







State of

# Asian American & Pacific Islander Health

Houston/Harris County

# **Table of Contents**

Introduction	
A Model Minority?	3
AAPI Population in the US and Texas	
AAPI in the US	
AAPI in Texas	
<b>AAPI Socio-Demographics in Houston/Harri</b>	s County
Geographic Distribution and Population Subgroups	
Age Groups	
Culture	
EducationLanguage Proficiency	
Marital Status	
Employment	
Health Insurance Coverage	
Income and Poverty	14
<b>Health Behaviors and Health Conditions</b>	
Overall Health Status	18
Overweight/Obesity	
Smoking and Binge Drinking	
Leading Causes of DeathHealth Conditions: Cardiovascular Disease,	21
Cancer, Diabetes, Depression	21
Heart Disease	
Cancer	
Diabetes	26
Tuberculosis	28
Mental Health	30
Maternal and Infant Health	34
Summary	36
References	38

Nichols B, Nepal V, Banerjee D. State of Asian American and Pacific Islander Health in Houston/Harris County. Houston TX: Houston Health Department. April, 2020.

Graphic Design by Robert "Bob" Schell, Houston Health Department



# INTRODUCTION

Asian Americans and Pacific Islanders (AAPI) have made important contributions to the development of the United States, beginning in the 1850s when young single men were recruited from southern China to work as miners, railroad builders, farmers, factory workers and fishermen. Over time, AAPI immigrants have come from many countries and have brought diverse cultures and skills. Currently, many AAPI immigrants are highly educated and fill much needed positions in professions such as healthcare, science, and computer operations. Others take skilled or unskilled blue-collar roles, or start their own businesses. As is true for many immigrants, many AAPI continue to immigrate to the US to find opportunities for work and a better life for themselves and their families.<sup>1</sup>

# A MODEL MINORITY?

Asian Americans are a diverse racial group with ancestry in more than 30 ethnic subgroups from various Asian countries. In many ways, as a group, they are economically and educationally successful, and enjoy relatively good health in the US. Because of this, Asian Americans have been portrayed as a model minority, similar in many ways to the white population. This image of success often results in assumptions that Asian Americans do not experience difficulties or health issues, so they are left out of research and policy considerations. This idea of Asian Americans as a model group, however, is a myth.

While some Asian Americans are indeed economically successful and notably healthy, that is not the case for all in this group. Immigrants of Asian descent differ in their immigration history, resettlement patterns and experiences, socioeconomic status, occupational skills, primary languages, religion, cultural values and beliefs, and ethnic identity. There are important differences and disparities between these groups.<sup>2</sup>

This report will address some of the strengths and challenges for those in the Asian American population, with measures addressing sub-groups when that data is available. Data for Native Hawaiian/Other Pacific Islander groups will also be presented if available. While research and demographic information is increasing for AAPI, there are still many gaps in our knowledge of the health and well-being status for this group.

# **AAPI POPULATION IN THE US AND TEXAS**

The Asian American and Pacific Islander populations in the US are diverse and rapidly growing groups, numbering an estimated 19 million in 2018, and comprising 5.8% of the US population, according to the US Census Bureau. In Houston/Harris County, residents include an estimated 309,400 Asians (6.8% of the total population), and 3,019 Pacific Islanders (0.1% of the population).<sup>3</sup>

**Asian Americans** are Americans with "origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam." <sup>3</sup>

This population was estimated at 17.7 million in 2018 in the US, and 1.1 million in Texas. Texas is the state with the third largest Asian American population, following California and New York.<sup>4</sup>

Native Hawaiian or Other Pacific Islander refers to persons with origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.<sup>5</sup> This population was an estimated 1.3 million in the US, and 54,801 in Texas in 2018. Texas ranks fourth among states in total Pacific Islander population, following Hawaii, California, and Washington.<sup>6</sup>

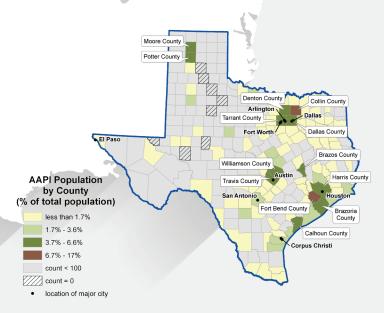
# **AAPI IN THE US**

The AAPI population is rapidly becoming a larger portion of the US population. The percentage of Asian Americans grew 72% between 2000 and 2015, the fastest growth rate of any major racial or ethnic group. By comparison, the population of the second-fastest growing group, Hispanics, increased 60% during the same period.<sup>7</sup>

The Chinese (except Taiwanese) population (5.0 million) was the largest Asian group in the US in 2017, followed by Asian Indian (4.4 million), Filipino (4.0 million), Vietnamese (2.1 million), Korean (1.9 million) and Japanese (1.5 million). These estimates represent the number of people who described themselves in the American Community survey as Asian, as well as people who reported that they are Asian in combination with one or more other race(s).8

### **Texas AAPI Population by County**

Percentage of the Total Population in Each County



Data Source: US Census Bureau 2010. Map by the Houston Health Department.

# **AAPI IN TEXAS**

In Texas, AAPI are concentrated in the largest cities. The majority live in Dallas/Fort Worth, Houston and Austin.



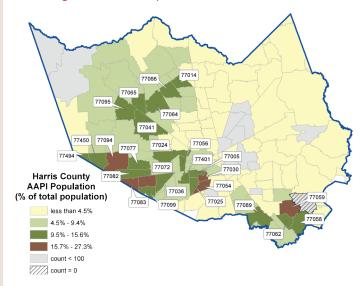
# **AAPI SOCIO-DEMOGRAPHICS IN HOUSTON/HARRIS COUNTY**

# **GEOGRAPHIC DISTRIBUTION AND POPULATION SUBGROUPS**

The AAPI population in Houston/Harris County has settled largely in the western and southern parts of the county. The AAPI in some ZIP codes comprise between 15.7% to 27.3% of the population (see ZIP codes in brown on the map), while other ZIP codes have less than 4.5% AAPI.

