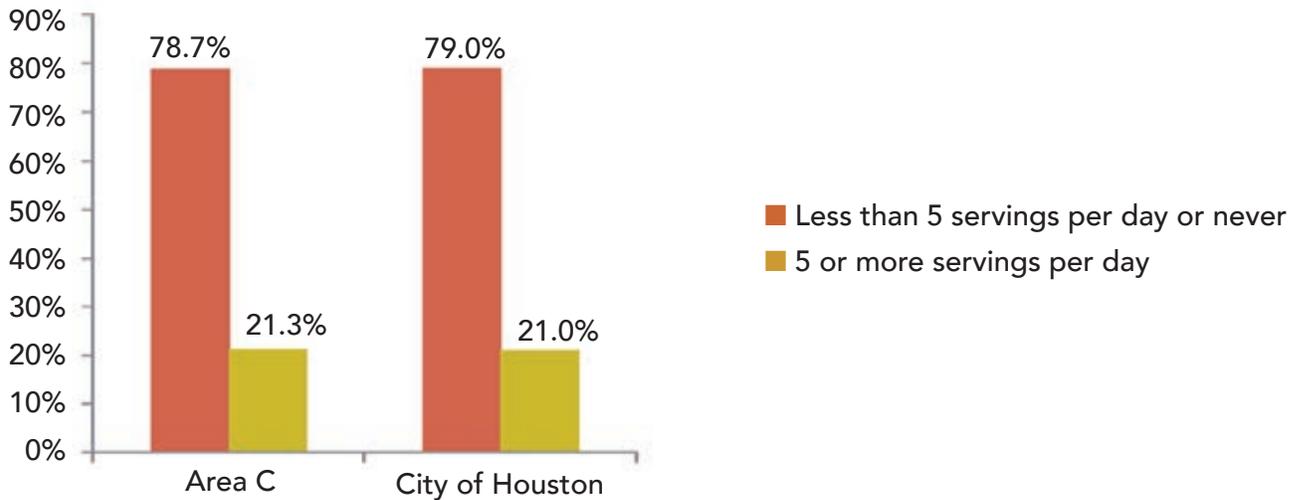
Data Source: BRFSS, 2008-2010

# Fruit/Vegetable Consumption and Physical Activity

Diets rich in fruits and vegetables provide essential vitamins and minerals, may reduce the risk of cancer and help protect against other chronic diseases (CDC, 2012g). Two cups of fruits and 2½ cups of vegetables per day are recommended for a 2,000 calorie intake (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2005).

Regular physical activity can improve overall health and fitness, and can reduce the risk of many chronic diseases (CDC, 2011c). It is recommended that adults engage in 150 minutes of moderate-intensity or 75 minutes of vigorous aerobic physical activity every week (CDC, 2011c).

## Servings of Fruits and Vegetables



Area C and the City of Houston have similar patterns of daily fruit and vegetable intake and levels of physical activity. Most adults consume less than five servings of fruits and vegetables a day and do not meet the recommended level of moderate or vigorous physical activity. Only 21.3 percent of adults in Area C are meeting nutritional guidelines for fruits and vegetable intake compared to 21.0 percent in the City of Houston. Less than half of Area C residents (47.3%) are meeting recommended levels of physical activity compared to 43.5 percent in the City of Houston.

## Recommendations for Moderate or Vigorous Physical Activity for Area C



Data Source: BRFSS, 2008-2010

## Summary

- HIV testing in Area C was low during 2010; only 20.2 percent of adults received a screening for HIV. The most common reason for not getting tested was that the residents felt they had not been exposed to HIV, followed by some who felt testing was otherwise unnecessary.
- More than 50 percent of residents (50 years and older) reported screening for colon cancer.
- Approximately two-thirds of female residents reported adherence to screening guidelines for breast cancer, and about 77 percent of female residents reported screening for cervical cancer.
- Approximately 32 percent of residents smoked 100 cigarettes in their entire lifetime, and approximately 26 percent reported smoking cigarettes every day during 2010.
- On occasions when individuals had an alcoholic beverage, an average of about two drinks were consumed. The average largest number of drinks consumed on any single occasion was about three.
- Approximately one-fifth of residents met nutritional guidelines for fruits and vegetables consumption and less than half of population met recommended levels for physical activity.

# Recommendations

## **At the Individual level:**

- Increase uptake and adherence to recommended screening behaviors.
- With average risk, colon cancer screening can begin at age 50, and with an increased risk, screening should begin sooner (Mayo Clinic, 2011c).
- Women between the ages of 21 and 65 years old should have regular Pap smear tests to screen for cervical cancer (CDC, 2012j).
- Regular clinical breast exams for women 20 to 39 years of age and annual mammogram screenings for women age 40 and older are recommended (Susan G. Komen, 2012).
- It is recommended that adolescents and adults ages 15 to 65 years old, those who are at increased risk, and all pregnant women be tested for HIV infection (United States Preventive Service Task Force, 2013).
- Adopt more healthy behaviors such as staying physically active and eating healthily, and avoid unhealthy behaviors such as excessive alcohol use.

## **At Organizational level:**

- Design and implement appropriate evidence-based programs and interventions to address alcohol abuse problems. Cultural differences need to be considered when developing evidence-based programs.
- Engage community institutions and trusted communication channels in changing health behaviors.
- Promote more community gardens, farmers markets and mobile produce markets to increase availability of fresh fruits and vegetables.
- Align preventive services and health literacy programs to promote screening behaviors, healthy eating and more active lifestyles.
- Conduct outreach to the uninsured to develop strategies to defray the cost of screening.
- Conduct more educational and awareness programs so that communities are aware of the available preventive and screening services.

## **At the Policy Level:**

- Align resources and strategies through community centers and work sites to promote behaviors such as healthy eating, active living and screening. The service integration will benefit various health conditions including early cancer detection which are likely responsible for the burden of disability among this population.
- Support the Community Transformation Initiative to improve Houston/Harris County health in its promotion of “health in all policies”.

## Other Factors that Affect Health

- ◆ Environmental Health
- ◆ Crime
- ◆ Teen Sexual Activity and Contraceptive Use
- ◆ Maternal and Child Health
- ◆ Infant Mortality

# Environmental Health

## Water Pollution

Water pollution occurs when chemicals or other foreign substances contaminate our waterways. Contaminated surface water (water from bayous, lakes, rivers, and streams) and contaminated groundwater can adversely affect human health and the environment. (National Institute of Environmental Health Sciences [NIH], 2013). Pollutants can hamper the ability of a waterway to sustain aquatic life and can cause odor and taste problems in drinking water.

**Harmful Effects:** High levels of bacteria can be harmful to people. Their presence can indicate the existence of fecal matter or other waterborne pathogens. According to the U.S. Department of Health and Human Services, effects of exposure may include: vomiting or diarrhea, skin rash, some cancers, reproductive and developmental problems (U.S. Department of Health and Human Services, 2010).

**Contributing Pollutants:** Fertilizers and pesticides from agricultural runoff; sewage and food processing waste; lead, mercury, and other heavy metals; chemical wastes from industrial discharges; and chemical contamination from hazardous waste sites (NIH, 2013).

### Environment-Related Problems in the Community

- ◆ The water bodies in this region pass through urban residential and commercial areas with some light industrial and agricultural activities.
- ◆ Bacteria has been the most widespread and pervasive pollutant in Area C for many years. In addition, elevated nutrient levels and low dissolved oxygen concentrations are also of great concern.
- ◆ The wide range of land uses and relatively dense population in this area create a wide range of potential sources of contamination (Houston-Galveston Area Council Basin Highlights Report, 2013).
- ◆ Sources of pollution may include wastewater treatment facilities with inadequate treatment, bypasses and sanitary sewer system overflows, and runoff contaminated with waste from pets and wildlife (Houston-Galveston Area Council Water Resources Information Map, 2013).

Information Source: Bureau of Pollution Control and Prevention/HDHHS, 2010

### Percentage of residents with concerns for Area C

Water Pollution	Area C	Harris County
Water Pollutants	12.3%	10.2%
Drinking Water Quality	20.0%*	18.8%
Waste Pollution	Area C	Harris County
Dumping Waste	14.6%	16.6%

\* In spite of the polluted surface water and waterways, the City of Houston drinking water is tested and safe to drink.

Water pollutants and conditions of drinking water were more of concern for residents in Area C than those in Harris County. A higher proportion of Area C (20.0%) felt the quality of their drinking water was more of a concern than residents in Harris County residents (18.8%). Particularly, residents were concerned about water contamination caused from harmful chemicals and runoff, drinking water that had an odd look, odor, or taste, and the dumping of waste in empty lots or ditches.

