Community Health Needs Assessment

Adventist HealthCare Rehabilitation 2020 – 2022

Approved by Adventist HealthCare Board of Trustees in October 2019

Adventist HealthCare
Rehabilitation

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Section I: Introduction

Letter from the President & CEO

Thank you for the opportunity to present the Adventist HealthCare 2020-2022 Community Health Needs Assessment (CHNA) report and findings. The assessment, which is done every three years, helps our organization identify the needs of our patients and local community members, and address those needs through collaborative partnerships and healthcare service offerings.

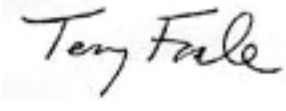
Adventist HealthCare is an integrated healthcare delivery network including four nationally accredited acute-care and specialty hospitals, behavioral health services, home health agencies, urgent care centers, primary care offices and imaging centers. Our role is to not only deliver high-quality care, but to contribute to societal well-being and equitable care throughout the Washington, D.C., metropolitan area.

For example, we will continue to focus on areas such as chronic disease prevention and management, behavioral health and maternal and child health. We will also look at the social determinants of health, such as homelessness and food insecurity.

Societal well-being is an important part of our Mission to extend God's care to the community we serve. Our community includes individuals and families who have access to resources like housing, transportation, education, employment and health care, which are important factors leading to good health and well-being. However, there are those in our community who face social and economic challenges—racial and social injustice, economic inequality, and lack of access to resources and services—that affect their quality of life and health outcomes. Paying attention to factors that affect health is imperative to improve care experience, improve quality, reduce costs and advance health equity for all.

Our Mission and values of respect and integrity call us to recognize the infinite worth of each individual and to be conscientious and trustworthy in everything we do. We demonstrate our commitment to equity and inclusion by acting with integrity, holding ourselves to the highest standards, and ensuring that everyone is treated respectfully and receives equitable healthcare.

I invite you to read more about the work we have done and our continued focus on delivering high-quality and compassionate care to the communities we serve.



Terry Forde
President & CEO

Adventist HealthCare Rehabilitation Overview

Adventist HealthCare Rehabilitation

Adventist HealthCare Rehabilitation, which opened in January 2001, is the first and only acute rehabilitation hospital in Montgomery County, Maryland. Adventist HealthCare Rehabilitation offers comprehensive rehabilitation programs for brain injuries, spinal cord injuries, stroke, amputation, orthopedic injuries and surgeries, sports-related injuries, work-related injuries and neurological disorders.

Adventist HealthCare Rehabilitation has two hospital locations: a free-standing 55-bed hospital in Rockville, Maryland, and a 42-bed hospital located in Takoma Park, Maryland. Adventist HealthCare Rehabilitation also provides outpatient rehabilitation services at our hospital location in Rockville and our community-based centers in Silver Spring, Maryland and Gaithersburg, Maryland.

Adventist HealthCare Rehabilitation is accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF) for all four of its specialty programs including stroke, spinal cord injury, brain injury and amputee. Adventist HealthCare Rehabilitation was one of the first acute rehabilitation facilities in the nation to earn specialty accreditation for its amputee program.

Inpatient & Outpatient Rehabilitation Services

Specialized inpatient treatment programs are available for persons with functional limitations who are 18 years of age or older, and under special circumstances, emancipated minors.

Our acute inpatient rehabilitation programs are run by a team of rehabilitation experts who guide patients along a practical and personalized treatment program focused on increasing self-reliance and gaining independence. The team is led by a physiatrist, a medical doctor who specializes in physical medicine and rehabilitation. Specialized rehabilitation nursing is available twenty-four hours a day, seven days a week with services including the spinal cord injury program, amputee program, stroke program, brain injury program, general rehabilitation program (orthopedic, cardiac, and multi-trauma diagnoses), and prosthetics and orthotics.

Adventist HealthCare Rehabilitation's outpatient facilities are responsible for treating a variety of diagnoses and conditions for patients with physical challenges. These departments act not only as a continuation of our inpatient setting but also have a focus on new patients. In our outpatient setting, we concentrate on patients who come to us for rehabilitation services related, but not limited to, surgical recovery, immobility and strength deficiencies.

Similar to our inpatient facilities, our outpatient facilities treat patients who are 18 years of age or older. The outpatient rehabilitation services offered at our facilities include the Neuro Rehab and Balance Center, driver evaluation and rehabilitation program, lymphedema therapy, joint replacement program, seating and mobility clinic, sports medicine and Lee Silverman Voice Treatment (LSVT) speech language and swallowing therapy.

Accreditation

Adventist HealthCare Rehabilitation is accredited by the Joint Commission and CARF. The Joint Commission evaluates the quality and safety of care for more than 15,000 health care organizations. In order to earn and maintain accreditation, an extensive on-site review by a team of health care professionals from the Joint Commission is conducted once every three years. The purpose of this review is to evaluate performance in areas that affect patient care. We are proud to announce that Adventist HealthCare Rehabilitation was successfully reviewed by the Joint Commission and received accreditation for an additional three years.

Programs and services that have been accredited by CARF have demonstrated that they largely meet internationally recognized standards. Having earned a CARF accreditation, patients can be confident that Adventist HealthCare Rehabilitation has made a commitment to continuously enhance the quality of our programs and services.

Executive Summary

With increasing racial and ethnic diversity of residents in the greater Washington D.C. metropolitan area (including Montgomery and Prince George's counties), addressing the needs of a diverse community is an integral part of fulfilling Adventist HealthCare's mission. The Adventist HealthCare Population Health strategy aims to improve the patient experience of care, reduce the total cost of care, and advance health equity by coordinating health care and services for communities we serve. Disadvantaged populations--such as those experiencing poverty or homelessness, people of color, women, and others who have persistently experienced social disadvantage or discrimination--systematically experience worse health outcomes or greater health risks than more advantaged social groups (Braveman, 2006). Infant mortality is more than two times higher for Black women than for white women. Breast and prostate cancer mortality are higher for women and men of color, respectively. These disparities in health outcomes, which are widely proven to be avoidable and unjust, are very well documented.

Like many hospitals and healthcare systems across the nation, Adventist HealthCare works to bring the best quality of care and access to care to the populations we serve. However, our organization recognizes the importance of addressing the environment (housing and transportation, for example), health behaviors (nutrition, exercise, tobacco use) and socioeconomic factors (education, employment, income, support and safety systems) that affect health. The University of Wisconsin Population Health Institute Model

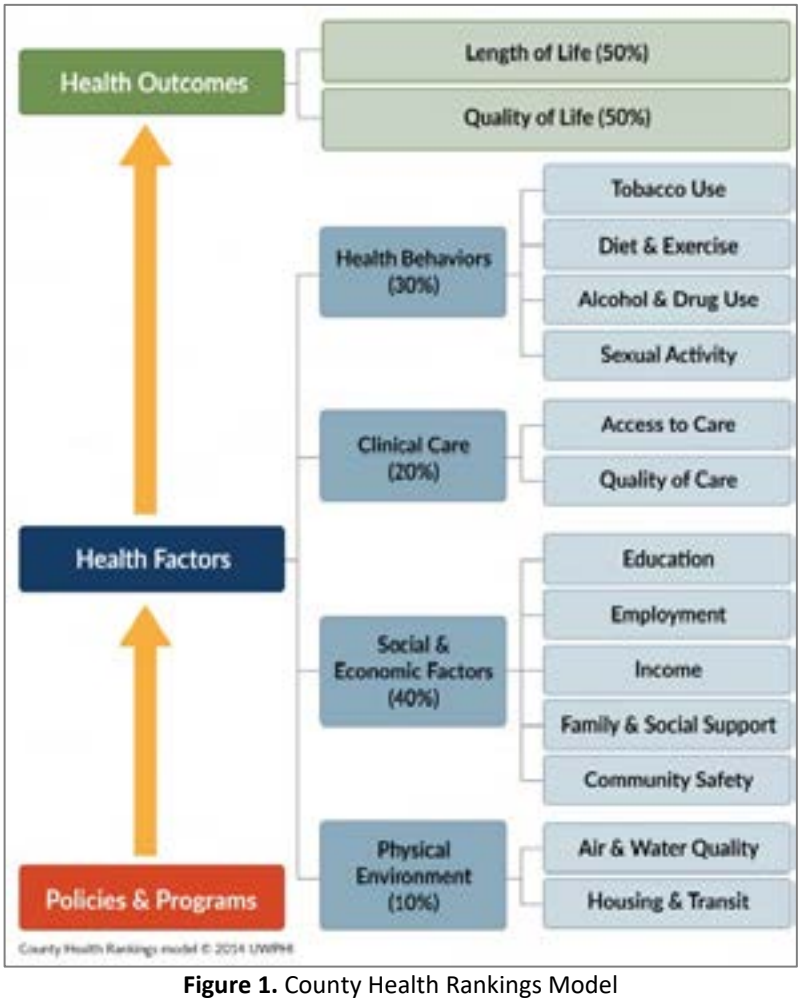


Figure 1. County Health Rankings Model
(Source: University of Wisconsin Population Health Institute)