# Harris County AAPI Population by ZIP Code

Percentage of the Total Population in Each ZIP Code



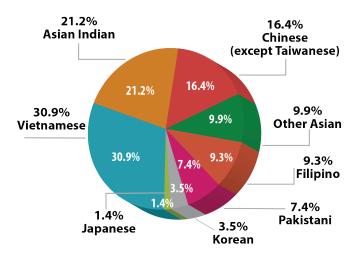
Data Source: US Census Bureau 2010. Map by the Houston Health Department

According to the American Community Survey, Asians numbered an estimated 309,400 in Houston/Harris County in 2017, or 6.8% of the total population. The largest group is Vietnamese, followed by Asian Indian, Chinese and Filipino. The groups are:

- 95,590—Vietnamese
- 65,494—Asian Indian
- 50,865—Chinese (except Taiwanese)
- 28,783—Filipino
- 23,021—Pakistani
- 10,923—Korean
- 4,225—Japanese
- 4,187—Cambodian
- 3,382—Taiwanese
- 2,907—Thai

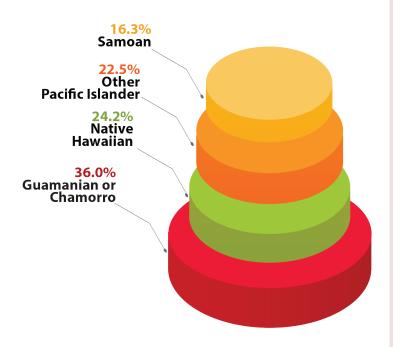
- 2,638—Burmese
- 2,512—Nepalese
- 1,749—Bangladeshi
- 1,748—Laotian
- 1,307—Indonesian
- 1,068—Sri Lankan
- 298—Malaysian
- 230—Bhutanese
- 42—Hmong
- 8,423—Other, or two or more Asian ancestry groups

# Asian Population in Houston/Harris County TX 2013-2017



Data Source: American Community Survey 2013-2017, 5-year estimates

# Native Hawaiian and Other Pacific Islander Population in Houston/Harris County TX 2013-2017



Data Source: American Community Survey 2013-2017, 5-year estimates



Native Hawaiian and other Pacific Islanders numbered an estimated 3,091 in Houston/Harris County in 2017, or 0.1% of the total population. The largest group was Guamanian or Chamorro, followed by Native Hawaiian and Samoan. The groups are:

- 1,114 Guamanian or Chamorro
- 748 Native Hawaiian
- 504 Samoan
- 695 Other Pacific Islander



# AGE GROUPS IN THE GREATER HOUSTON POPULATION

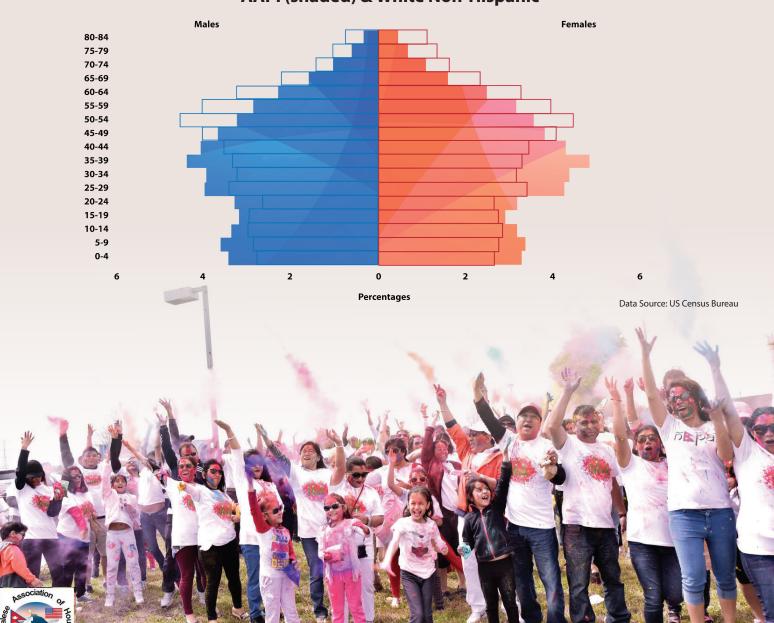
AAPI are a younger population compared to whites. The following age pyramid shows the ages of AAPI compared to whites in the Houston area, which includes Harris, Brazoria, Fort Bend, and Galveston Counties. The percentages of males are shown on the left side of the chart and females are on the right. The age categories are grouped into 5-year increments, with the youngest in the population located at the bottom of the chart. AAPI have higher proportions of children, youth and younger adults (up to the age of

44 years) compared to whites. However, the largest AAPI age group, those aged 25 to 44 years, will be turning into an older age group soon, which will have implications for the care of older AAPIs.

Those AAPI who were born in foreign countries and immigrated to the Houston area are older compared to AAPI who were born in the US. Among foreignborn, 86% are 18 years and older. Among those born in the US, only 20% are 18 years and older.

# AAPI in the Greater Houston Area Including Harris, Brazoria, Fort Bend, and Galveston Counties

# AAPI (shaded) & White Non-Hispanic



# **CULTURE**

AAPI culture can be traced back many centuries to the development of customs, traditions, art, music, literature, religion, architecture, and other key aspects of AAPI lives. Immigrants from each Asian and Pacific Island country have their own distinctive culture, history, language, beliefs, and circumstances surrounding their journeys to the US. The characteristics of AAPI vary according to their home country background, and also according to how long they have lived in the US and acclimated to US culture.

Some features of AAPI culture can be related to their health status. For example, Asian cultures are typically high context cultures in which gesture, body language, eye contact, pitch, intonation, word stress, and the use of silence are as important as the actual words that are spoken. Because of this, direct questions are less likely in the Asian community and may be seen as abrupt. This can lead to communication difficulties with health professionals, who may miss part of what the AAPI person is trying to communicate.9

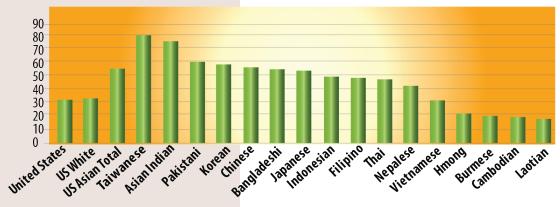


# **EDUCATION**

The AAPI population, on average, is highly educated. However, there are marked differences among groups based on their country of origin and reason for immigration. Among Asians in the United States, those with a bachelor's degree or higher, including graduate and professional training, range from a high of 80.5% of Taiwanese to a low of 17.6% among Laotians.

# **Education: Percentage with a Bachelor's Degree or Higher, Aged 25 Years** and Older

United States 2018

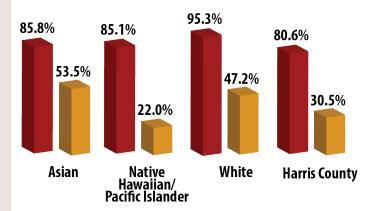


In Harris County, over half of Asian adults older than 25 years have a bachelor's degree or higher, which is higher than the average (30.5%) for all races/ ethnicities in Harris County and higher than whites (47.2%). Fewer Native Hawaiian/Other Pacific Islanders (22.0%) have a bachelor's degree or higher compared to Asians and whites. The percentage of Harris County AAPI aged 25 and older who have graduated from high school is lower compared to the white population, but higher than the total population of Harris County.

AAPI have higher percentages of both college graduates and those who have not completed high school compared to whites which reflects the differences in education among the various subgroups within the Asian population, in which some groups are highly educated and others are less so.