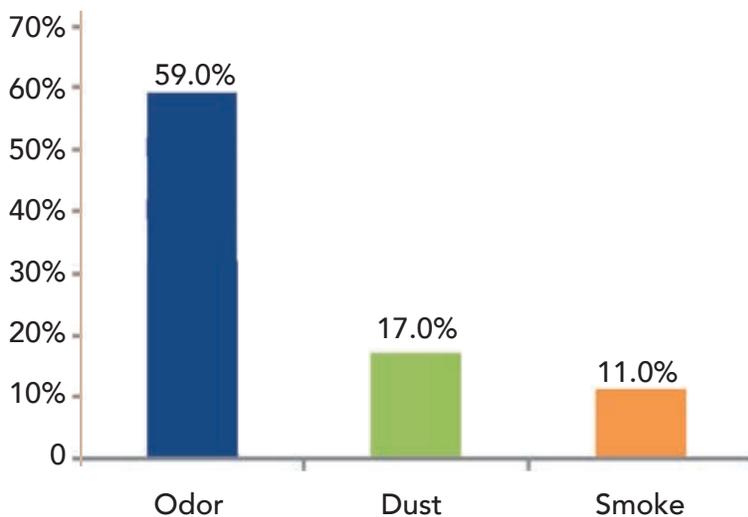
Data Source: HHS, 2010

## Environmental Health

### Air Pollution

Air pollution can have severe adverse effects on the overall health of the community. Out-of-hospital cardiac arrest (McNally et al., 2011) is a health effect associated with short-term exposure to air pollutants, including ozone and particulate matter (Ensor, Raun, & Persse, 2013), which have been among the triggers associated with cardiac arrest. Approximately 300,000 people in the United States experience an out-of-hospital cardiac arrest each year and over 90 percent of those cases result in death. The risk of cardiac arrest increases with a 20 parts per billion (ppb) increase in ozone three hours before the cardiac arrest event (EPA, 2006). Similar findings of increased risk of cardiac arrest were found for an increase of 6 µg/m<sup>3</sup> particulate matter (PM<sub>2.5</sub>) one to two days before the cardiac arrest event (EPA, 2005). Risk of cardiac arrest is higher in the summer and among African Americans, males, and those over 64 years in age. Air pollution is also a trigger for asthma events.

### Most Frequent Type of 311 Air Pollution Complaints for Area C

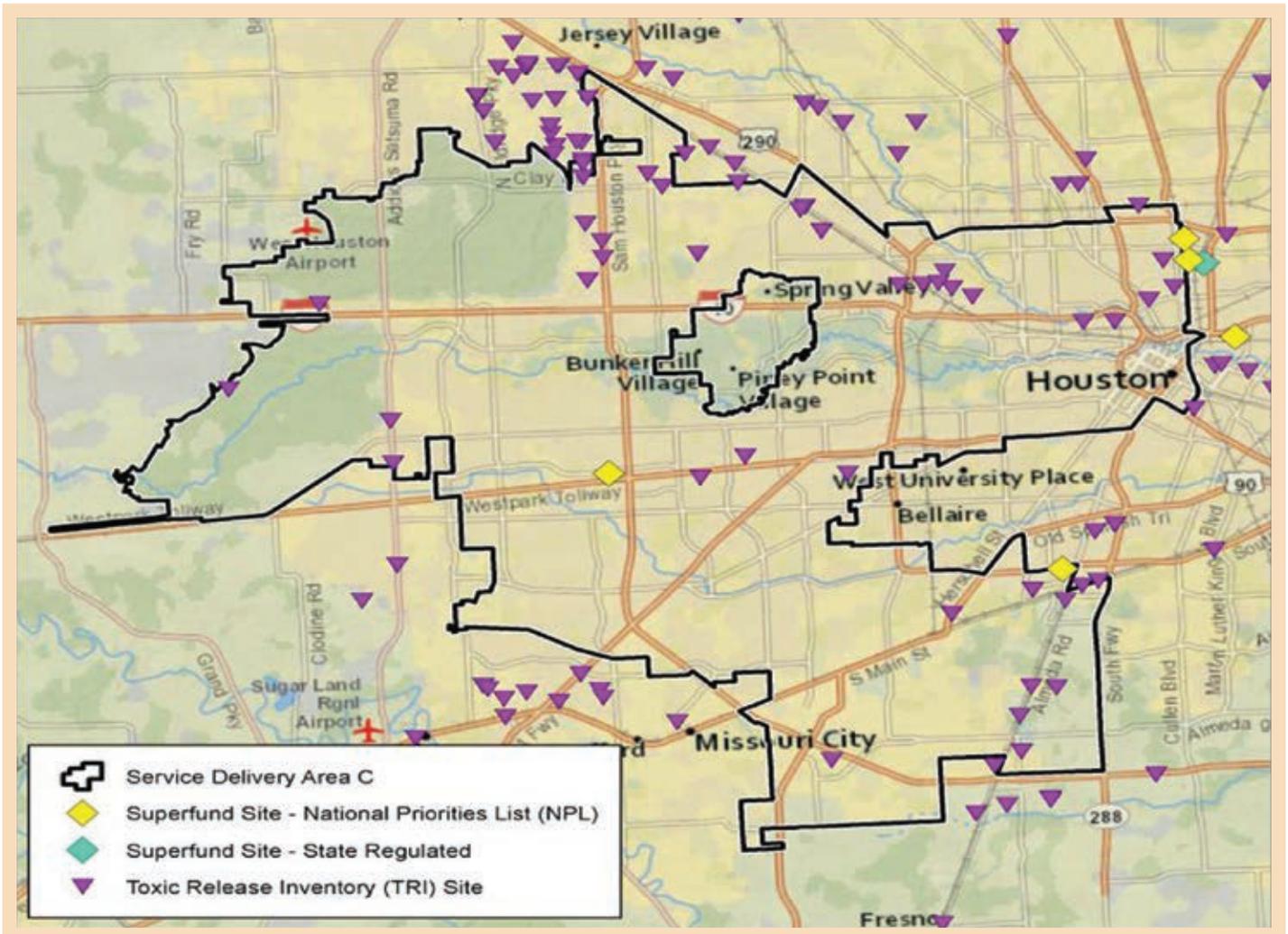


In 2012, 43.0% of the City of Houston “air pollution” complaints (received through calls to the City of Houston 311 telephone line) were from Area C. The most frequent types of 311 air pollution complaints in 2012 were odor (59.0%), followed by dust (17.0%), and smoke (11.0%). According to the Health of Houston Survey (2010), a higher proportion of residents in Area C reported that fumes from industrial manufacturing (17.2%) were environmental-related problems in their community compared to those in Harris County (14.8%).

Car emissions, manufacturing of chemicals, burning coal, oil, and other fossil fuels, dust, pollen and mold spores are some of the contributing factors of air pollution (Medline Plus, 2013b). The U.S. Environmental Protection Agency (EPA) National Ambient Air Quality Standard (NAAQS) for 8-hour ozone concentration is 75 ppb (EPA, 2012b). During 2012, the air in Area C contains more pollution than allowed by the national standards in five of the air monitoring stations in or near Area C: Houston Weshollow, Houston Croquet, and Houston Bayland Park (TCEQ, 2013).

Data Source: Bureau of Pollution Control and Prevention/HDHHS, 2010

# Environmental Health and Safety



The Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) administer programs which monitor and regulate facilities with the potential to release significant amounts of hazardous chemicals into the environment. Chemical emissions and waste released into the environment can affect everyone. Awareness of regulated site locations and pollutant types may help residents to better understand the environmental hazards present in their community.

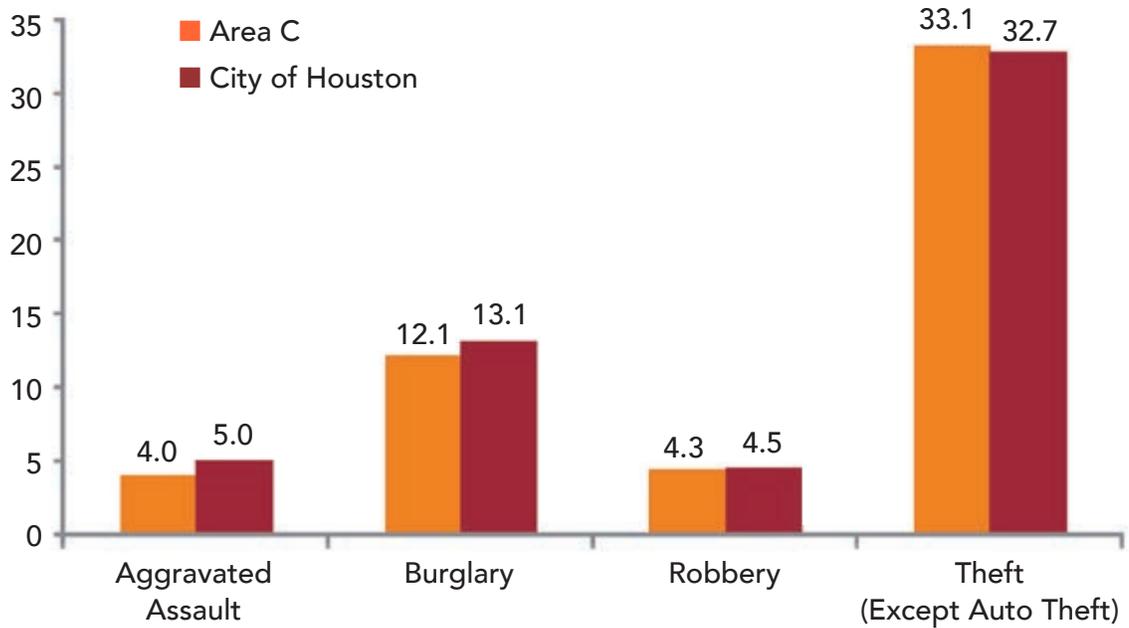
“A superfund site is an uncontrolled or abandoned place where hazardous waste is located, that can affect local eco-systems” (EPA, 2012a). There are 12 superfund sites within the Houston city limits, nine of which are on the National Priorities List (NPL). There are two superfund sites in Area C, and both are on the NPL located in the Westchase & South Main neighborhoods.