(Figure 1) indicates that these factors contribute significantly to health outcomes (80%) such as one's quality of life and life expectancy. While hospitals have significant control over clinical care (20%), using a collaborative approach to address a broader set of community needs is required to ensure that everyone has a fair and just opportunity to achieve the best health possible (the definition of health equity). Through a comprehensive needs assessment, Adventist HealthCare has collected information about population demographics, existing community assets, and gaps in resources to share with patients and community members, community partners, and staff and leaders. Together with our partners, we share responsibility for improving the health of the community and exploring new ways to deliver patient-centered and equitable care.

The 2020-2022 Adventist HealthCare Community Health Needs Assessment (CHNA) reports include information about community-identified needs in areas where Adventist HealthCare offers health care and related services to our community. Each hospital has a report that summarizes information about the health status and health needs of residents in their particular service area (primarily in Montgomery and Prince George's Counties) using reliable and public data sources as well as input from community members, leaders, and organizations. Key representatives of the community are included in the input: diverse county residents; partners in public health, public safety, housing, and education; and communities with limited access to care, programs, and resources such as people with disabilities or those experiencing poverty, hunger, or homelessness. The comprehensive information in this report helps our organization learn about community-based organizations and local assets, resource gaps, racial inequities, and health and healthcare needs that our community deems important. Our goal is to use this information to focus our healthcare strategy on population-based care, programs, and services that promote healthy communities over the next three years.

There has been a myriad of evidence showing that disparities exist in quality of care, access to care, clinical conditions, and health outcomes. Factors such as race and ethnicity, sex and gender identity, housing conditions, access to healthy food, and others can influence health and access to healthcare. Many respondents to our primary survey noted a lack of trust in and bias among healthcare providers, and they expressed the desire for culturally sensitive health care. The section titled **"Our Community"** describes the changing demographics of diverse populations residing in specific zip codes in our community service area. Besides race, ethnicity, and age, the section includes information about the educational attainment, household income, poverty level, insurance coverage, and access to care of residents, particularly highlighting those who face barriers to equitable healthcare.

The **Methodology** section describes the data collection and analysis approaches used to assess health, social, and other community needs. The section also describes how we gathered input from community members and leaders through community conversations, key informant interviews, and an online survey. In addition, we include a description of the process for prioritizing and selecting areas of focus for strategic community health improvement planning and implementation.

In the **Findings** section, the report describes two system-wide priority areas of focus identified from the assessment: (1) increasing access to care and (2) addressing social determinants of health. For each hospital-specific report, the themes that came up most often were related to chronic disease prevention and management, maternal and child health, behavioral health, and social determinants of health such as homelessness and food insecurity. The section includes the findings from the various data collection methods and presents detailed information by chronic or infectious disease, overall health and wellness (e.g., maternal and child health, behavioral health), and topics related to societal well-being (e.g., education, food access, housing, and transportation).

Finally, the section on **Evaluation** shares the programs and outcomes of the 2017-2019 CHNA implementation strategy, including changes over time (improving, worsening, or staying the same) and disparities among different populations. This final summary of the last three-year cycle provides background on the activities to address concussion education and care for high school athletes.

Section II: Our Community

The Community We Serve

Introduction – Our Community

Adventist HealthCare Rehabilitation Hospital primarily services residents of Montgomery and Prince George's Counties in Maryland.

Approximately 85.0 percent of discharges come from our Total Service Area, which is considered Adventist HealthCare Rehabilitation Hospital's Community Benefit Service Area (CBSA). Within that area, 60.0 percent of discharges account for the Primary Service Area and include the following zip codes/cities:

20906 – Silver Spring, 20878 – Gaithersburg, 20850 – Rockville, 20854 – Potomac, 20874 – Germantown, 20904 – Silver Spring, 20902 – Silver Spring, 20877 – Gaithersburg, 20852 – Rockville, 20817 – Bethesda, 20901 – Silver Spring, 20853 – Rockville, 20783 – Hyattsville, 20886 – Montgomery Village, 20910 – Silver Spring, 20912 – Takoma Park, 20782 – Hyattsville, 20855 – Derwood, 20832 – Olney, 20814 – Bethesda, 20879 – Gaithersburg, 20876 – Germantown, 20706 - Lanham.

The remaining 25.0 percent of discharges account for our Secondary Service Area (SSA) which includes the following zip codes/cities:

20903 – Silver Spring, 20705 – Beltsville, 20815 – Chevy Chase, 20871 – Clarksburg, 20872 – Damascus, 20895 – Kensington, 20851 – Rockville, 20740 – College Park, 20785 – Hyattsville, 20774 – Upper Marlboro, 20905 – Silver Spring, 21703 – Fredrick, 20882 – Gaithersburg, 20770 – Greenbelt, 20784 – Hyattsville, 20743 – Capitol Heights, 20837 – Poolesville, 21702 – Frederick, 21701 – Frederick, 20011 – Washington, 20707 – Laurel, 20841 – Boyds, 20781 – Hyattsville, 20747 – District Heights, 20721 – Bowie, 20748 – Temple Hills, 20737 – Riverdale, 20866 – Burtonsville, 21771 – Mount Airy, 20012 – Washington, 20019 – Washington, 20744 – Fort Washington, 20712 – Mount Rainier, 20816 – Bethesda, 20833 – Brookeville, 20772 – Upper Marlboro, 20723 – Laurel, 20708 – Laurel, 20020 – Washington, 20746 – Suitland.

The map below depicts our primary and secondary service areas for Adventist HealthCare Rehabilitation Hospital based on total discharges for years 2016 – 2018 (Figure 1).