Data Source: American Community Survey 2018, 1-Year Estimate

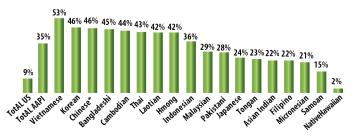
# **Educational Attainment, Age** 25+, in Houston/Harris County TX 2013-2017



Data Source: American Community Survey 2013-2017, 5-Year Estimate

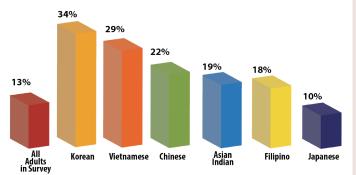
# LANGUAGE PROFICIENCY

**Limited English Proficiency Rates in** the US Among American Asian and **Native Hawaiian/Other Pacific Islanders Subgroups** 2006-2010



\*Except Taiwanese Data Source: AAPCHO<sup>11</sup>

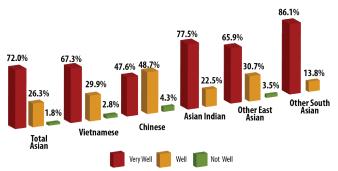
Asian Americans Reporting Poor Patient-**Physician Communication Among US Adults Surveyed by the Harvard School** of Public Health and the Robert Wood **Johnson Foundation 2007** 



Data Source: AAPCHO<sup>13</sup>

# **English Proficiency Among Harris County Residents, 2018**

Percentage Reporting that They Spoke **English Very Well, Well, or Not Well** 



Data Source: Health of Houston Survey 2018

Language barriers present a challenge in accessing many resources, such as employment, education and health care. For example, people who speak a language other than English at home are less likely to have a usual healthcare provider, a routine check-up, and a primary care visit in the past year, compared to those who speak English at home. Those with limited English proficiency are more likely to report poor mental and physical health, more often forego necessary health care, and are less likely to use preventive services.<sup>10</sup>

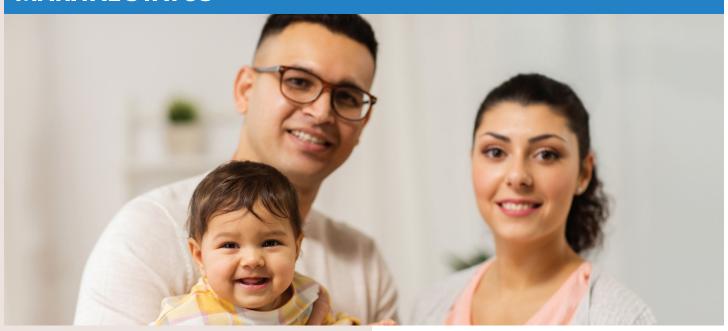
English language proficiency also impacts a person's ability to communicate with their doctor and understand instructions for their care. There are marked differences among AAPI in their perception of the quality of their communication with their physicians. In 2007, the Harvard School of Public Health and the Robert Wood Johnson Foundation surveyed 4,334 randomly selected US adults. The survey compared 14 racial and ethnic groups with the white population, assessing how they saw their care from physicians. One component was patientphysician communication, which was seen as problematic among several AAPI groups.<sup>12</sup>

Learning to speak English is a barrier for many immigrants. Others may speak English well, but choose to speak their native language at home. In Harris County, 43.7% of residents over five years of age were reported to speak languages other than English at home. AAPI languages are spoken at home by 4.6% of the Harris County population, which can be compared to the total Harris County AAPI population of 6.9%. Of those who speak AAPI languages at home, about half (47.8%) reported that they spoke English "less than very well," according to the American Community Survey estimate for 2013-2017.14

According to the Asian American Health Needs Assessment (AsANA) study, more than half of the Vietnamese in Houston were unable to speak English well.<sup>15</sup> Language barriers are one of the key obstacles many Asians face in accessing needed resources including healthcare related services.

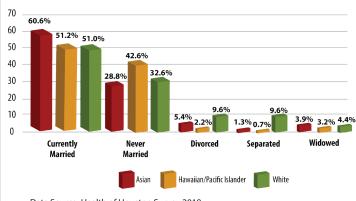
The Health of Houston Survey, conducted by the University of Texas School of Public Health in 2018, found that the percentage of Asian Non-Hispanics who reported speaking English "Very Well" was 72.0% among the total Asian American population, including 77.5% of Asian Indians, 67.35 of Vietnamese, and 47.6% of Chinese.16

# **MARITAL STATUS**



Higher proportions of Asians (60.6%) aged 15 years and older are currently married compared to Hawaiian/Other Pacific Islanders (51.2%) and whites (51.0%) in Harris County. Whites are more likely to be divorced or separated, while Hawaiian/Other Pacific Islanders are more likely to have never married. Literature on health and mortality by marital status has consistently identified that unmarried individuals generally report poorer health and have a higher mortality risk than their married counterparts, with men being particularly affected in this respect.<sup>17</sup>

**Marital Status for Asian, Native Hawaiian/** Pacific Islander, and White Percentages, Age 15 and Older, Harris County TX, 2013-2017



#### Data Source: Health of Houston Survey 2018

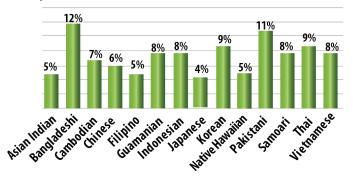
# **EMPLOYMENT**

Similar percentages of the population aged 16 and older are in the labor force in Harris County among Asians (65.9%), Native Hawaiians/Other Pacific Islanders (62.7%), and whites (67.8%), according to the American Community Survey 5-year estimate for 2013-2017.



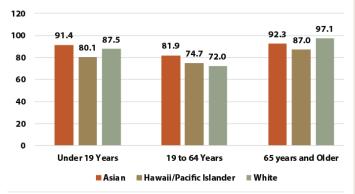
# **HEALTH INSURANCE COVERAGE**

# **AAPI Uninsured Percentages in the** US, 2016

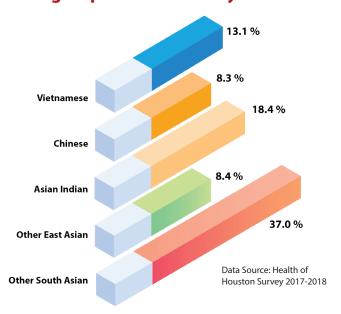


Data Source: Asian & Pacific Islander American Health Forum<sup>19</sup>

# Percentage of Health Insurance **Coverage by Age for Asians, Native** Hawaiians/Other Pacific Islanders, and Whites in Harris County TX, 2013-2017



# **Percentage of Uninsured by Asian Subgroup in Harris County 2017-2018**



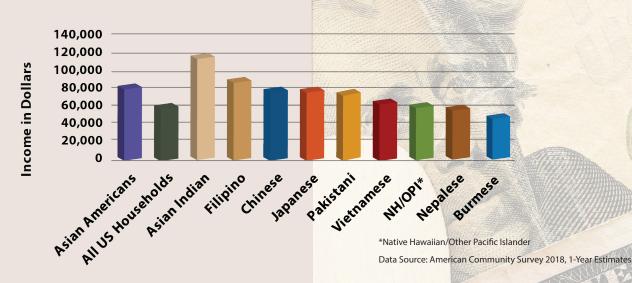
Health insurance provides important access to medical care and preventive health services, and helps to ensure that costs will be affordable. Many AAPI face barriers in accessing health insurance. The percentages of AAPIs without health insurance in the US varies by nationality. Specific ethnic groups have notably high rates of uninsured. In 2016, 14% of Nepalese Americans, 12% of Micronesians and 9% of Laotians were uninsured.18 Percentages of those lacking health insurance for other AAPI subgroups are shown in the chart.