“TRI tracks the management of toxic chemicals emitted to the air or water, or placed in some type of land disposal that pose a threat to human health and the environment” (EPA, 2013). There are 150 Toxic Release Inventory (TRI) sites within the Houston city limits; 39 of these are located in Area C.

Data Source: TCEQ, 2010 and EPA, 2012-2013

## Crime

Offense Types (Rate per 1,000 Population)



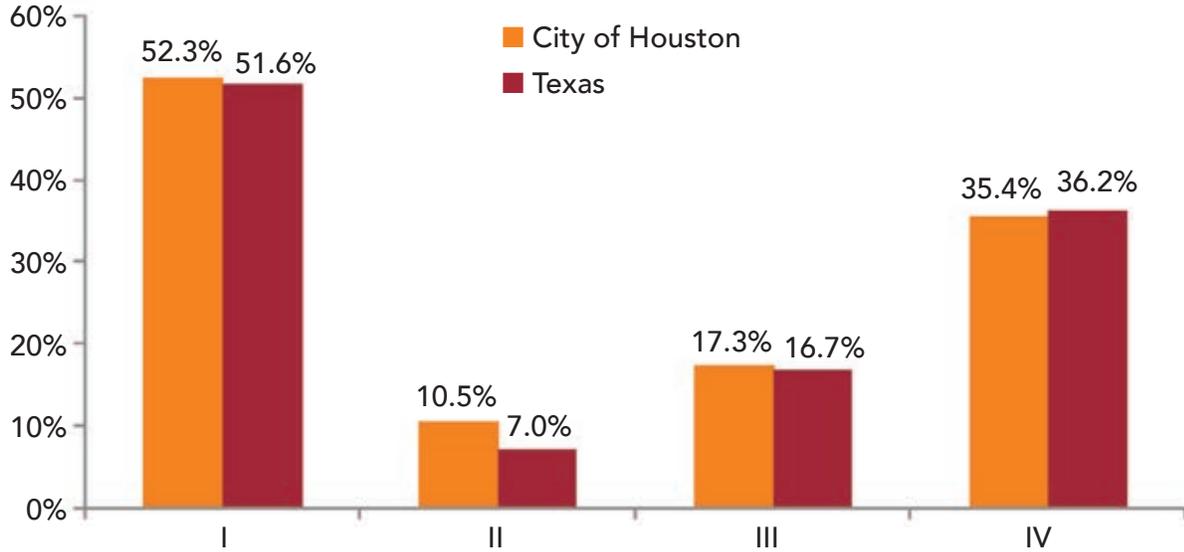
Crime is a public health issue that can have detrimental effects on physical health. By the end of 2012, the leading type of criminal offense in Area C was theft, occurring at a rate of 33.1 per 1,000 population which was comparable to the City of Houston’s rate of 32.7 per 1,000 population. In Area C and the City of Houston, rates of theft were more than double the rates of burglary, and occurred seven times more often than aggravated assault or robbery. The rates of murders and rapes were similar for the City of Houston and Area C (0.1 and 0.3 per 1,000 population respectively, not shown above).

According to the Bureau of Justice Statistics, in the past 17 years, the U.S. burglary rate decreased 56.0 percent and there were 27.6 victimizations per 1,000 households (Walters, Moore, & Berzofsky, 2013). Roughly, the national rate of robbery is about 1.3 per 1,000 population, aggravated assault is 2.5 per 1,000 population, and the rate of theft is 20.1 per 1,000 population (The Federal Bureau of Investigation, n.d.). Rates of aggravated assault, robbery, and theft were higher in Area C than rates in the U.S. population.

Data Source: Houston Police Department Crime Report, December 2011-November 2012

# Teen Sexual Behavior and Contraceptive Use

## Sexual Behaviors Among High School Students (15-19 Years Old)



I) Ever Had Sexual Intercourse

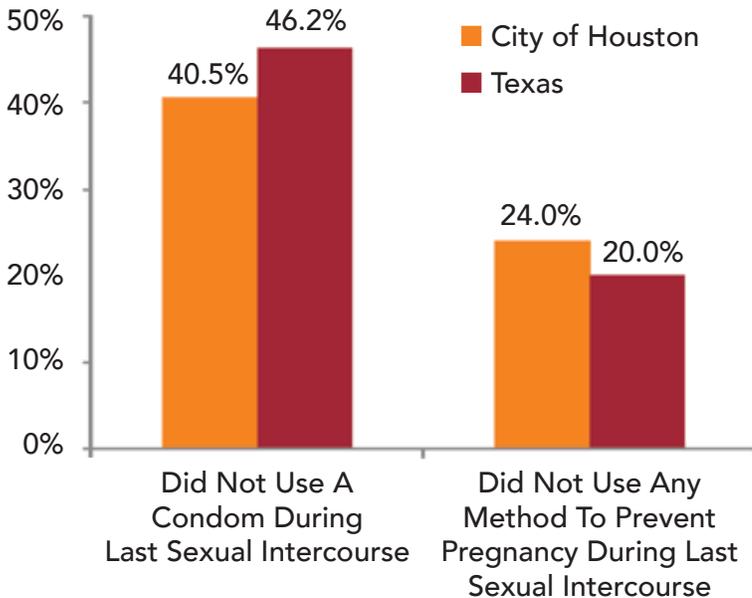
II) Had Sexual Intercourse For The First Time Before Age 13 Years

III) Had Sexual Intercourse With Four Or More Persons

IV) Had Sexual Intercourse With At Least One Person (during the 3 months before the survey)

According to Youth Risk Behavioral Surveillance System data (2011), a higher proportion of high school students between the ages of 15 and 19 in the City of Houston reported having sexual intercourse for the first time before the age of 13, compared to high school students in Texas. There is no significant difference between the City of Houston and Texas high school students' responses when asked about sexual activity within the past three months.

## Contraceptive Use Among High School Students (15-19 Years Old)

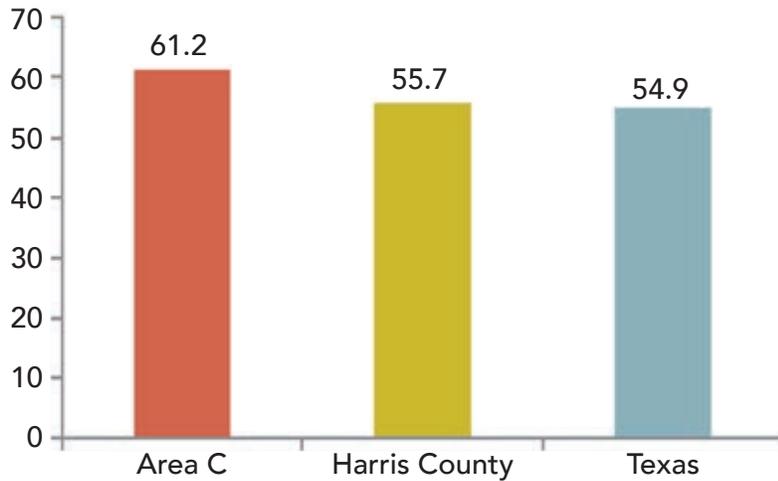


Approximately 41.0 percent of high school students in the City of Houston reported not using a condom during their last sexual intercourse, compared to 46.0 percent of Texas high school students. There is no significant difference between high school students in the City of Houston and Texas in terms of contraceptive use. However, high school students in the City of Houston reported higher proportions of not using any form of contraception during their last sexual intercourse as compared to Texas high school students.

Data Source: Texas YRBSS, 2011

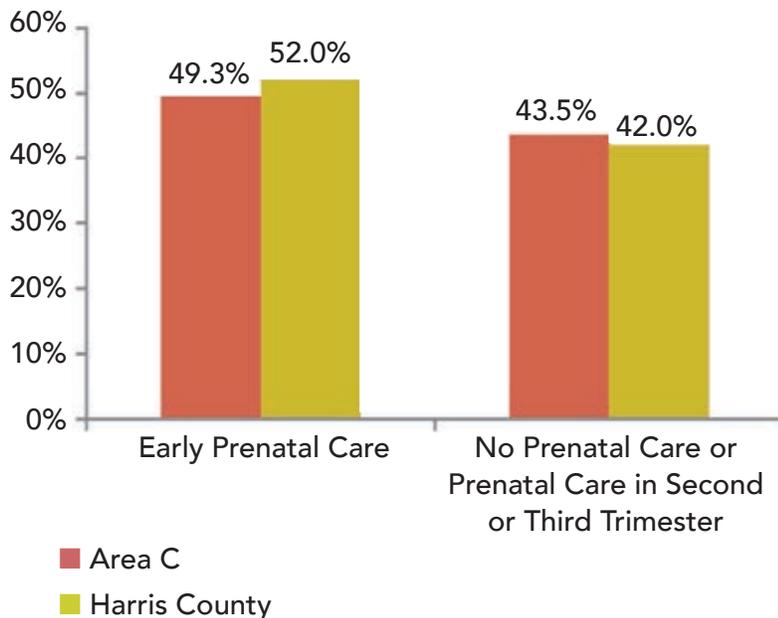
## Maternal and Child Health

Annual Average — Teen Birth Rate, 2007-2011 (per 1,000 Girls 15-19)



Nationally, the teen birth rate among girls between 15 to 19 years old declined eight percent from 34.3 births per 1,000 girls 15 to 19 years old in 2010 to 31.3 in 2011 (Hamilton, Martin, & Ventura, 2012). During 2007 to 2011, the annual average teen birth rate in Area C was higher than that of Harris County and Texas.