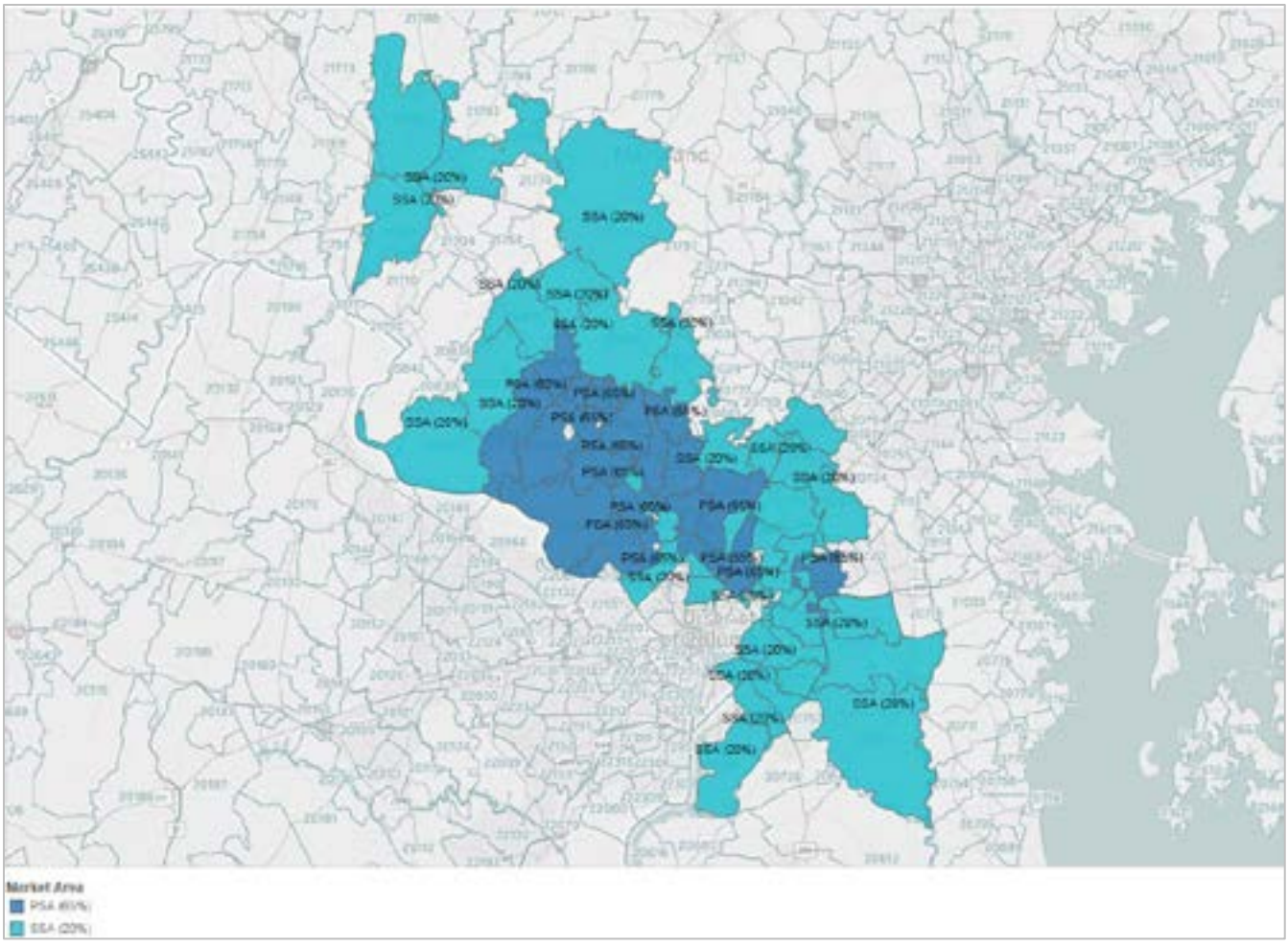


Figure 1. Map of Adventist HealthCare Rehabilitation Hospital's Primary and Secondary Service Areas

Adventist HealthCare Rehabilitation Hospital's CBSA, includes roughly 2,111,122 individuals (Figure 2). Of those individuals the majority are Black and White, each accounting for 38.9 percent of the population. Approximately a 17.7 percent of CBSA residents identify as Hispanic or Latino.

Adventist HealthCare Rehabilitation Community Benefit Service Area Demographics 2013 - 2017		
Demographics	**CBSA**	
*Total Population**		2,111,122
	Number (N)	Percent (%)
*Total Population by Gender**		
Male	1,015,033	48.1%
Female	1,096,089	51.9%
*Total Population by Race**		
Asian	197,076	9.3%
Black	822,650	38.9%
Native American or Alaskan Native	6,829	0.32%
Native Hawaiian/Pacific Islander	906	0.04%
White	821,406	38.9%
Some Other Race	191,336	9.1%
Multiple Races	70,919	3.4%
*Total Population by Ethnicity**		
Hispanic/Latino	373,235	17.7%
Male	193,749	51.9%
Female	179,486	48.1%
Not Hispanic or Latino	1,737,887	82.3%
*Hispanic Population by Race**		
Asian	1,343	0.49%
Black	14,635	1.5%
Native American/Alaskan Native	3,044	44.5%
Native Hawaiian/Pacific Islander	38	15.5%
White	154,810	17.5%
Some Other Race	182,725	68.6%
Multiple Races	16,640	22.5%
*Non-Hispanic Population by Race**		
Asian	195,733	11.3%
Black	808,015	46.5%
Native American or Alaskan Native	3,785	0.22%
Native Hawaiian/Pacific Islander	868	0.05%
White	666,596	38.4%
Some Other Race	8,611	0.5%
Multiple Races	54,279	3.1%
*Total Population by Age**		
0 – 4	141,970	6.7%
5 – 17	349,983	16.6%
18 – 24	184,343	8.7%
25 – 34	305,093	14.5%
35 – 44	288,970	13.7%
45 – 54	300,470	14.2%
55 – 64	266,674	12.6%
65+	273,619	13.0%

*Educational Attainment***		
Bachelor's Degree	646,853	45.08%
No schooling completed	164,727	11.48%
Notes: *Trinity Health Data Hub – Vital Statistics Report – Rehab CBSA **Buxton Data Software		

Figure 2. Adventist HealthCare Rehabilitation Hospital Community Benefit Service Area Demographics
(Source: Trinity Health Data Hub & Buxton Analytics Software, 2019)

Health Inequity

People of color, low-income individuals, and other disadvantaged populations disproportionately experience poor health outcomes.[1] The Centers for Disease Control and Prevention (CDC) reports that communities with predominantly minority groups continue to have lower socioeconomic status; these groups face greater barriers to health-care access, greater risks for disease, and greater burden of disease as compared to other populations.[2] For example, the infant mortality rate among African Americans is more than double that of Whites[3,4] and African American women regardless of their education and income level are three to four times more likely to die from preventable pregnancy-related complications than non-Hispanic White women.[5] Furthermore, there is evidence that racial/ethnic minority groups are less likely to receive needed medical procedures, more likely to receive less useful medical procedures, and experience an overall reduced quality of health care services.[6]

Due to the persistent health disparities that exist in the U.S., health care experts have called for efforts to address the root causes of health disparities, by addressing both the biological and social determinants of health as well as healthcare spending. Research shows that health disparities lead to unnecessary healthcare spending and that addressing the root causes of health disparities will help to reduce the cost of health care in this country. A national study found that eliminating health disparities for racial/ethnic minority groups would reduce medical care expenditures by about $230 million and indirect costs associated with illness and premature death by more than $1 trillion.[7] For health systems, reducing health disparities is not just the right thing to do; it can yield positive financial gains associated with improving quality of care and reducing health care costs for people who use health care services.

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[1] Edgoose, J., Davis, S., Atwell, K., Balajee, S. S, Bazemore, A., Bierman, A. S., and et.al. (2018). A guidebook to health equity curricular toolkit. Retrieved from https://www.aafp.org/dam/AAFP/documents/patient_care/everyone_project/health-equity-toolkit/hops19-he-guidebook.pdf

[2] CDC. (2019). Surveillance of health status in minority communities--Racial and ethnic approaches to community health across the U.S. (REACH U.S.). Risk Factor Surveillance Survey, United States, 2009. Retrieved from https://www.cdc.gov/nccdphp/dnpao/division-information/data-stats/index.htm

[3] Centers for Disease Control and Prevention. (2019). Infant mortality. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

[4] Penman-Aguilar, A., Bouye, K., Liburd, L., Office of Minority Health and Health Equity, and Office of the Director, CDC. (2016). Background and rationale. Retrieved from https://www.cdc.gov/mmwr/volumes/65/su/su6501a2.htm?s_cid=su6501a2_w

[5] Centers for Disease Control and Prevention. (2019). Pregnancy mortality surveillance system. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-mortality-surveillance-system.htm

[6] Institute of Medicine. (2003). Unequal treatment: Confronting racial and ethnic disparities in health care. National Academies Press.

[7] LaVeist, T. A., Gaskin, D., & Richard, P. (2011). Estimating the economic burden of racial health inequalities in the United States. *International Journal of Health Services, 41,* 231-238.

According to Robert Wood Johnson Foundation, health equity means that everyone has a fair and just opportunity to be as healthy as possible. Specifically: "This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care." This requires valuing everyone equally and working intentionally to combat the effects of bias and discrimination to eliminate health disparities. To the 2020-2022 CHNA survey question asking respondents the main reason why they thought they may have been treated unfairly when getting medical care, many noted bias among healthcare providers, and they expressed the desire for culturally sensitive health care.

Health inequities are differences in health outcomes that are systematic, avoidable, and unjust. In order to address health inequities, hospitals, physicians and other providers, and community partners must work collaboratively to identify and monitor community needs and barriers to accessing health care. The Institute for Healthcare Improvement (2016) suggests that organizations combine efforts to improve health equity with a plan to address multiple factors that affect health outcomes. In particular, they should find effective ways to care for the health of their communities in partnership with community organizations, and especially to eliminate barriers to accessing healthcare.

Demographics & Trends[8]

In Maryland, the population demographics are rapidly changing, particularly among residents living in Montgomery and Prince George's Counties (Figure 3). Adventist HealthCare serves two of the most diverse communities in the United States, constantly undergoing economic, social and demographic shifts that result from an ever-changing, ever-growing population (Figure 4).