According to the American Community Survey, health insurance coverages in Harris County for Asians, Native Hawaiians/Other Pacific Islanders, and whites are highest among those under 19 years and those aged 65 years and older. In the younger and older age groups, the Native Hawaiian/Other Pacific Islander group had lower percentages of those with health insurance.

In the adult age group of 19 to 64 years old, nearly 38,000 Asians and 500 Native Hawaiians/Other Pacific Islanders are without health insurance in Harris County.

Lack of insurance is associated with higher incidence of illness and death. Those who are uninsured are less likely to access healthcare on a regular basis for preventive health than those who are insured. Also, many uninsured and underinsured do not get the full benefit of treatment and care that is needed to address existing health conditions.<sup>20</sup> Poor health literacy as well as other cultural factors may cause underutilization of health care services even among the insured AAPI.<sup>21</sup>

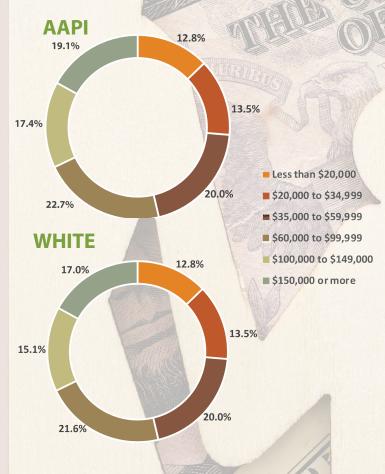
#### **AAPI Median Household Income in the US 2018**



When looked at as one large group, incomes in the US Asian population compare well to the US population average. However, incomes vary widely among Asian subgroups. The median annual household income of households headed by Asian Americans was estimated at \$83,898, compared with \$61,937 among all US households in 2018, according to the American Community Survey. But incomes range from Asian Indian households, with the highest median household income (\$119,858) to Burmese with the lowest income (\$45,348).

In Harris County, during the combined years of 2013-2017, higher percentages of AAPI were in groups with incomes both less than \$20,000 and over \$100,000, compared to whites. Whites were more likely to be in the middle-income groups of \$20,000 to \$59,999.

# Household Income in the Last 12 Months Harris County TX 2013-2017



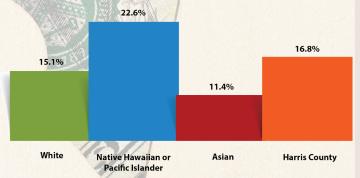
Data Source: American Community Survey 2013-2017, 5-year estimates

#### **Household Income Among the Largest Asian Subgroups** Harris County TX 2017-2018 60% 50% 40% 30% 20% 10% Vietnamese Chinese Asian **Other East Other South** Indian **Asian Asian Asian** \$34,999 or less \$35,000 -\$74,999 \$75,000 or more

Data Source: Health of Houston Survey 2017-2018

# **Poverty Status in the Past 12 Months**

Harris County TX 2013-2017



Data Source: American Community Survey 2013-2017, 5-Year Estimates

According to the Health of Houston Survey, Chinese (56.0% of Chinese households), Asian Indians (55.5%), and Other East Asians (56.1%) had the highest household incomes of \$75,000 or above. Those with household incomes of \$34,999 or below were more likely to be Vietnamese (45.6%) or Other South Asian (48.4%).

The Harris County Asian population has lower percentages of poverty (11.4%) compared to the Native Hawaiian/Other Pacific Islander group (22.6%), the white population (15.1%) and the total for all Harris County residents (16.8%).





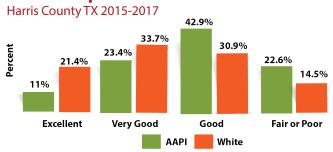
# **OVERALL HEALTH STATUS**

Self-reported current health status is a good predictor of future disability, hospitalization and mortality.<sup>22</sup> Overall, Asian Americans and Pacific Islanders living in Harris County appear to be healthy, with 77.3% reporting that their health is good, very good, or excellent. AAPI are less likely, however, to report excellent or very good health compared to whites in Harris County. Unfortunately, local level data is not available to provide inferences about the health status of Native Hawaiians/Other Pacific Islanders due to the small numbers in the population.

As is true in many measures, however, differences exist between the various Asian subgroups. In the Houston area, the Health of Houston Survey for 2017-2018 found that Asian Indians were most likely to report health that was Very Good or Excellent, Other South Asians had the highest percentage who reported Excellent health, and Vietnamese had the lowest overall percentage reporting Very Good or Excellent health.

Overall health varies also between racial/ethnic immigrants compared to those born in the US. Immigrants typically have better infant, child, and adult health and lower disability and mortality rates compared to the US-born.<sup>24</sup>

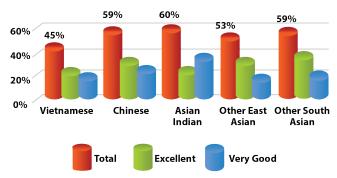
# **Overall Health Status Reported by AAPI Compared to Whites**



Data Source: Texas Behavioral Risk Factor Surveillance System Survey (BRFSS)<sup>13</sup>

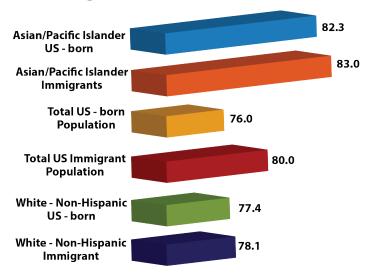
# **Percentage of AAPI Reporting Excellent/ Very Good Health Status**

Harris County TX 2017-2018



Data Source: Health of Houston Survey 2017-2018

# Life Expectancy at Birth (Average Lifetime in Years) By Race/Ethnicity and Immigration Status 1999-2001

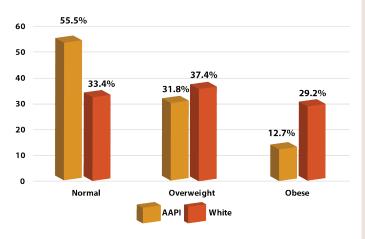


Data Source: Singh GK, et al.25

# **OVERWEIGHT/OBESIT**

# Percentage of Normal/Overweight/ **Obese, AAPI Compared to Whites**

Harris County TX 2015-2017



Data Source: Texas BRFSS Survey

In general, AAPI are more likely to be a normal weight, with fewer who are overweight or obese compared to whites. Obesity rates are higher among AAPI who were born in the US compared to those born in foreign countries.26

Some resources suggest that the BMI for AAPI should be evaluated differently compared to the white population. While a BMI over 25 is considered overweight for whites, and therefore less healthy than a normal weight, that number can be different for AAPI. The American Diabetes Association noted that some data show a BMI over 23 is unhealthy for Asian Americans, while Pacific Islanders are considered overweight and at risk for diabetes at a BMI of 27.27

Obesity rates vary among AAPI. While research is limited, studies have determined that Asian Americans in general have lower waist circumferences and Body Mass Indexes (BMI) compared to the Native Hawaiian/ Pacific Islander population.<sup>28</sup>