Received Early or No Prenatal Care or Prenatal Care in the 2nd or 3rd Trimester

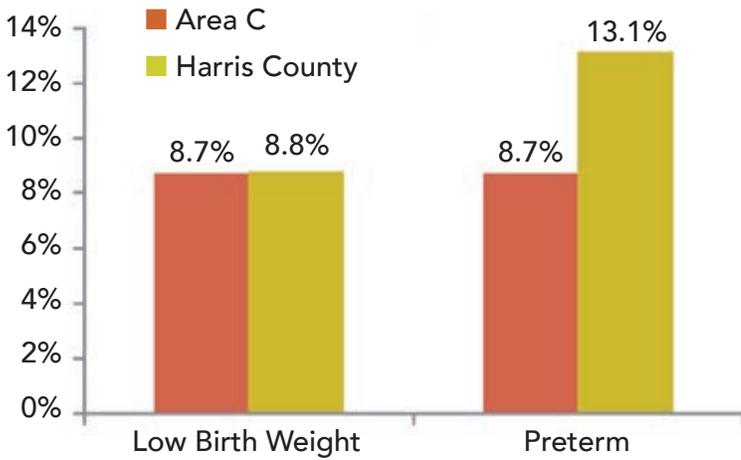


According to the Vital Statistics Unit, Department of State Health Services, from 2007-2011, only 49.3 percent of women in Area C received the recommended early prenatal care in the first trimester, compared to 52.0 percent of women in Harris County. A slightly higher percentage of women in Area C received late or no prenatal care than those in Harris County (43.5% vs. 42.0%). The Healthy People 2020 goal is that at least 77.9 percent of females delivering a live birth receive prenatal care beginning in the first trimester [Healthy People 2020, Objective 10.1] (Healthy People 2020, 2013c).

Data Source: Vital Statistics Unit, Center for Health Statistics, Texas, DSHS, 2007-2011

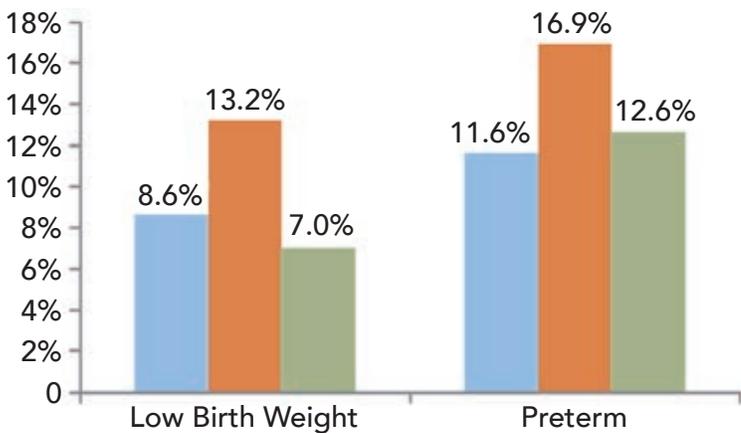
# Maternal and Child Health

## Low Birth Weight and Preterm Deliveries, 2007 –2011



According to the Texas Vital Statistics Unit, Center for Health Statistics, low birth weight babies weigh less than 2,500 grams at birth. In Area C, low birth weight babies represent 8.7 percent of all births. Preterm births are defined as births at less than 37 weeks. In area C, 8.7 percent of all births in were preterm, as compared to 13.1 percent of births in Harris County.

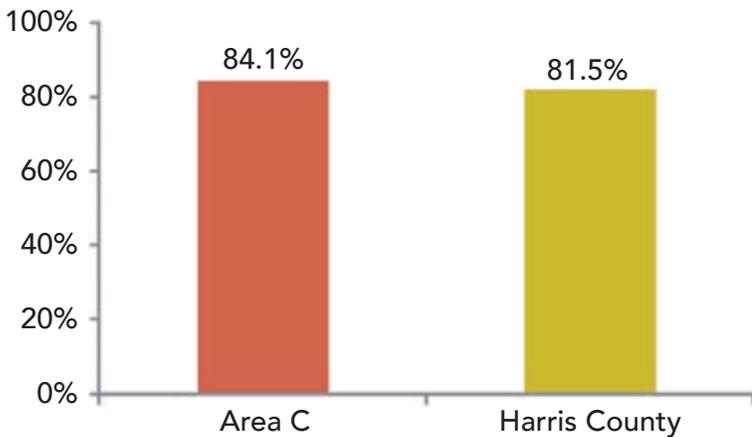
## Low Birth Weight and Preterm Deliveries By Race/Ethnicity



Blacks had higher proportions of low birth weight babies and preterm births in Area C compared with Whites and Hispanics.

Data Source: Vital Statistics Unit, Center for Health Statistics, Texas, DSHS, 2007-2011

## Immunization Series Completion Among Daycares, 2012-2013



Note:

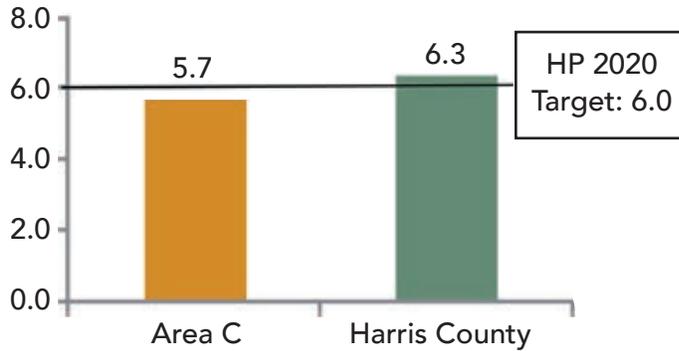
1. Series completion percentages were calculated by dividing the number of children who were up to date with their vaccines by the total number of children at the daycare during the time of assessment.
2. Age-specific antigens were taken into account, so only children that should have had the vaccine were counted.
3. Shot records of children in Harris County's daycares were reviewed for the following vaccines: Hepatitis B, Hepatitis A, Varicella, DTap (Diphtheria, Tetanus, Pertussis), MMR (Measles, Mumps, Rubella), Polio, Hib (Haemophilus Influenza Type B) and PCV (Pneumococcal conjugate).

Immunization series completion among children in daycare settings in Area C (84.1%) was comparable with that in Harris County (81.5%).

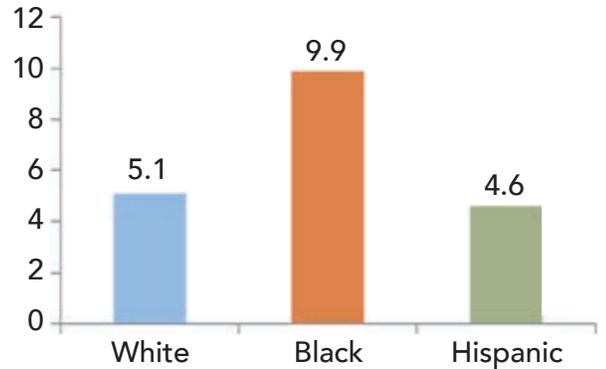
Data Source: Bureau of Immunization/HDHHS, 2012-2013

## Infant Mortality

Annual Average - Infant Mortality Rate, 2007-2011 (per 1,000 Live Births)



Area C Annual Average Infant Mortality Rate by Race/Ethnicity, 2007-2011 (per 1,000 Live Births)