Montgomery County is the most populous jurisdiction in Maryland and has retained its status as the second largest jurisdiction in the Washington, D.C. metropolitan area.[9] From 1990 to 2017, Montgomery County's population grew 38 percent, increasing from 765,476 to 1,058,810 people.[2] The greatest population growth occurred inside the Capital Beltway (Interstate 495), which also includes Prince George's County. According to the Maryland-National Capital Park and Planning Commission (MNCPPC), the growth in Montgomery County was driven largely by births to residents and increasing international migration. At 32.6 percent, Montgomery County has a foreign-born population twice that of the state of Maryland. Prince George's County is the second-largest jurisdiction in Maryland with nearly one million residents.[10] The county has seen significant population growth increasing by nearly 50,000 residents or 5.7 percent from 2010 to 2017.[11]

Both Montgomery & Prince George's Counties are majority-minority counties meaning they are made up of less than 50 percent non-Hispanic Whites (Figure 3). The majority of residents (62.0 percent) in Prince George's County are Black, followed by Hispanic or Latino (19.1 percent). The majority of residents (43.4 percent) in Montgomery County are non-Hispanic White, followed by Black and Hispanic (19.9 percent each), and Asian (15.6 percent). The racial and ethnic diversity in the county has continued to increase with the increase in the overall population (Figures 5 and 6).

Regarding life expectancy, Montgomery County at 84.3 years is higher than that of Maryland (79.2 years) and Prince George's County (79.6 years) (Figure 7). In both counties, the life expectancy is slightly higher for Whites compared to Blacks.

[8] U.S. Census Bureau. (2018). QuickFacts. Retrieved from https://www.census.gov/quickfacts/fact/table/MD,montgomerycountymaryland/PST045218

[9] The Maryland-National Capital Park and Planning Commission. (2019). Montgomery County Trends: A look at people, housing, and jobs since 1990. Retrieved from https://montgomeryplanning.org/wp-content/uploads/2019/01/MP_TrendsReport_final.pdf

[10] U.S. Census Bureau. (2015). Maryland at a glance: Population. Retrieved from http://msa.maryland.gov/msa/mdmanual/01glance/html/pop.html#county

[11] Prince George's County, Maryland Health Department, Office of Assessment and Planning (2019). 2019 Prince George's County Community Health Assessment. Retrieved from https://www.fortwashingtonmc.org/wp-content/uploads/2019/06/FINAL_-2019-Prince-Georges-CHNA.pdf

2018 Population Estimates by County			
	Maryland	Montgomery County	Prince George's County
Total Population	***6,042,718***	***1,052,567***	***909,308***
Population by Race and Ethnicity, %			
Asian	6.7%	15.6%	4.5%
Black/AA	30.9%	19.9%	64.4%
Hispanic/Latino	10.4%	19.9%	19.1%
Native HI/PI	0.1%	0.1%	0.2%
White	58.8%	60.2%	27.0%
White alone, Not Hispanic or Latino	50.5%	43.4%	12.5%
Population by Age, %			
Under 5 Years	6.0%	6.3%	6.5%
Under 18 Years	22.2%	23.2%	22.2%
65 Years and Older	15.4%	15.5%	13.3%
Median Household Income	$78,916	$103,178	$78,607
Population Characteristic			
Veterans, 2013 - 2017	380,555	43,481	57,387
Foreign-born persons, % 2013 – 2017	14.9%	32.6%	21.9%
Persons in Poverty, %	9.0%	6.9%	8.3%
Population by Educational Attainment, %			
Population 25+ with High School Diploma, %	89.8%	91.1%	86.1%
Population 25+ with bachelor's degree or Above, %	39.0%	58.3%	31.9%

Figure 3. 2018 Population Estimates by Race and Ethnicity in Maryland, Montgomery, and Prince George's Counties (Sources: U.S Census Bureau QuickFacts, 2018 & American Community Survey, 2017)

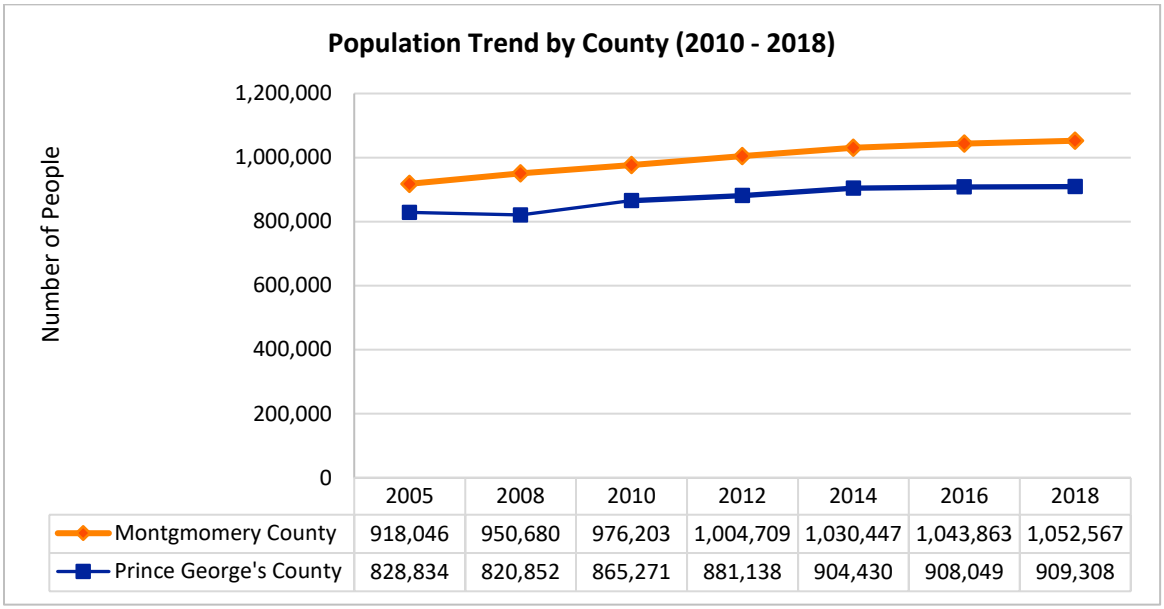


Figure 4. Population Trend by County 2010 – 2018
(Source: American Community Survey – Population Total 1 – year Estimates, Tables B01003 and DP05, 2018)

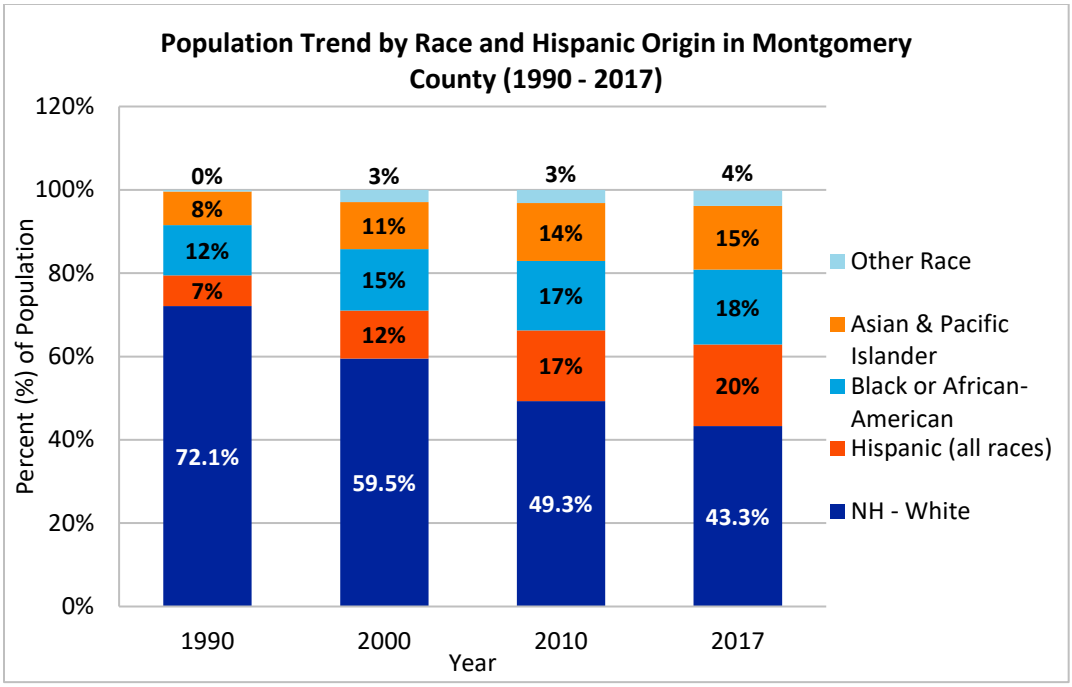


Figure 5. Population Trend by Race and Ethnicity in Montgomery County, 1990 – 2017
(Source: U.S. Census Bureau American Community Survey 1-year estimates, Table B03002 & MNCPPC Report, 2019)