The US Office of Minority Health noted the following concerns about overweight/obesity among Native Hawaiians/Pacific Islanders:

- Native Hawaiians/Pacific Islanders were three times more likely to be obese than the overall Asian American population in 2015.
- Native Hawaiians/Pacific Islanders were 20 percent more likely to be obese than non-Hispanic whites in 2015.
- Native Hawaiian/Pacific Islander adolescents were 50 percent more likely to be overweight compared to white adolescents in 2013.
- A 2014 survey on Native Hawaiians/Pacific Islanders (NHPI) revealed that NHPI sub-populations all had higher obesity rates than both Asian Americans and whites.
- In 2014, Samoans were 5.6 times more likely to be obese as compared to the overall Asian American population.<sup>29</sup>



# **SMOKING AND BINGE DRINKING**

In general, fewer AAPI are smokers compared with whites. Nationally, AAPI groups have the lowest smoking rates among adults of all racial/ethnic groups; however, there are significant differences in smoking rates among subgroups of the AAPI population. During the period 2010-2013, The National Survey on Drug Use and Health found cigarette use in the past 30 days among those aged 18 years and older was lower in all AAPI groups compared to whites, but varied considerably by their native origin.

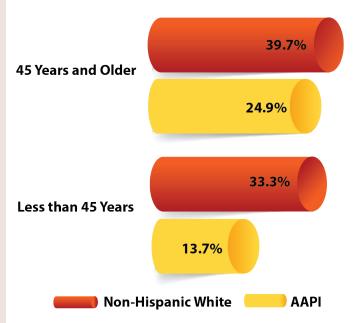
- White 24.9%
- Asian 10.9%
  - Chinese 7.6%
  - Filipino 12.6%
  - Japanese 10.2%
  - Asian Indian 7.6%
  - Korean 20.0%
  - Vietnamese 16.3%
- Native Hawaiian/Pacific Islander 22.8%

Smoking rates were also higher among men compared to women in most AAPI subgroups: Chinese (13.1% men versus 2.9% women), Filipino (20.6% versus 7.5%), Asian Indian (11.6% versus 3.3%), and Vietnamese (24.4% versus 7.9%). Smoking prevalence was similar among Korean men (19.3%) and women (20.4%).30

In addition to being less likely to smoke, AAPI are also less likely to have reported excessive alcohol use in the form of binge drinking compared to the white population.

# Percentage Who Smoked at Least 100 **Cigarettes in Their Entire Life**

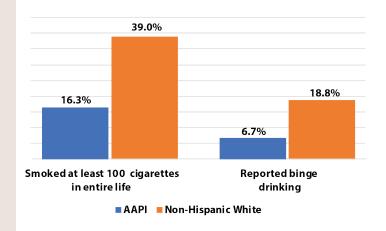
AAPI Compared to Whites, Harris County TX 2015-2017



Data Source: Texas BRFSS Survey

### **Smoking and Binge Drinking**

AAPI Compared to Whites, Harris County TX 2015-2017



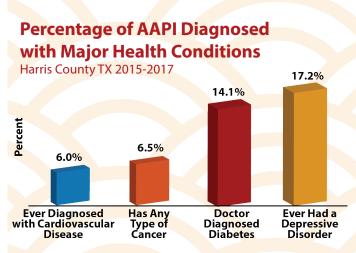
Data Source: Texas BRFSS Survey

# **LEADING CAUSES OF DEATH**

As with many measures, the leading causes of death among Asians have been found to vary according to the nationality subgroups. A research group examined national mortality records for the six largest Asian subgroups (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese) and non-Hispanic whites from 2003-2011, and ranked the leading causes of death. As an overall group, cancer was the leading cause of death for Asian Americans. However, when the researchers looked into subgroups, they found that among women, cancer was the leading cause of death for every group except Asian Indians. In men, cancer was the leading cause of

death among Chinese, Korean, and Vietnamese men, while heart disease was the leading cause of death among Asian Indians, Filipino and Japanese men. The proportion of death due to heart disease for Asian Indian males was nearly double that of cancer. Cancer and diabetes were increased in Asian Indians and Vietnamese. stroke mortality was higher in Asian Indians, suicide mortality was increased in Koreans, and mortality from Alzheimer's disease was increased for all racial/ethnic groups from 2003-2011. At the same time, overall mortality is lower in Asian Americans compared to non-Hispanic whites.31

# **HEALTH CONDITIONS: CARDIOVASCULAR DISEASE, CANCER, DIABETES, DEPRESSION**



Data Source: Texas BRFSS Survey

AAPI in Houston/Harris County have been diagnosed with the same major health issues as other racial/ethnic groups. They are less likely to report that they have been diagnosed with cardiovascular disease, cancer, or a depressive disorder compared to whites, and are more likely to report having been diagnosed with diabetes. However, these comparisons do not necessarily mean that there are fewer cases of heart disease, cancer, and depression among AAPI. Other factors, such as lack of access to healthcare, education, income, and cultural barriers may play a role in an accurate assessment of the presence of these conditions.

# **HEART DISEASE**

Cardiovascular disease, which encompasses diseases of the heart and circulatory system, does not appear to be a risk of concern for AAPI, since overall measures of heart disease are lower compared to the other population groups in Harris County; however these measures vary by subgroup.

According to the National Center for Health Statistics, the prevalence of heart disease nationwide is also lowest in AAPI. Prevalence refers here to the number of people who have been told by a health professional that they had any kind of heart condition or disease.

#### **Deaths from Cardiovascular Disease Harris County TX 2017** 305.6 Rates per 100,000 Population 227.6 156.9 127.0 AAPI White Black Hispanic

Data Source: CDC Wonder Website<sup>32</sup>

# **Percentage Diagnosed with Heart Disease** in the US 2017 <sub>11.5%</sub> 9.5% 7.4% 6.0% AAPI White Black Hispanic

Data Source: CDC National Center for Health Statistics 33



# Increased Risk of Heart Disease in South Asians

However, when looking into subgroups, the risk is significantly higher for South Asians. South Asia includes the countries in the southern part of Asia: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

South Asians represent approximately 25% of the world's population, and yet they account for 60% of the world's heart disease patients. South Asians living in the US are more likely to die from heart disease than the general population; they also have a higher mortality rate from ischemic heart disease compared with other Asian ethnic groups and non-Hispanic whites. Studies have shown that this group has a significant amount of visceral fat in the abdominal area, the liver and around the heart which causes inflammation and activates certain biological pathways that contribute to atherosclerosis.34

#### "Cataclysmic" Diet and Heart Disease **Among South Asian Americans**

Cardiologist Sandeep Krishnan called dietary patterns among Asian immigrants a "cataclysmic integration of east and west." In his evaluation of diet and arteriosclerosis, he reported that South Asian immigrants typically combine the typical South Asian diet with the Western diet, with dire results. The South Asian diet focuses on carbohydrates (rice, lentils, chapatis, naan) and saturated fats (ghee, butter) with inadequate lean proteins. This high carbohydrate diet, merged with a Western diet of dairy products, fried snacks, pizzas and potatoes has added to the genetic predisposition<sup>35</sup> to insulin resistance many South Asians are facing. Insulin resistance contributes to both diabetes and cardiovascular disease. 36, 37



# **CANCER**

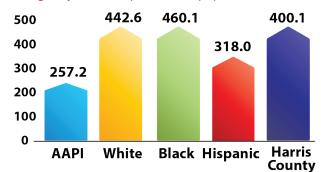
AAPI are healthy in many ways, although there are some specific health concerns that are more prevalent for them. Overall, AAPI are less likely to be diagnosed with new cases of cancer compared to other racial/ethnic groups in Harris County, as can be seen in the chart.