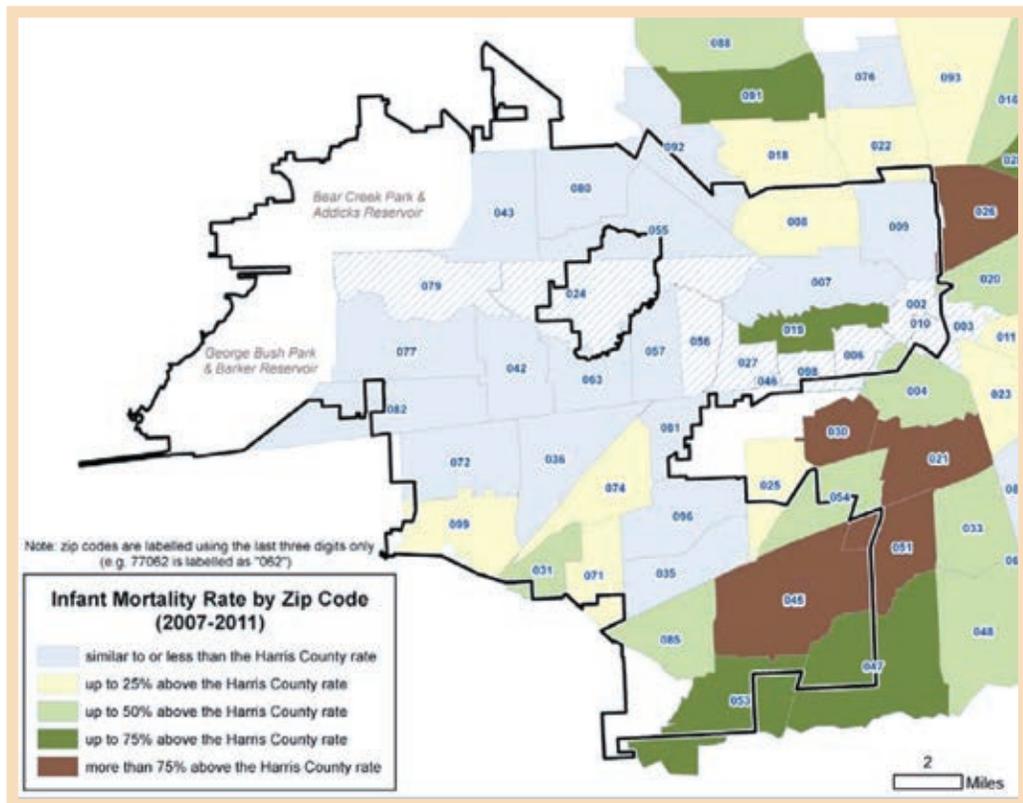
The Healthy People (HP) 2020 target is to reduce infant mortality to 6.0 deaths per 1,000 live births (Healthy People 2020, 2013d).

Similar to the City of Houston, infant mortality rate was higher among Blacks in Area C as compared to other race/ethnic groups.

A higher infant mortality rate was found in Area C than Harris County.

### Infant Mortality Rate Map (By ZIP Code)

Infant mortality rates are highest in ZIP codes (77045) that overlap with the following neighborhood: Central Southwest.



Data Source: Vital Statistics Unit, Center for Health Statistics, Texas, DSHS, 2007-2011



## Summary and Recommendations

### Summary

- Air pollution from fumes, odors, and traffic and industry smoke are reported environmental concerns for residents.
- Water pollution (chemical contamination, run-off, and the look, taste, and odor of drinking water) and the dumping of waste are some of the other environmental concerns residents have.
- Currently there are two superfund sites in Area C and both of the sites are on the NPL.
- Crime is also a concern in Area C and the leading type of criminal offense is theft (33.1 per 1,000 population).
- Reports from students 15 to 19 years old in the City of Houston indicated that a high proportion had their first sexual intercourse encounter before the age of thirteen and approximately 24 percent did not use a contraceptive during their last sexual encounter.
- The teen birth rate among girls 15 to 19 years old is higher in Area C than that of Harris County and national average.
- About 49 percent of pregnant women received prenatal care in their first trimester, and approximately 9 percent of all births were preterm deliveries.
- Approximately 84 percent of children in daycare completed their immunization series.
- The current infant mortality rate in Area C is 5.7 per 1,000 live births.
- Blacks have higher proportions of low birth weight babies, preterm births, and infant mortality.

# Recommendations

## At the Individual Level:

- Increase knowledge and awareness of environmental hazards and the harmful effects of air pollution and water contamination.
- Facilitate the implementation of more efficient training on safety for workers.
- Educate youth on safe sex practices and the consequences of teenage pregnancy.

## At the Organizational Level:

- Ensure facilities are practicing source reducing approaches to prevent pollution and reduce toxic chemicals and pesticides release in the environment.
- Enforce regulatory programs that address environmental issues within the community.
- Support, maintain and/or increase programs that inspect septic sewer systems and wastewater treatment facilities and oversee maintenance and repair.
- Promote evidence-based education on teen pregnancy, contraception use, and prenatal care.
- Introduce evidence-based strategies that promote early prenatal care.
- Implement evidence-based youth violence prevention programs.

## At the Policy Level:

- Continue or increase public outreach efforts to raise awareness of runoff issues, proper maintenance of on-site sewage facilities, proper pet waste disposal, and proper disposal of fats, oils, and grease.
- Continue or increase monitoring efforts and special studies to identify sources of contamination.
- Examine the possibility of expanding lessons learned from STRYVE project.

## Program Initiatives

### Women and Children’s Health

#### West End Multi-Service Center

- ◆ **Life Houston** – Provides short-term infant formula and baby food on emergency basis for babies from birth to 12 months.
- ◆ **M.H.M.R.A** – Mental Health and Retardation Authority – Provides counseling services for children and youth 3 to 18 years of age.

#### Southwest Multi-Service Center

- ◆ **Prosalud Car Seat Safety** – Provides Car Seat Safety education and access to car seats to low income families.
- ◆ **Women Infant & Children Nutrition Program** – Women, Infants and Children (WIC) is a special supplemental nutrition program which provides health care referrals, nutrition education and nutritious foods to pregnant, breastfeeding and postpartum women, and children under five who have a nutrition health-related problems.
- ◆ **Healthy Families Healthy Futures** – The HFHF is a voluntary service offered for free to first time moms between the ages of 15-25. The family begins with weekly home visits which consist of education on breast feeding, immunizations, linkage to a medical provider and the Growing Great Kids curriculum. The home visits decrease as the family progresses through the program.
- ◆ **Planned Parenthood Promotora Program** – Parenthood Promotora Program provides information on abstinence, pregnancy, breastfeeding, family planning, sexual transmitted diseases and other issues concerning reproductive health for both men and women.
- ◆ **Houston Area Women’s Center** – The Women’s Center helps individuals affected by domestic and sexual violence in their efforts to move their lives forward. They provide shelter, counseling and advocacy to support them in building lives free from the effects of violence. Our services are confidential and available to everyone.

#### Hiram Clarke Multi-Service Center

- ◆ **South Houston Concerned Citizens’ Coalition** – Planned Parenthood Promotora Program provides information on abstinence, pregnancy, breastfeeding, family planning, sexual transmitted diseases and other issues concerning reproductive health for both men and women.
- ◆ **Houston Area Women’s Center** – The Women’s Center helps individuals affected by domestic and sexual violence in their efforts to move their lives forward. They provide shelter, counseling and advocacy to support them in building lives free from the effects of violence. Our services are confidential and available to everyone.

### Child Care Programs

#### West End Multi-Service Center

- ◆ **Child Care Council of Greater Houston, INC** – Provides child-care education for children 6 months to 5 years of age. Offers planned educational programs coordinated by state licensed staff, 3 daily meals, and parental involvement opportunities.

#### Hiram Clarke Multi-Service Center

- ◆ **Head Start** – Neighborhood Centers Inc. has been in existence for over 100 years and its mission is to bring resources, education and connection to underserved neighborhoods. The agency core values are Respect and Responsibility, Leadership and Excellence, Accountability and Integrity, Growth and Innovation, and Diversity and Inclusiveness. While the program here at HC MSC is a Head Start program for 3 and 4 year olds, NCI also offers Early Head Start and Charter Schools.

### Food Assistance

#### West End Multi-Service Center

- ◆ **Community Garden** – Plant, water, and harvest the garden. Volunteers can take harvests home.
- ◆ **Summer Food Program** – Free summer meals are available for youth ages 1-18. No registration is required to eat; just show up at West End MSC. Lunch from 11:00am-1:00pm, snack from 3:00pm-4:00pm.

# Program Initiatives

## Women and Children's Health

### Southwest Multi-Service Center

- ◆ **Gardening & Nutrition Program** – The Houston Department of Health & Human Services along with local agencies provide nutritional education and gardening workshops. You will learn how to cook healthy meals, keep yourself and your family active and how to garden.
- ◆ **Parks & Recreation Summer Food Program** – Through this program young people ages 1-18 receive FREE nutritious lunches for 11 weeks during the time that school is out of session.
- ◆ **Houston Food Bank Social Services Outreach Program** – Houston Food Bank's Social Services Outreach Program (SSOP) is focused on raising awareness on social services. They provide application assistance for social / health services. Application Assistance: Supplemental Nutritional Assistance Program (SNAP), formerly food stamps, Temporary Assistance for Needy Families (TANF) cash benefits, Children's Medicaid, Children's Health Insurance Program (CHIP), Women's Health Program (family planning, health screenings through Medicaid Program), CHIP Perinatal Program, linkage and referral services to other social service providers and other food bank programs.
- ◆ **Houston Food Bank Distribution** – The Commodity Supplemental Food Program is a USDA sponsored food program designed to improve the health and nutrition of senior citizens, pregnant women, postpartum mothers, infants, and children. Participants receive one box of food once a month. Who is eligible? People over 60 years old and income eligible, women who are pregnant, breastfeeding, under one year post partum, infants/children under six years old who DO NOT receive WIC benefits.