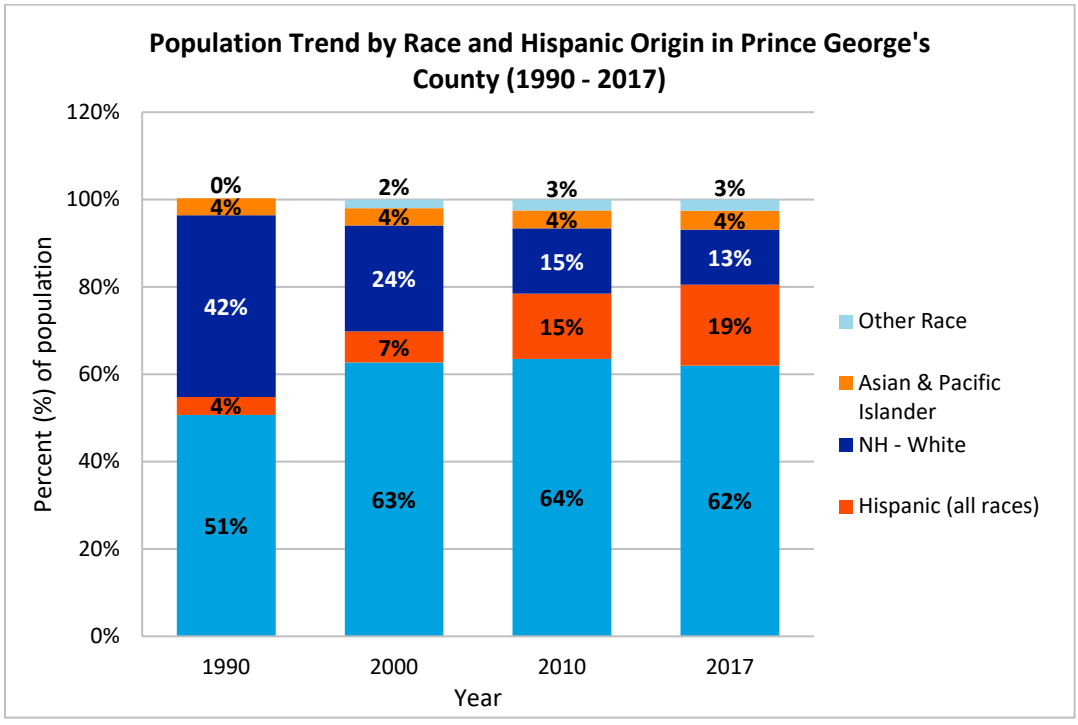


Figure 6. Population Trend by Race and Ethnicity in Prince George's County, 1990 – 2017
(Source: U.S. Census Summary Table DP-1, 2010; American Community Survey 1-year estimates, Table B03002, 2010 - 2017 & MD State Data Center Historical Census, 1990)

Life Expectancy by County			
	Maryland	Montgomery County	Prince George's County
Life Expectancy			
Overall	79.2	84.3	79.6
Race			
White	79.7	83.6	79.4
Black	76.9	82.0	78.4

Figure 7. Life Expectancy in Montgomery County and Prince George's County, Maryland
(Source: County Health Rankings & Roadmaps, 2015-2017)

Aging Population: Change Over Time, 1990 – 2016[12]

According to the Maryland-National Capital Park and Planning Commission (MNCPPC), there has been a noticeable population age shift in Montgomery County from 1990 to 2016, largely in part to the aging baby boomer generation born between 1946 and 1964 (Figure 8). From 1990-2016 the median age of residents in the county rose from 33.9 years to 39 years. Meanwhile, the percentage of young adults, 20 to 34 years, decreased by 7.7 percent and adults age 35 to 44 years decreased by 3.9 percent. Children under age 18 decreased marginally and are projected to remain steady.

According to data from the U.S. Census American Community Survey, there has also been a significant population age shift in Prince George's County from 1990 to 2016 (Figure 9). Similar to Montgomery County, the largest age group in 1990 was 20-34 years, compared to 45-64 years in 2016. The 35-44 age group has decreased 4.0 percent and children under age 18 decreased marginally and are projected to remain steady.

The fastest growing population, 65+, is projected to grow 7.0 percent in Montgomery and 9.0 percent in Prince Georges, reaching 21.0 percent of the population in both counties by the year 2040.

The aging of the population will have a significant impact on the health and wellbeing of the community. There will be a larger demand for services such as healthcare and a smaller workforce to meet the demand.

[12] Maryland-National Capital Park and Planning Commission (MNCPPC). (2019). Montgomery County Trends: A look at people, housing, and jobs since 1990. Retrieved from https://montgomeryplanning.org/wp-content/uploads/2019/01/MP_TrendsReport_final.pdf

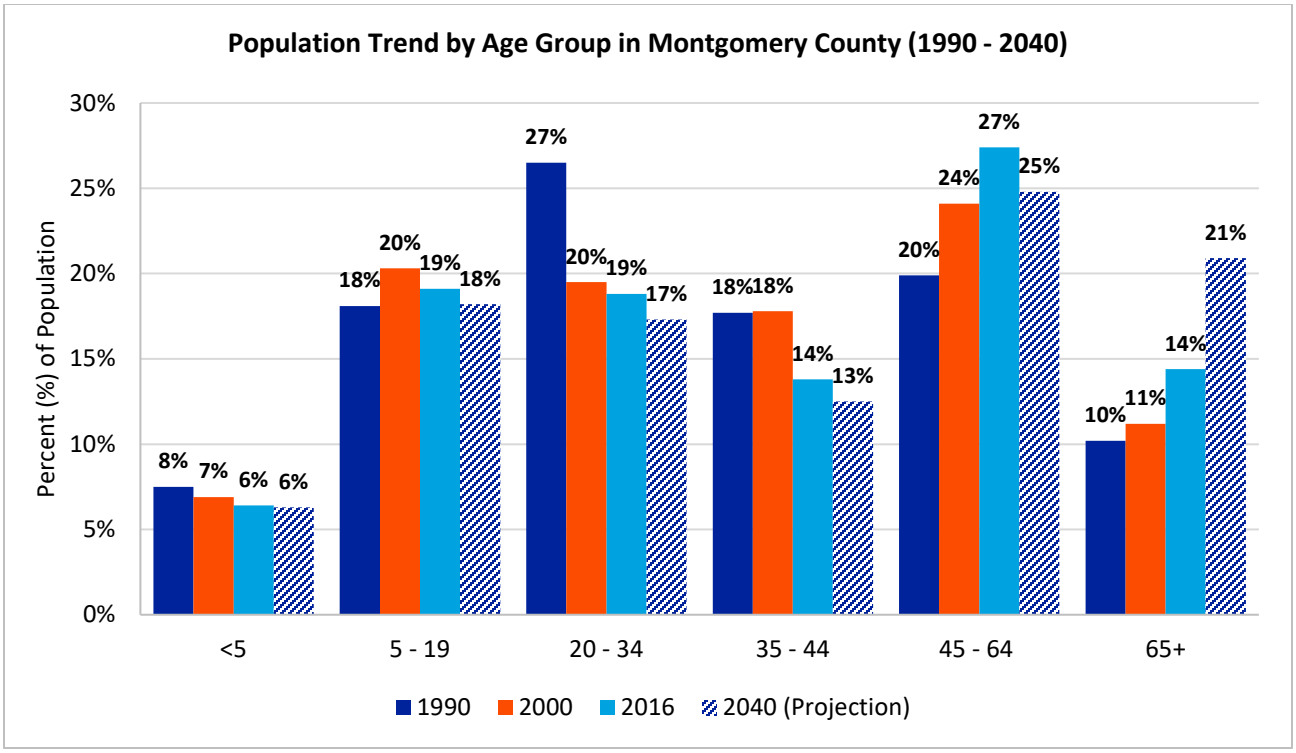


Figure 8. Percent of Population by Age Group in Montgomery County
(Source: U.S. Census American Community Survey 1-Year Estimates Table S0101, 2019)