However, AAPI have high rates of some specific cancers. AAPI have high incidence (new cases) rates for both liver and stomach cancers and are twice as likely to die from these cancers as whites. The high AAPI rates of stomach cancer may be due to higher rates of infection among AAPI by the bacteria H. pylori.<sup>39</sup> Harris County male AAPI have higher rates of stomach cancer compared to females for both incidence (new cases) and mortality. This pattern is comparable to national statistics for AAPI.

# **Cancer Incidence (New Cases) Rates for** All Cancers

Harris County TX 2012-2016

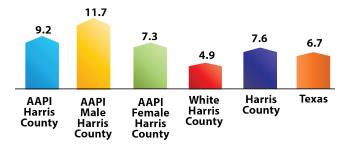
Age adjusted rate per 100,000 population



Data Source: Texas Cancer Registry 38

# Stomach Cancer Incidence (New Cases) **Rates by Race/Ethnicity** Harris County TX 2012-2016

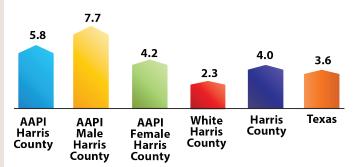
Age adjusted rate per 100,000 population



Data Source: Texas Cancer Registry

# **Stomach Cancer Mortality Rates** Harris County TX 2012-2016

Age adjusted rate per 100,000 population

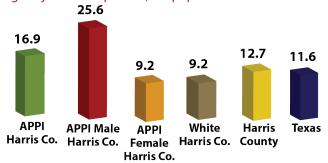


Data Source: Texas Cancer Registry

# **Liver & Intrahepatic Bile Duct Cancer Incidence (New Cases) Rates**

Harris County TX 2012-2016

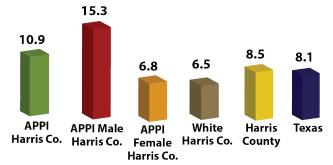
Age adjusted rate per 100,000 population



Data Source: Texas Cancer Registry

# **Liver & Intrahepatic Bile Duct Cancer Mortality Rates Harris County and** Texas 2012-2016

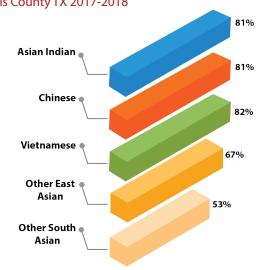
Age adjusted rate per 100,000 population



Data Source: Texas Cancer Registry

# **Percentage of Women Who Report Recommended Pap Test Screening Tests**

Harris County TX 2017-2018



Data Source: Health of Houston Survey 2017-2018

AAPI have the second highest incidence of liver/ intrahepatic bile duct cancer in Texas.40 Liver cancer among AAPI may be related to the high prevalence of hepatitis A and chronic hepatitis B infections that affect the liver.

Asian Americans are twice as likely to develop chronic hepatitis B as compared to whites. In 2016, Asian Americans were eight times more likely to die from hepatitis B than white Americans. 41 In Harris County, male AAPI have the highest risk of mortality from liver/bile duct cancer.

# **Cervical Cancer Screening**

Researchers at the Centers for Disease Control and Prevention (CDC), in a 2016 study, found that the proportion of women aged 21–65 years who received a Pap test within the past three years differed significantly across Asian subgroups, with lower proportions among Asian Indian, Chinese, and Other Asian women. Recent immigrants, those without a usual source of care, and women with public or no health insurance had lower proportions of breast and cervical cancer screening test use.<sup>42</sup>

The Health of Houston Survey found, in 2010, that Asian women were less likely to have had a Pap test compared to the white, black and Hispanic populations in Harris County, and that Vietnamese and Chinese women were at highest risk of not having a Pap test for cervical cancer. However, the recent Health of Houston Survey showed similar percentages of Vietnamese, Chinese, and Asian Indian women who reported that they were following the recommended guidelines for a Pap test every three years, percentages similar to the white population. This may indicate that education about the importance of Pap tests has been effective in these Asian groups, and that some barriers to accessing healthcare have been reduced to increase use of the Pap test.

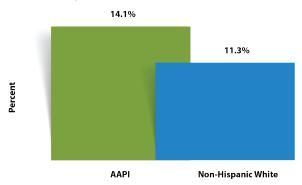
# **DIABETES**

Nationwide, as many as 1 in 4 people who have diabetes don't know they have it. But for Asian Americans, that number is much higher, 1 out of 2, the highest of all ethnic/racial groups.<sup>43</sup> In Houston/ Harris County, the percentage of AAPI who have been diagnosed with diabetes by a health professional is higher than the percentage of whites.

Diabetes is more common among those who are overweight or obese, and, as has been noted, AAPI are less likely to be obese than whites. However, a 2019 study by Yeyi Zhu and colleagues analyzed data from 4.9 million US individuals aged 20 and older from three US health systems, and found that AAPI are at higher risk for developing diabetes compared to whites, even though whites have higher rates of obesity.<sup>44</sup> In addition, AAPI are at higher risk of developing diabetes, even when they are of normal weight, compared to whites. The risk is especially high for Native Hawaiian/Pacific Islanders. 45

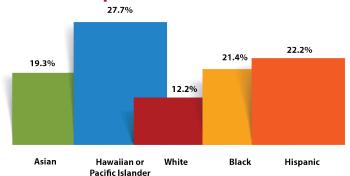
# **Have Been Told by a Health Professional that They Have Diabetes**

Harris County TX 2015-2017



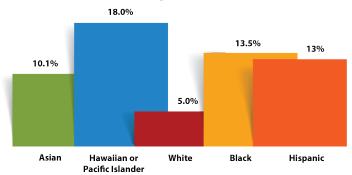
Data Source: Texas BRFSS Survey

# **Overall Diabetes Prevalence in Racial/ Ethnic Groups in the US 2012-20**



Data Source: Zhu, et al.46

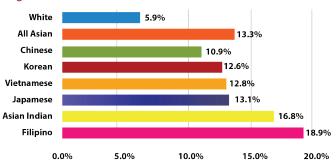
# **Diabetes Prevalence in Normal Weight** Racial/Ethnic Groups in the US 2012-2013



Data Source: Zhu, et al.47

# **Women: Percentage with Diabetes Among Asian Subgroup Populations** 2011

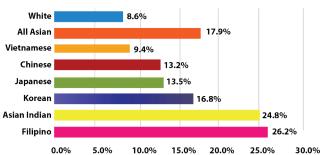
Age and BMI standardized



Data Source: Wang EJ et al.49

# **Men: Percentage with Diabetes Among Asian Subgroup Populations 2011**

Age and BMI standardized



Zhu goes on to note that the underlying mechanisms that cause Asians and Native Hawaiians/Pacific Islanders to have higher rates of diabetes at normal weights remains unknown. However, one factor may be that compared with other racial/ethnic groups, Asians have higher percentages of body fat and visceral fat (fat stored deeply within the abdominal cavity or belly), which in turn have been linked to insulin resistance and an increased risk of diabetes.