### Hiram Clarke Multi-Service Center

- ◆ **Community Gardening** – The Houston Department of Health & Human Services provides nutritional education and gardening workshops. You will learn how to plant, how to take care of your plantation and how to harvest, keep yourself and your family active and learn how to grow and maintain your own vegetable and herb garden.
- ◆ **Parks & Recreation Summer Food Program** – Through this program young people ages 1-18 receive FREE nutritious lunches for 11 weeks during the time that school is out of session.
- ◆ **Houston Food Bank (Senior Food Distribution)** – Houston Department of Health and Human Services in partnership with Houston Food Bank is able to provide monthly supplemental food to seniors of age 60+ on a monthly basis. Registration is required, and waiting lists are currently in place.
- ◆ **Houston Food Bank (Snap Assistance)**

## Educational Programs

### Southwest Multi-Service Center

- ◆ **Houston Public Library Express** – HPL will provide training and learning opportunities to take advantage of the technology resources we offer in a safe and welcoming space.
- ◆ **Resource & Computer Center** – The Resource Center is equipped with computers and resources for use by the community to search/apply for employment, check email, school work, and practice their computer skills. See center calendar for upcoming classes.
- ◆ **Houston Community College ESL & GED/ABE** – The Adult Education Program offers adult basic education, GED Preparation, Digital Literacy and Job Readiness.
- ◆ **HDHHS Food Service Manager's Certification Classes** – The City of Houston requires a food service manager in food establishments during all stages of operation. Students completing the course and passing the examination with a score of 70 points or above, receive a certificate, valid for 5 years. The City of Houston provides the initial 2-day course and renewal 1-day course. Registration fee covers certification and class material.
- ◆ **Legacy Community Health Services** – Offers educational and social service. Knitting groups on Fridays from 10am—12pm. Parenting classes, health education classes, Spanish literacy education for those wanting to learn to read and write.

### Hiram Clarke Multi-Service Center

- ◆ **Houston Community College** – GED/ABE & ESL. The Adult Education Program offers Adult basic education, GED Preparation, Digital Literacy and Job Readiness.

## Program Initiatives

### Hiram Clarke Multi-Service Center

- ◆ **Houston Community College ESL & GED/ABE** – The Adult Education Program offers adult basic education, GED Preparation, Digital Literacy and Job Readiness.
- ◆ **Houston Public Library** – Vinson Neighborhood Library offers a full neighborhood library as well as the added benefits of HPL Express component, which integrates advanced technology. Customers will have full access to the services, data and collections of the entire library system. FREE Computer Classes, age-appropriate programs, virtual tutoring and access to HPL's vast collection of databases for scholars, students, small businesses and others are readily available with a library staff specially trained and committed to the HPLX experience. HPL will provide training and learning opportunities to take advantage of the technology resources we offer in a safe and welcoming space. The Resource Center is available for use by residents in the area. The center is equipped with computers and there is access to a printer and a variety of resources in the community. Clients can access information on emergency food, emergency assistance with rent and utilities, medical support, job readiness, transportation services and other issues/concerns affecting them.

### Senior Programs

#### West End Multi-Service Center

- ◆ **Neighborhood Centers, INC. Senior Citizens Program** – Provides daily meals, arts and crafts, educational classes, field trips, scheduled recreational activities, physical fitness sessions, information and referrals.

#### Southwest Multi-Service Center

- ◆ **NCI Senior Program** – The program focuses on socialization activities, arts & crafts and volunteer opportunities within the community for 60 years and older.

#### Hiram Clarke Multi-Service Center

- ◆ **CPH Senior Program** – The program focuses on socialization activities, arts & crafts and volunteer opportunities within the community for 60 years and older. Daily warm lunch offered to pre-registered clients. The program offers an array of fun and healthy activities, including but not limited to line dancing, scrap booking, wellness workshops, etc.

### Fitness Programs

#### West End Multi-Service Center

- ◆ **Center for Recovery and Wellness Resources** – The CRWR provides recovery support by promoting greater focus and awareness of choices, actions, and responsibility. Recovery Coaching and Recovery Support Services concentrates on where you are now and what you are willing to do to enjoy a better tomorrow.

#### Hiram Clarke Multi-Service Center

- ◆ **Line Dancing Classes** – The program provides instruction in line dancing while encouraging participants to remain active. Line dance also provides a great low –impact aerobic work out. Open to all levels of fitness.
- ◆ **Zumba Classes** – The Zumba classes are open to the entire family, FREE of charge. This is a fun way to get in shape and be fit, while at the same time learn Latin dancing moves appropriate for children and adults.
- ◆ **New Activities in the Center** – Wild Heather Civic Club Meetings, meets every 4th Thursday of the month and open to the public.

### Medical Care Access & Eligibility

#### West End Multi-Service Center

- ◆ **Eligibility & Client Access Services** – Assistance applying for Medicaid, Chip, Food Stamps, Gold Card Financial Assistance, Dental and Family Planning Services.

#### Southwest Multi-Service Center

- ◆ **Referral & Eligibility Services** – The Community Relations Specialist assists clients in connecting them to a particular service such as emergency food, emergency assistance with rent and utilities, medical support, job readiness workshops, and other issues affecting the client.
- ◆ **Harris Health System Financial Assistance (Gold Card)** – Services offered by Harris County are based on first come first serve, limited space available.

# Program Initiatives

## Women and Children's Health

### Hiram Clarke Multi-Service Center

- ◆ **Eligibility Services** – Walk-in appointment, first come, first served. The community liaison will conduct eligibility interviews for the City of Houston Health Centers. The community liaison will also screen for possible eligibility for the gold card, Medicaid, CHIP, CHIP Perinatal and assist with completing the applications.

### Other Programs

### West End Multi-Service Center

- ◆ **Mayor's Citizens Assistance Office** – Provides information and assistance to residents regarding City of Houston services. Handles residents' concerns and makes referrals to appropriate city departments.
- ◆ **Lone Star Veterans Association** – Provides resume writing and coaching services, military transition assistance, housing assistance, free wifi in a café's style setting, peer mentoring services, resources direction, including GI Bill and VA benefits. Schedule workshops and training program, and offer crisis response and intervention. This is a place for Houston OEF/OIF veterans to meet up and find out what's going on in the community.

### Southwest Multi-Service Center

- ◆ **Mayor's Office of International Communities** – MOIRA informs and educates immigrants & refugees about the immigration laws of the United States, provides referrals and acts as liaison between immigrant communities and city government.
- ◆ **Vital Statistics** – Issue birth certificates to properly qualified applicants who satisfy identification requirements per state law.
- ◆ **The Council on Alcohol & Drugs Cradles Project** – The Cradles Project offers free services for pregnant/postpartum women who are at risk of or have a history of drug/alcohol use and are pregnant or have at least one child 18 months or younger. Cradles free services include: Case management, counseling, coaching, parenting and referrals to address specific individualized needs. Classes are in Spanish and are free and confidential. Classes can also serve as the required class mandated by court or CPS.

### Hiram Clarke Multi-Service Center

- ◆ **Mayor's Citizens Assistance Office** – Under the Mayor's Citizens' Assistance office, Community liaison services all communities by responding to constituent requests, such as: Assistance for the homeless & disadvantage, how to form a new Civic Organization, Information on neighboring organizations and what they offer the community, The Mayor's perspective on a community issue.
- ◆ **Beat the Heat Program** – Any body is welcome to come to the cooling center and stay cool & minimize home electricity use. Each cooling center contains air conditioners as well as activities and movies for children and adults alike. Snacks & drinks will also be provided. Advisors of Reliant Energy will be in attendance to give people tips on how to decrease their electricity bill usage.
- ◆ **District K Council Office** – The District K council office has a satellite location at the Hiram Clarke MSC. This satellite office will provide constituent services & referrals via the District K council office; organize health fairs/screenings and other City of Houston-related events that positively impact the area; build and collaborate on City/County partnerships via the City of Houston Health & Human Services Dept. and the Harris County Hospital District (also with other City/County departments and outside social service agencies); and coordinate youth initiatives via the area school districts (HISD and Fort Bend ISD).