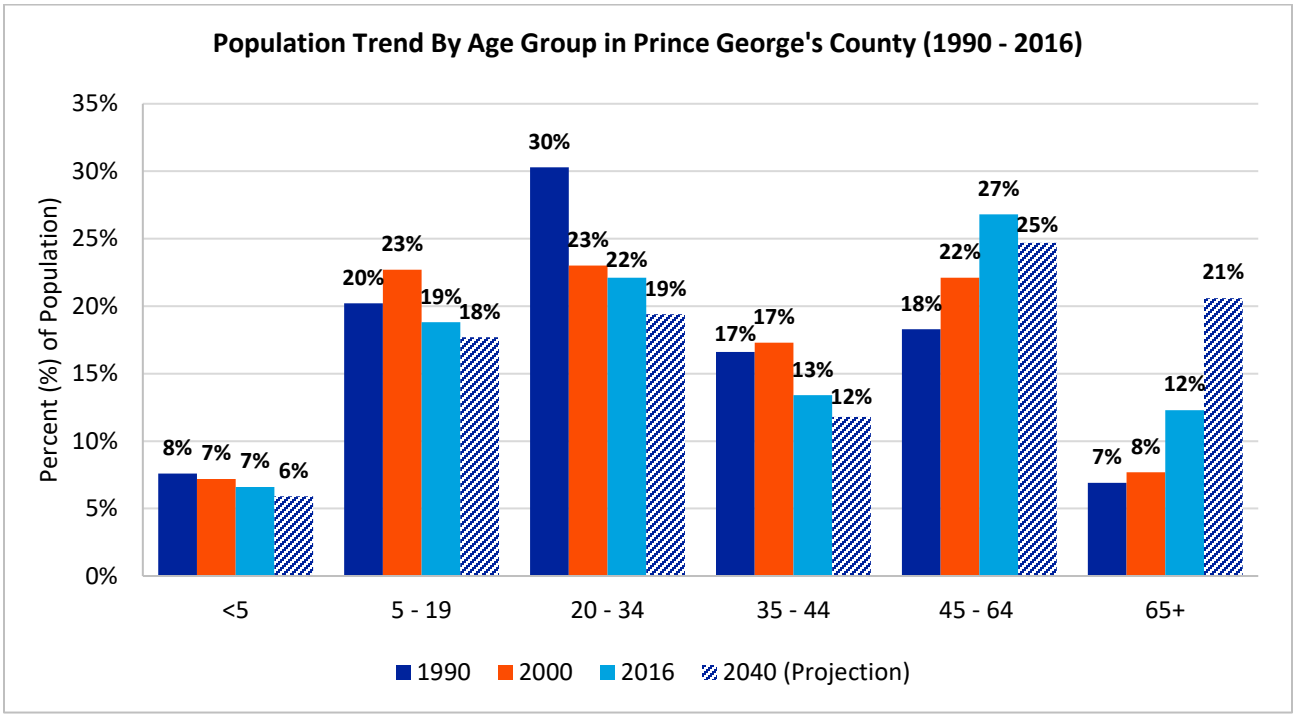


Figure 9. Percent of Population by Age Group in Prince George's County
(Source: U.S. Census American Community Survey 1-Year Estimates Table S0101, 2019)

Foreign-born Population[13]

According to the U.S. Census Bureau, Maryland is one of the top ten destinations for foreign-born individuals with a significant amount residing in Montgomery County.[14] A foreign-born individual is anyone who was not a U.S. citizen or a U.S. national at birth. From 1980 to 2016, the population of foreign-born individuals living in Montgomery County increased from 12.0 percent to 33.0 percent. The majority of foreign-born residents who live in Montgomery County come from both Asia and Latin America, with the top five countries consisting of El Salvador, China, India, Korea, and Ethiopia (Figure 10). Of those individuals who are foreign-born and living in Montgomery County, 15.4 percent primarily speak English, 30.8 percent speak Spanish, 22.4 percent speak an Asian or Pacific Islander language and 21.4 percent speak an Indo-European language (Figure 11).

In Prince George's County, one out of every five residents or 22.6 percent are born outside the United States.[15,16] In 2017 alone, there were over 200,000 foreign-born residents in the county. The top five countries that contribute the most to the foreign-born population include: El Salvador, Nigeria, Guatemala, Mexico, and Jamaica (Figure 12). Of the foreign-born residents living in Prince George's County, one in five or 21.5 percent speak English as their primary language and 44 percent speak Spanish (Figure 13).

In Adventist HealthCare Rehabilitation's CBSA, 12.4 percent of individuals aged 5+ are limited English proficient (Figure 14). The rate of limited English proficiency in Adventist Rehabilitation's CBSA is lower than that of Montgomery County, slightly higher than Prince George's County, and almost 2X that of Maryland.

Due to the diversity in language spoken and English proficiency levels in the community, it is crucial to provide interpreter and translation services to overcome language barriers for those accessing the healthcare, social service and education systems, among others.

[13] Maryland-National Capital Park and Planning Commission (MNCPPC). (2019). Montgomery County Trends: A look at people, housing, and jobs since 1990. Retrieved from https://montgomeryplanning.org/wp-content/uploads/2019/01/MP_TrendsReport_final.pdf
[18] U.S. Census Bureau. (2017). QuickFacts. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF
[15] Prince George's County Health Department – Office of Assessment and Planning. (2019). Community Health Assessment. Retrieved from https://www.fortwashingtonmc.org/wp-content/uploads/2019/06/FINAL_-2019-Prince-Georges-CHNA.pdf
[16] U.S. Census Bureau, 2017 American Community Survey 1-year estimates, Table S0501

Top 10 Countries of Birth among Foreign-born Residents in Montgomery County, Maryland		
Country of Origin	Population (N)	Percent (%) Foreign-Born
El Salvador	47,792	13.9%
China	28,243	8.2%
India	24,306	7.1%
Korea	15,185	4.4%
Ethiopia	15,139	4.4%
Vietnam	12,384	3.6%
Honduras	11,234	3.3%
Peru	10,229	3.0%
Iran	7,947	2.3%
Guatemala	7,564	2.2%

Figure 10. Top 10 Countries of Birth among Foreign-born Residents in Montgomery County, Maryland 2016
(Source: Maryland National Capital Park and Planning Commission – Montgomery County Trends Report, 2019)