Marked differences are also apparent between Asian subgroups. Researchers at the Palo Alto Medical Foundation Research Institute and colleagues evaluated diabetes cases among a study group of 21,816 Asians and 73,728 non-Hispanic whites in the adult population aged 35+ years, and found that diabetes rates among Asian subgroups varied a great deal, with lowest percentages among Chinese (10.9%) for women and Vietnamese (9.4%) for men. The highest percentages were Filipino among both women (18.9%) and men (26.2%). Diabetes percentages in all Asian subgroups were higher than the white population.<sup>48</sup>



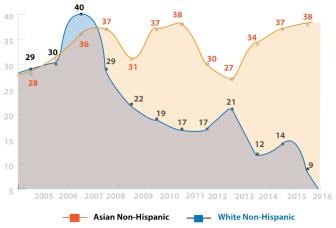
# **TUBERCULOSIS**

The Centers for Disease Control and Prevention (CDC) reported a total of 9,025 tuberculosis (TB) cases in the US in 2018. Among these, Asians continue have a higher rate compared to other racial and ethnic groups. In 2018, TB disease was reported in 3,190 Asians in the United States, accounting for nearly 35% of all people reported with TB nationally. The rate for Asians in 2018 was 31 times higher than in non-Hispanic whites. The CDC report notes that higher rates of TB are seen among those who were born in a country with a high rate of TB or who travel to a country with a high rate of TB.51

Tuberculosis is a significant health concern for AAPI in Houston. The annual TB case rate per 100,000 population is more than twice as high among AAPI compared to the rate in Houston.

# **TB Cases by Race/Ethnicity by Year**

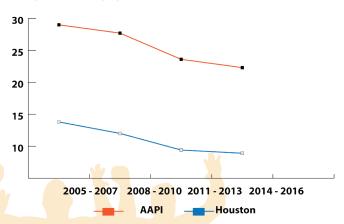
Houston TX 2005-2016



Data Source: Houston Health Department, Bureau of TB Control

#### **Annual Houston TB Case Rate 2005-2016**

Rate per 100,000 population



Data Source: Houston Health Department, Bureau of TB Control



# **MENTAL HEALTH**

# MENTAL HEALTH



Overall, the mental health needs of the AAPI population are poorly understood. As with all immigrants, AAPI face challenges to assimilation such as adaptation to a new culture; lack of English proficiency; and missing family, friends, and the home left behind. Later generations may feel guilty about sharing their mental health struggles, fearing they may seem insignificant when compared with their parents' and grandparents' hardships. Factors contributing to AAPI mental health disorders include the stress of adapting to American culture, unrealistically high expectations for academic and career success, intergenerational conflict and the cultural value of self-control.52

The US Office of Minority Health posted these statistics:

- Suicide was the leading cause of death for Asian Americans, ages 15 to 24, in 2017.
- Asian American females, in grades 9-12, were 20 percent more likely to attempt suicide as compared to non-Hispanic white female students, in 2017.
- Southeast Asian refugees are at risk for post-traumatic stress disorder (PTSD) associated with trauma experienced before and after immigration to the U.S. One study found that 70% of Southeast Asian refugees receiving mental health care were diagnosed with PTSD.
- The overall suicide rate for Asians Americans is half that of the non-Hispanic white population.<sup>53</sup>

Asian Americans have been shown to be less likely than other groups to access mental health services. Results from the SAMHSA National Survey on Drug Use and Health found that use of mental health care was highest in the past year for adults<sup>54</sup> reporting two or more races (17.1%), white adults (16.6%), and American Indian or Alaska Native adults (15.6%), followed by black (8.6%), Hispanic (7.3%), and Asian (4.9%) adults.<sup>54</sup> Asian Americans may underutilize mental health services because of stigma associated with mental illness and seeking treatment for it, lack of culturally and linguistically appropriate services, and economic barriers.<sup>55</sup>



# **Percentage with Mental Health Needs**

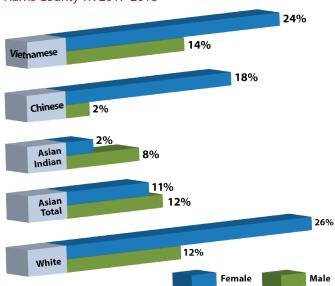
Harris County TX 2017-2018 23.0% 19.1% 13.1% 10.9% 5.0% 1.1% Other East Other South Other Asian Vietnamese Chinese Asian Indian

Data Source: Health of Houston Survey 2017-2018<sup>57</sup>

In Houston/Harris County, the Health of Houston Survey evaluated the presence of common mental health symptoms related to depression and anxiety. The data for the charts to the left are taken from the Health of Houston Survey information. The survey found that mental health symptoms and needs were highest among the Vietnamese compared to other Asian groups.56

# **Percentage with Mental Health Needs** by Gender and Race

Harris County TX 2017-2018



Data Source: Health of Houston Survey 2017-2018

Vietnamese and Chinese women were the groups most likely to report mental health concerns, while Asian Indian women and Chinese men were least likely to report symptoms. White women, however, most frequently reported mental health needs.

# **MENTAL HEALTH**

Also, in general, those who were uninsured or had public insurance were more likely to report mental health needs than those with private insurance.

# Percentage with Mental Health Needs by Insurance Status and Race

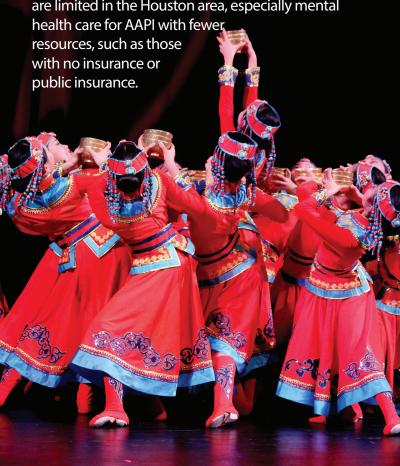
Harris County TX 2017-2018

Insurance Status	Vietnamese	Chinese	Asian Indian	Other Asian
Not Insured	23.0	0	5.1	25.8
Private Insurance	11.0	11.7	2.7	9.9
Public Insurance	37.4	23.1	0	10.3

Data Source: Health of Houston Survey 2017-2018

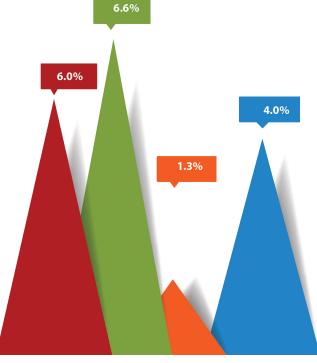
The Survey also asked whether participants had seen a professional for mental health concerns in the past 12 months. Higher proportions of Vietnamese living in Harris County reported that they had seen a doctor for mental health issues compared to other AAPI groups.