## References

- American Cancer Society (2011). Colorectal Cancer Facts & Figures 2011-2013. Atlanta: American Cancer Society. Retrieved June 25, 2013, from <http://www.cancer.org/acs/groups/content/@epidemiologysurveillance/documents/document/acspc-028323.pdf>
- American Cancer Society (2012). Colorectal Cancer: What are the key statistics about colorectal cancer. Retrieved June 22, 2013, from <http://www.cancer.org/cancer/colonandrectumcancer/detailedguide/colorectal-cancer-key-statistics>
- American Heart Association (2013). Coronary Artery Disease - Coronary Heart Disease. Retrieved June 25, 2013, from [http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Coronary-Artery-Disease—The-ABCs-of-CAD\\_UCM\\_436416\\_Article.jsp](http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Coronary-Artery-Disease—The-ABCs-of-CAD_UCM_436416_Article.jsp)
- American Medical Association (2013). AMA adopts new policies on second day of voting at annual meeting. Retrieved June 24, 2013, from <http://www.ama-assn.org/ama/pub/news/news/2013/2013-06-18-new-ama-policies-annual-meeting.page>
- Breast Cancer (2014). Race/Ethnicity. Retrieved April 16, 2014 from [http://www.breastcancer.org/risk/factors/race\\_ethnicity](http://www.breastcancer.org/risk/factors/race_ethnicity)
- Center for Disease Control and Prevention [CDC] (1998). Demographic Characteristics of Persons Without a Regular Source of Medical Care – Selected States, 1995. *Morbidity and Mortality Weekly Report*, 47(14), 277-279.
- Centers for Disease Control and Prevention [CDC] (2006). Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings. *Morbidity and Mortality Weekly Report*, 55 (RR14), 1-17.
- Center for Disease Control and Prevention [CDC] (2010). The Role of STD Prevention and Treatment in HIV Prevention. Retrieved June 23, 2013, from <http://www.cdc.gov/std/hiv/stdfact-std-hiv.htm>
- Center for Disease Control and Prevention [CDC] (2011a). Fact Sheet: Health disparities in education and income. Retrieved June 22, 2013, from <http://www.cdc.gov/minorityhealth/reports/CHDIR11/FactSheets/EducationIncome.pdf>
- Center for Disease Control and Prevention [CDC] (2011b). Mental Health Basics. Retrieved July 18, 2013, from <http://www.cdc.gov/mentalhealth/basics.htm>
- Center for Disease Control and Prevention [CDC] (2011c). Physical activity: How much physical activity do you need? Retrieved May 22, 2013, from <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>
- Center for Disease Control and Prevention [CDC] (2012a). Diabetes Public Health Resource: Diabetes health concerns. Retrieved June 25, 2013, from <http://www.cdc.gov/diabetes/consumer/problems.htm>
- Center for Disease Control and Prevention [CDC] (2012b). Alcohol and Public Health. Retrieved July 6, 2013, from <http://www.cdc.gov/alcohol/faqs.htm>
- Center for Disease Control and Prevention [CDC] (2012c). Cholesterol. Retrieved June 24, 2013, from <http://www.cdc.gov/cholesterol/>
- Center for Disease Control and Prevention [CDC] (2012d). Diabetes Public Health Resource: Basics about Diabetes. Retrieved July 11, 2013, from <http://www.cdc.gov/diabetes/consumer/learn.htm>
- Center for Disease Control and Prevention [CDC] (2012e). High Blood Pressure. Retrieved June 27, 2013, from <http://www.cdc.gov/bloodpressure/about.htm>
- Center for Disease Control and Prevention [CDC] (2012f). Overweight and Obesity. Retrieved May 28th, 2013, from <http://www.cdc.gov/obesity/adult/defining.html>
- Center for Disease Control and Prevention [CDC] (2012g). Nutrition for everyone: Fruits and vegetables. Retrieved May 28th, 2013, from <http://www.cdc.gov/nutrition/everyone/fruitsvegetables/index.html>
- Center for Disease Control and Prevention [CDC] (2012h). Gynecological cancers: Cervical cancer. Retrieved June 22, 2013, from <http://www.cdc.gov/cancer/cervical/>
- Center for Disease Control and Prevention [CDC] (2012i). Colorectal (Colon) Cancer. Retrieved June 22, 2013, from <http://www.cdc.gov/cancer/colorectal/>
- Center for Disease Control and Prevention [CDC] (2012j). Cervical cancer screening. Retrieved June 22, 2013, from [http://www.cdc.gov/cancer/cervical/basic\\_info/screening.htm](http://www.cdc.gov/cancer/cervical/basic_info/screening.htm)
- Center for Disease Control and Prevention [CDC] (2013a). Heart Disease. Retrieved June 24, 2013, from <http://www.cdc.gov/heartdisease/>
- Center for Disease Control and Prevention [CDC] (2013b). High Blood Pressure. Retrieved June 28, 2013, from <http://www.cdc.gov/bloodpressure/>
- Center for Disease Control and Prevention [CDC] (2013c). Lung Cancer. Retrieved July 22, 2013, from [http://www.cdc.gov/cancer/lung/basic\\_info/risk\\_factors.htm](http://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm)
- Center for Disease Control and Prevention [CDC] (2013d). Sexually Transmitted Diseases (STDs): Chlamydia. Retrieved May 24, 2013, from <http://www.cdc.gov/std/chlamydia/default.htm>
- Center for Disease Control and Prevention [CDC] (2013e). Sexually Transmitted Diseases (STDs): Syphilis. Retrieved July 22, 2013, from <http://www.cdc.gov/std/syphilis/default.htm>
- Center for Disease Control and Prevention [CDC] (2013f). Breast cancer. Retrieved July 22, 2013, from <http://www.cdc.gov/cancer/breast/>
- Center for Disease Control and Prevention [CDC] (2013g). HIV/AIDS: What is HIV? Retrieved June 13, 2013, from <http://www.cdc.gov/hiv/basics/whatishiv.html>

## References (continued)

- Center for Disease Control and Prevention [CDC] (2014a). Division for Heart Disease and Stroke Prevention: Fact Sheets. Retrieved April 16, 2014, from [http://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/hds\\_index.htm](http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/hds_index.htm)
- Center for Disease Control and Prevention [CDC] (2014b). High Blood Pressure: High Blood Pressure Facts. Retrieved April 16, 2014, from <http://www.cdc.gov/bloodpressure/facts.htm>
- Center for Disease Control and Prevention [CDC] (2014c). High Blood Pressure: High Blood Pressure Educational Materials for Patients. Retrieved April 16, 2014, from [http://www.cdc.gov/bloodpressure/materials\\_for\\_patients.htm](http://www.cdc.gov/bloodpressure/materials_for_patients.htm)
- Ensor, K.B., Raun, L.H., Persse, D. (2013). A case-crossover analysis of out-of-hospital cardiac arrest and air pollution. *Circulation* 2013, 127 (11), 1192-1199.
- The Environmental Protection Agency [EPA] (2005). Air Quality Criteria for Particulate Matter. Nation Center for Environmental Assessment, Office of Research and Development, Research Triangle Park, NC. EPA/600/P-99/002bf.
- The Environmental Protection Agency [EPA] (2006). Air Quality Criteria for Ozone and Related Photochemical Oxidants. National Center for Environmental Assessment, Office of Research and Development, Research Triangle Park, NC, EPA/600/R-05/004aF-cF.
- The Environmental Protection Agency [EPA] (2012a). Superfund sites where you live. Retrieved June 27, 2013, from <http://www.epa.gov/superfund/sites/>
- The Environmental Protection Agency [EPA] (2012b). Air and radiation: National Ambient Air Quality Standards (NAAQS). Retrieved June 27, 2013 from <http://www.epa.gov/air/criteria.html>
- The Environmental Protection Agency [EPA] (2013). Envirofacts: Toxics Release Inventory (TRI). Retrieved June 27, 2013, from <http://www.epa.gov/enviro/facts/tri/>
- The Federal Bureau of Investigation (n.d.). Uniform crime reports: Crime in the United States 2011. Retrieved June 28, 2013, from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-4>
- Haggar, F., & Boushey, R. (2009). Colorectal cancer epidemiology: Incidence, mortality, survival, and risk factors. *Clinics in Colon Rectal Surgery* 22(4): 191–197. Retrieved June 25, 2013, from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796096/#r22191-2>
- Hamilton B. E., Martin J. A., Ventura, S. J. (2012). Births: Preliminary data for 2011. *National Vital Statistics Reports*; 61(5), 1-19. Hyattsville, MD: National Center for Health Statistics. Retrieved June 19, 2013, from [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_05.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_05.pdf)
- Healthy People 2020 (2013a). Access to Health Services. Retrieved June, 23, 2013, from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=1>
- Healthy People 2020 (2013b). Mental Health and Mental Disorder. Retrieved May 23, 2013, from <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=28#two>
- Healthy People 2020 (2013c). 2020 Topics and objectives: Maternal, infant, and child health. Retrieved August 28, 2013, from <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26>
- Healthy People 2020 (2013d). 2020 Topics and objectives: Maternal, infant, and child health. Retrieved June 26, 2013, from <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=26#85899>
- Houston-Galveston Area Council Basin Highlights Report (2013).
- Houston-Galveston Area Council Water Resources Information Map (2013).
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2011a). Alcohol use: If you drink, keep it moderate. Retrieved July 22, 2013, from <http://www.mayoclinic.com/health/alcohol/SC00024>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2011b). Colon cancer. Retrieved June 22, 2013, from <http://www.mayoclinic.com/health/colon-cancer/DS00035>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2011c). Colon cancer: Prevention. Retrieved June 22, 2013, from <http://www.mayoclinic.com/health/colon-cancer/DS00035/DSECTION=prevention>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2012). HIV/AIDS: Definition. Retrieved June 13, 2013, from <http://www.mayoclinic.com/health/hiv-aids/DS00005>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2013a). Gonorrhea. Retrieved July 22, 2013, from <http://www.mayoclinic.com/health/gonorrhea/DS00180>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2013b). Syphilis. Retrieved July 22, 2013, from <http://www.mayoclinic.com/health/syphilis/DS00374>
- Mayo Foundation for Medical Education and Research [Mayo Clinic] (2014). High blood pressure (hypertension). Retrieved April 16, 2014, from <http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/basics/definition/con-20019580>
- McNally, B., Robb, R., Mehta, M., Vellano, K., Valderrama, A.L., Yoon, P.W...Center for Disease Control and Prevention [CDC]. (2011) Out-of-hospital cardiac arrest surveillance — Cardiac Arrest Registry to Enhance Survival (CARES), United States, October 1, 2005–December 31, 2010. *Morbidity and Mortality Weekly Report: Surveillance Summaries*, 60(8),1-19.
- Medline Plus (2013a). Health Screening. Retrieved August 22, 2013, from <http://www.nlm.nih.gov/medlineplus/healthscreening.html>
- Medline Plus (2013b). Air pollution. Retrieved June 15, 2013, from <http://www.nlm.nih.gov/medlineplus/airpollution.html>