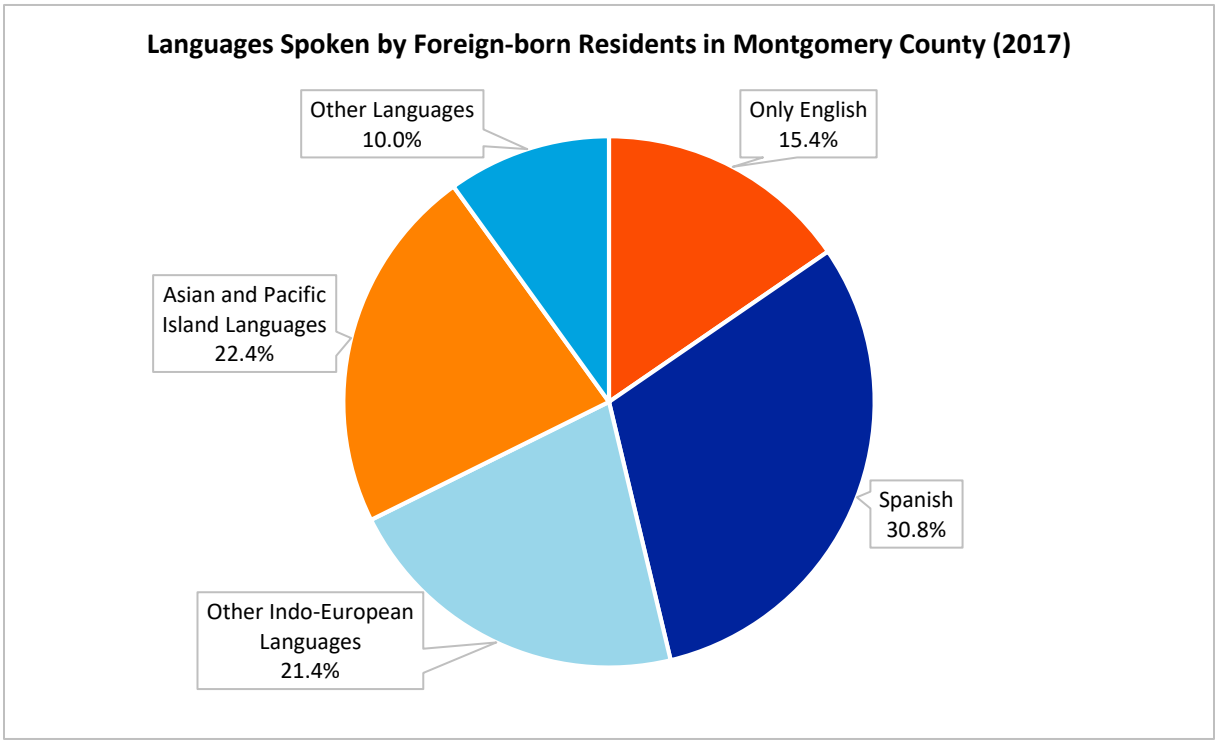


Figure 11. Languages Spoken by Foreign-born Residents in Montgomery County, 2017
(Source: U.S Census Bureau American Community Survey 1-year estimates, Table B06007 & C16005, 2017)

Top 10 Countries of Birth among Foreign-born Residents in Prince George's County, Maryland	
Country of Origin	Percent (%) Foreign-Born
El Salvador	22.0%
Nigeria	7.8%
Guatemala	7.3%
Mexico	6.1%
Jamaica	5.3%
Philippines	3.9%
Cameroon	3.5%
Honduras	3.4%
Sierra Leone	3.0%
India	2.5%

Figure 12. Top 10 Countries of Birth among Foreign-born Residents in Prince George's County, Maryland 2017
(Source: Prince George's County, MHD, Office of Assessment and Planning – Community Health Assessment, 2019 & American Community Survey 5-Year Estimates, Table B05006, 2013 – 2017)

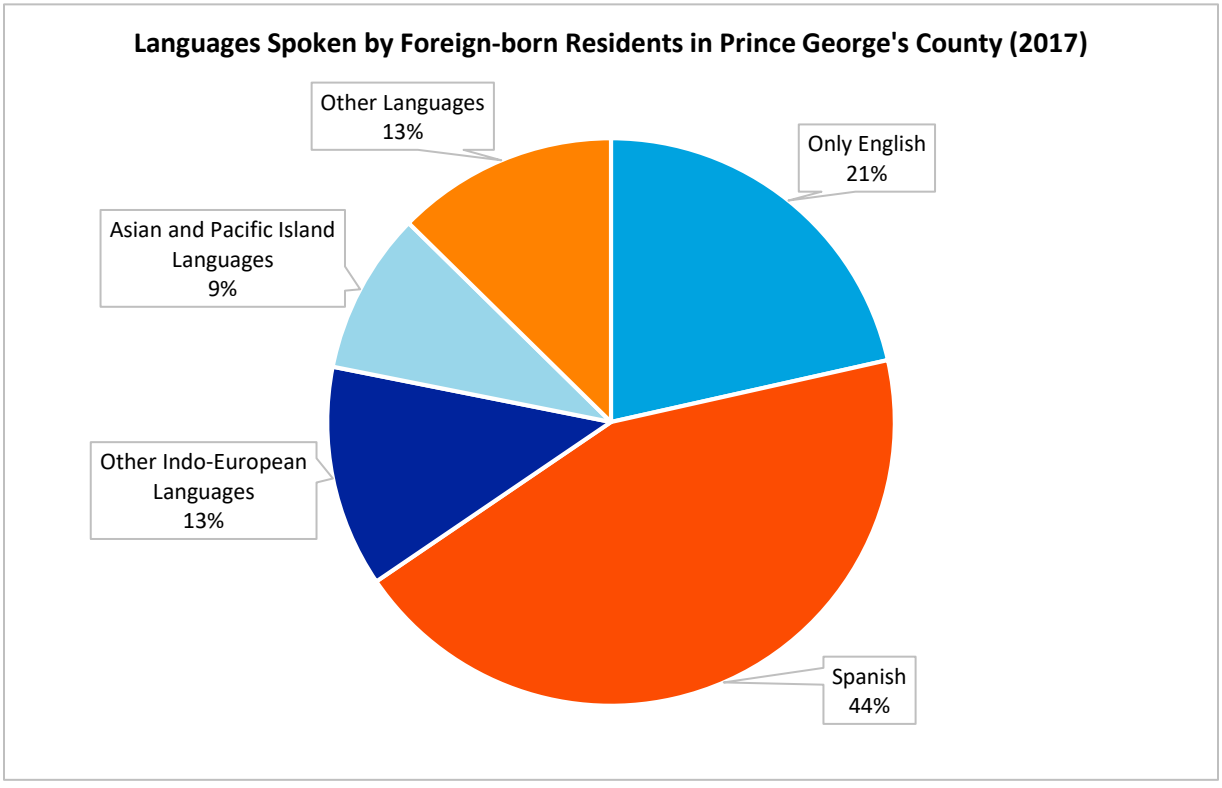


Figure 13. Languages Spoken by Foreign-born Residents in Prince George's County, 2017
(Source: U.S Census Bureau American Community Survey 1-year estimates, Table B06007 & C16005, 2017)

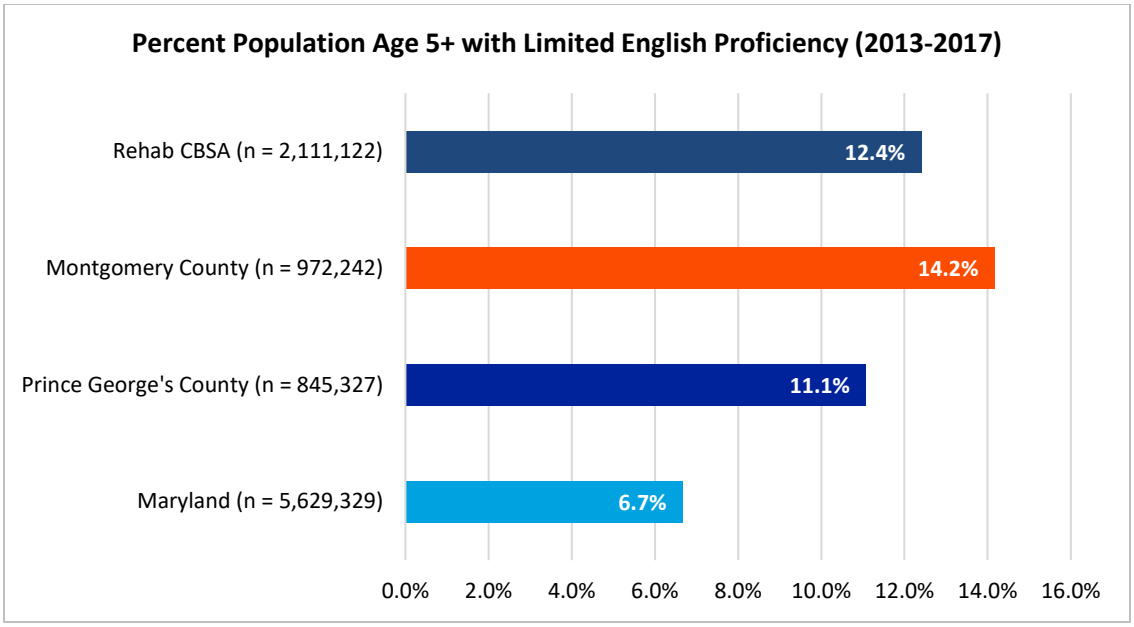


Figure 14. Percent of the Population Age 5+ with Limited English Proficiency, 2013 – 2017 (Source: U.S. Census Bureau American Community Survey 5-Year Estimates, 2013 – 2017)

As racial and ethnic minority populations become increasingly predominant, concerns regarding health disparities grow – persistent and well-documented data indicate that racial and ethnic minorities still fall behind nonminority populations in many health outcome measures. These groups are less likely to receive preventive care to stay healthy and are more likely to suffer from serious illnesses, such as cancer and heart disease.