To be effective, mental health services must incorporate the unique cultural and linguistic needs of the rapidly growing AAPI community. Unfortunately, such services are limited in the Houston area, especially mental



# Had Seen a Professional for Mental Health Concerns

Harris County TX 2017-2018



Data Source: Health of Houston Survey 2017-2018



# **MATERNAL AND INFANT HEALTH**

# MATERNAL AND INFANT HEALTH



The health of mothers and infants is of critical importance, both as a reflection of the current health status and quality of life of a large segment of the US population and as a predictor of the health of the next generation. Many factors can influence the health of mothers and infants, such as the physical health of the mother before she becomes pregnant, the mother's nutrition during pregnancy, the education levels of the parents, family income, access to prenatal care, and breastfeeding.58

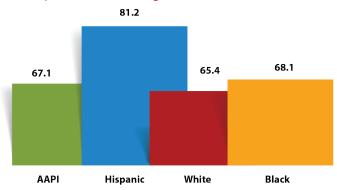
AAPI mothers and infants are healthy by many measures, compared to Houston and Harris County averages.

AAPI women aged 15-44 years have similar rates of birth per 1,000 women, compared to the white and black populations in Harris County.

Births that are preterm, also known as premature, are births that take place at fewer than 37 weeks gestational age, as opposed to full term of 37-41 weeks. Low birthweight refers to babies who weigh less than 2,500 grams (5 pounds, 8 ounces) at birth. Both conditions can pose risks for the newborn. These often occur together, as infants born prematurely are frequently low birthweight as well.<sup>60</sup> Infants born to AAPI mothers are less likely to be preterm compared to whites, but more likely to be low birthweight.

# **Birth Rates by Race/Ethnicity** Harris County TX 2014-2016

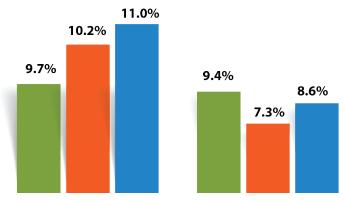
Births per 1,000 Women Aged 15-44



Data Source: March of Dimes PeriStats website59

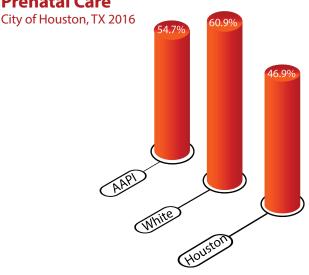
# **Pre-Term and Low Birthweight Infants, Harris County TX** (Preterm 2015-2017 Average; Low **Birthweight 2014-2016 Average)**

Percentage of Live Births



Data Source: March of Dimes PeriStats website

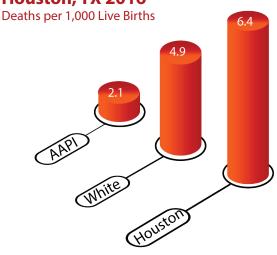
### **Percentage that Received Early Prenatal Care**



Data Source: Texas Department of State Health Services, Vital Statistics<sup>61</sup>

Prenatal care is an important part of maintaining health during pregnancy. During prenatal visits, healthcare professionals monitor the development of the infant and do routine testing to help find and prevent possible problems. Recommended prenatal care starts early in the pregnancy, in the first trimester. AAPI mothers were more likely to enter early prenatal care compared to the city of Houston average, but less likely compared to white mothers in 2016.

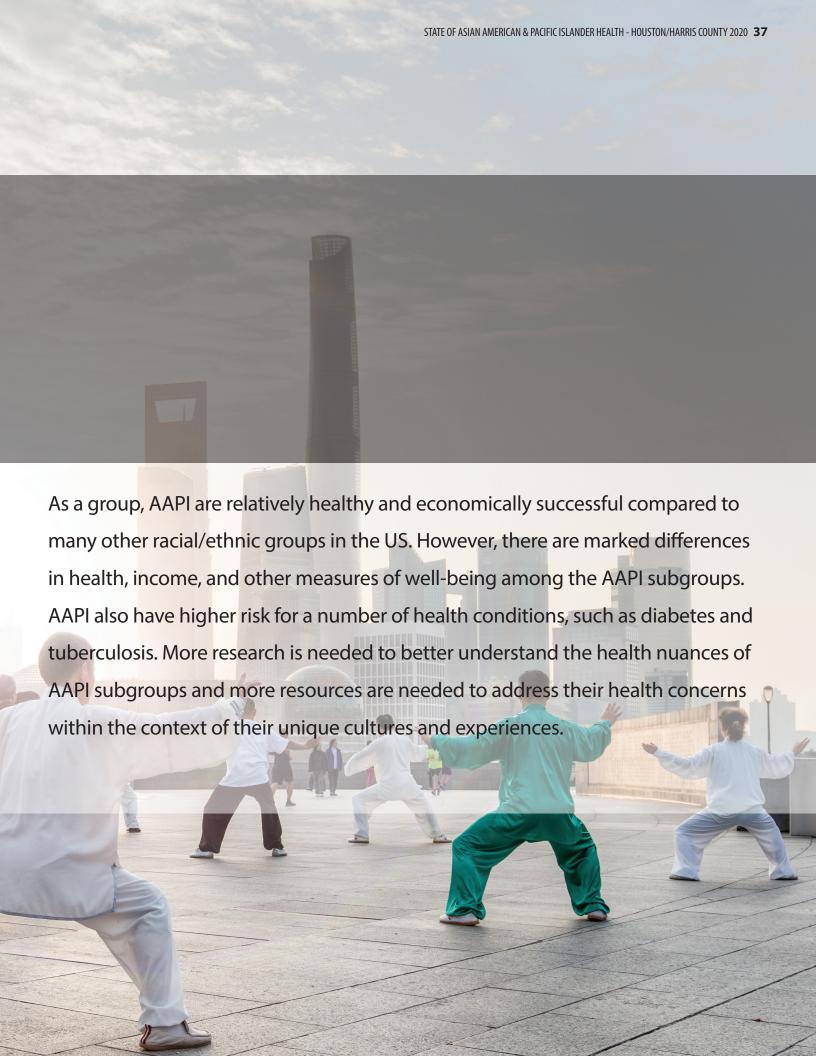
# **Infant Mortality Rate, City of** Houston, TX 2016



Data Source: Texas Department of State Health Services, Vital Statistics

Infant mortality refers to an infant that is born alive but dies within the first year of life. The top causes of infant death include birth defects, preterm birth and low birth weight, maternal pregnancy complications, sudden infant death syndrome, and injuries such as suffocation.<sup>62</sup> AAPI had a much lower rate (2.1) of infant mortality, less than half of that of whites (4.9) and less than a third compared to the city of Houston average rate (6.4) in 2016.





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