## References (continued)

- National Cancer Institute (n.d.). Cervical Cancer. Retrieved June 22, 2013, from <http://www.cancer.gov/cancertopics/types/cervical>
- National Diabetes Information Clearinghouse (2012). Diagnosis of Diabetes and Pre-diabetes. Retrieved July 6, 2013, from <http://diabetes.niddk.nih.gov/dm/pubs/diagnosis/#1>
- National Institute of Diabetes and Digestive and Kidney Diseases (2013). Overweight and Obesity Statistics. Retrieved July 5, 2013, from <http://www.win.niddk.nih.gov/statistics/#ref2>
- National Institute of Environmental Health Sciences [NIH], (2013). Water pollution. Retrieved June 15, 2013, from <http://www.niehs.nih.gov/health/topics/exposure/water-poll/index.cfm>
- National Stroke Association (2013). What is Stroke? Retrieved June 21, 2013, from <http://www.stroke.org/site/PageServer?pagename=stroke>
- Raphael, D. (Ed.). (2009). *Social Determinants of Health: Canadian Perspectives* (Second ed.). Toronto, Ontario: Canadian Scholars' Press Inc. Retrieved from [http://jasper.yorku.ca/QuickPlace/draphael/Main.nsf/\\$defaultview/646C5D8AE8FB2CE68525710E00733DCE/\\$File/Sample%20Pages-Chapter-SDOH-revised.pdf?OpenElement](http://jasper.yorku.ca/QuickPlace/draphael/Main.nsf/$defaultview/646C5D8AE8FB2CE68525710E00733DCE/$File/Sample%20Pages-Chapter-SDOH-revised.pdf?OpenElement)
- Raun et al (2013). *Geospatial Analysis for Targeting Out-of-Hospital Cardiac Arrest Intervention*. Am J Prev Med 2013;45(2):137-142. Retrieved July 1, 2014 from [http://www.ajpmonline.org/article/S0749-3797\(13\)00272-9/pdf](http://www.ajpmonline.org/article/S0749-3797(13)00272-9/pdf)
- Susan G. Komen (2012). Understanding breast cancer: Risk factors and prevention introduction. Retrieved June 22, 2013, from <http://ww5.komen.org/BreastCancer/LowerYourRiskIntroduction.html>
- Texas Cancer Registry [TCR] (2013). Texas Cancer Registry Cancer Inquiry System. Retrieved August 10, 2013, from <http://www.cancerrates.info/tx/index.php>
- Texas Commission on Environmental Quality [TCEQ] (2013). Compliance with eight-hour ozone standard. Retrieved from [http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr\\_attainment.pl](http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_attainment.pl)
- Texas Commission on Environmental Quality [TCEQ] (n.d.). Texas Air Monitoring Information System (TAMIS) Database <http://www5.tceq.state.tx.us/tamis/index.cfm?fuseaction=home.welcome>
- U.S. Census Bureau (2010). Age and sex distribution in 2010. Retrieved June 10, 2013, from <http://factfinder2.census.gov>
- U.S. Census Bureau (2011). Statistical brief: Poverty area. Retrieved June 10, 2013, from <http://www.census.gov/population/socdemo/statbriefs/povarea.html>
- U.S. Census Bureau (2012a). Current Population Survey (CPS) – Definitions: Family household. Retrieved June 15, 2013, from <http://www.census.gov/cps/about/cpsdef.html>
- U.S. Census Bureau (2012b) Current Population Survey (CPS) – Definitions: Household non-family. Retrieved June 12, 2013, from <http://www.census.gov/cps/about/cpsdef.html>
- U.S. Census Bureau (2012c) Current Population Survey (CPS) – Definitions: poverty definitions. Retrieved June 12, 2013, from <http://www.census.gov/cps/about/cpsdef.html>
- U.S. Census Bureau (2013). Educational Attainment. Retrieved June 22, 2013, from <http://www.census.gov/hhes/socdemo/education/>
- U.S. Census Bureau, American Community Survey [ACS] (2007-2011). American Fact Finder.
- U.S. Department of Health and Human Services and U.S. Department of Agriculture (2005). Dietary Guidelines for Americans. 6th Edition, Washington, DC: U.S. Government Printing Office. Retrieved July 22, 2013, from <http://www.health.gov/dietaryguidelines/dga2005/document/pdf/DGA2005.pdf>
- U.S. Department of Health and Human Services: Office of the Assistant Secretary for Health (2010). The environment and your health: Health effects of water pollutions. Retrieved June 15, 2013, from <http://www.girlshealth.gov/environment/water/effects.cfm>
- U.S. Department of Health and Human Services: Office of the Assistant Secretary for Planning and Evaluation (2013). 2013 Poverty Guidelines: the poverty guidelines updated periodically in the Federal register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2). Retrieved June 18, 2013, from <http://aspe.hhs.gov/poverty/13poverty.cfm>
- U.S. Preventive Services Task Force (2013). Screening for HIV. Retrieved August 22, 2013, from <http://www.uspreventiveservicestaskforce.org/uspstf/uspshivi.htm>
- Walters, J. H., Moore, A., & Berzofsky, M. (2013). *Household Burglary, 1994-2011*. ( No. NCJ 241754).The Bureau of Justice Statistics. Retrieved on June 28, 2013 from <http://www.bjs.gov/content/pub/pdf/hb9411.pdf>
- The White House (n.d.). The White House Health Care that works for Americans. Retrieved June 24, 2013, from <http://www.whitehouse.gov/healthreform/healthcare-overview>
- Wisconsin Department of Health Services (2013). Communicable Diseases. Retrieved June 18, 2013, from <http://www.dhs.wisconsin.gov/communicable/>
- World Health Organization [WHO] (2013). Mental Health: Strengthening Our Response. Retrieved July 22, 2013, from <http://www.who.int/mediacentre/factsheets/fs220/en>

## Data Sources

American Community Survey (ACS) 2007-2011

Behavioral Risk Factor Surveillance System (BRFSS) 2008-2010

Bureau of Epidemiology/Houston Department of Health and Human Services (HDHHS) 2008-2012

Bureau of Epidemiology/HDHHS 2010-2011

Bureau of HIV/STD Prevention / HDHHS 2012

Bureau of Pollution Control and Prevention/HDHHS, 2010

The Environmental Protection Agency (EPA), 2012-2013

Health of Houston Survey / UT SPH 2010

Houston Police Department Crime Report December 2011-November 2012

Office of Strategic Decision Support, Health and Human Services Commission, SFY 2012

Texas Cancer Registry, 2013

Texas Commission on Environmental Quality (TCEQ), 2010

Texas Youth Risk Behavior Surveillance System (YRBSS) 2011

Unites States (U.S.) Census Bureau, American Community Survey [ACS] (2007-2011)

Unites States (U.S.) Census Bureau 2010

Vital Statistics Unit, Center for Health Statistics, Texas, Department of State Health Services (DSHS) 2007-2011

## Super Neighborhoods in Area C

- ◆ Addicks Park Ten
- ◆ Afton Oaks / River Oaks Area
- ◆ Alief
- ◆ Braeburn
- ◆ Brays Oaks
- ◆ Briar Forest
- ◆ Carverdale
- ◆ Central Southwest
- ◆ Downtown
- ◆ Eldridge / West Oaks
- ◆ Fondren Gardens
- ◆ Fort Bend / Houston
- ◆ Fourth Ward
- ◆ Greater Heights
- ◆ Greater Uptown
- ◆ Greenway / Upper Kirby
- ◆ Gulfton
- ◆ Langwood
- ◆ Lazy Brook / Timber grove
- ◆ Memorial
- ◆ Meyerland
- ◆ Mid West
- ◆ Midtown
- ◆ Neartown - Montrose
- ◆ Northside Village
- ◆ Sharpstown
- ◆ South Main
- ◆ Spring Branch Central
- ◆ Spring Branch East
- ◆ Spring Branch North
- ◆ Spring Branch West
- ◆ Washington Avenue Coalition / Memorial Park
- ◆ Westbranch
- ◆ Westbury
- ◆ Westchase
- ◆ Westwood
- ◆ Willow Meadows / Willowbend Area



# COMMUNITY HEALTH PROFILE

**Health Service Delivery Area C**  
**(Central-West and South-West)**  
**2014**

Houston Department of Health and Human Services