Additionally, racial and ethnic minorities often have challenges accessing quality healthcare, either because they lack health insurance or the communities in which they live are underserved by health professionals. As the proportion of racial and ethnic minority residents continue to grow, it will become even more important for the healthcare system to understand the unique characteristics of these populations to meet the health needs of the overall community. As a result, this report examines health status and outcomes among different racial and ethnic populations in Montgomery and Prince George's Counties, with the goal of eliminating disparities, achieving health equity, and improving the health of all groups.

Area Deprivation Index

The Area Deprivation Index (ADI) uses data from the American Community Survey 5-Year Estimates (ACS) to represent a geographic area-based measure of the socioeconomic deprivation experienced by a census block group/neighborhood. The index includes factors of income, education, employment, and housing quality. The ADI is typically used to inform health delivery and policy, primarily for the most disadvantaged neighborhood groups. The index has a measurement scale of 1 (blue = least disadvantaged block group) to 10 (red = most disadvantaged block group).

When looking at the state of Maryland overall (Figure 15), there are variations of both least and most disadvantaged neighborhoods/census block groups. The WOMC CBSA (Figure 16), is similar to Maryland with some of the most disadvantaged neighborhoods/block groups adjacent to neighborhoods that are least disadvantaged. Examples of neighborhoods that rank anywhere between 7 to 10 on the ADI include: Paint Branch, White Oak, Fairview Estates, Northwest Park, Adelphi, Langley Park, and Briggs Chaney to name a few.

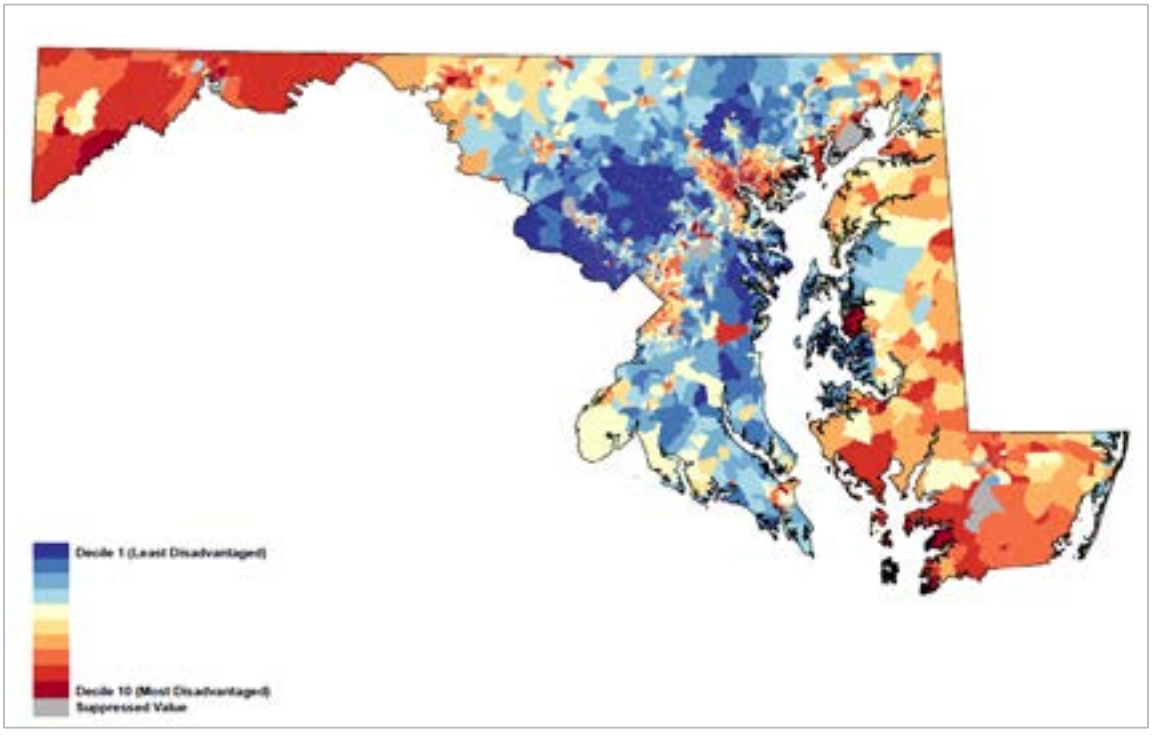


Figure 15. Maryland Area Deprivation Index (ADI) State Rankings, 2015
(Source: University of Wisconsin School of Medicine and Public Health – Department of Medicine, 2015)

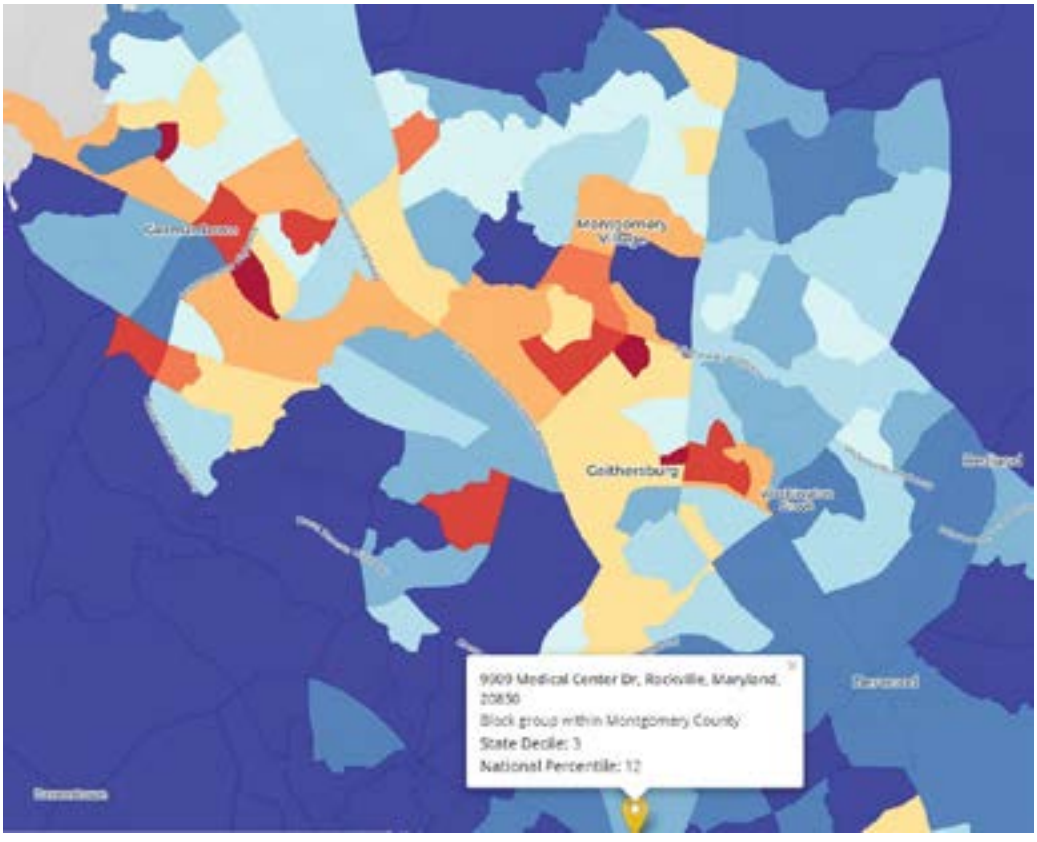


Figure 16. Area Deprivation Index – Map of Neighborhoods/Block Groups Near AHC Rehab
(Source: University of Wisconsin School of Medicine and Public Health – Department of Medicine, 2015)

County Health Rankings and Roadmaps (2019)[17]

The County Health Rankings Model (Figure 17) illustrates the wide range of factors that influence how long and well we live. Socioeconomic factors such as income, education, and employment can influence the way we make decisions about our health and access healthcare related services. Although some people have access to essential elements for healthy living, many people do not have the same opportunities and are significantly limited in access.

The County Health Rankings and Roadmaps (CHR&R) provide a snapshot of how health is influenced by more than just clinical care and the physical environment - health behaviors as well as social and economic factors have a much greater impact on health. The goal is to achieve the highest level of health for all and close the gap between those with the best and worst health outcomes. The CHR&R measures vital health factors which include high school graduation rates, obesity, smoking, unemployment, access to healthy foods, quality of air and water, income inequality, and teen births. The CHR&R also measures health outcomes which include both length and quality of life.

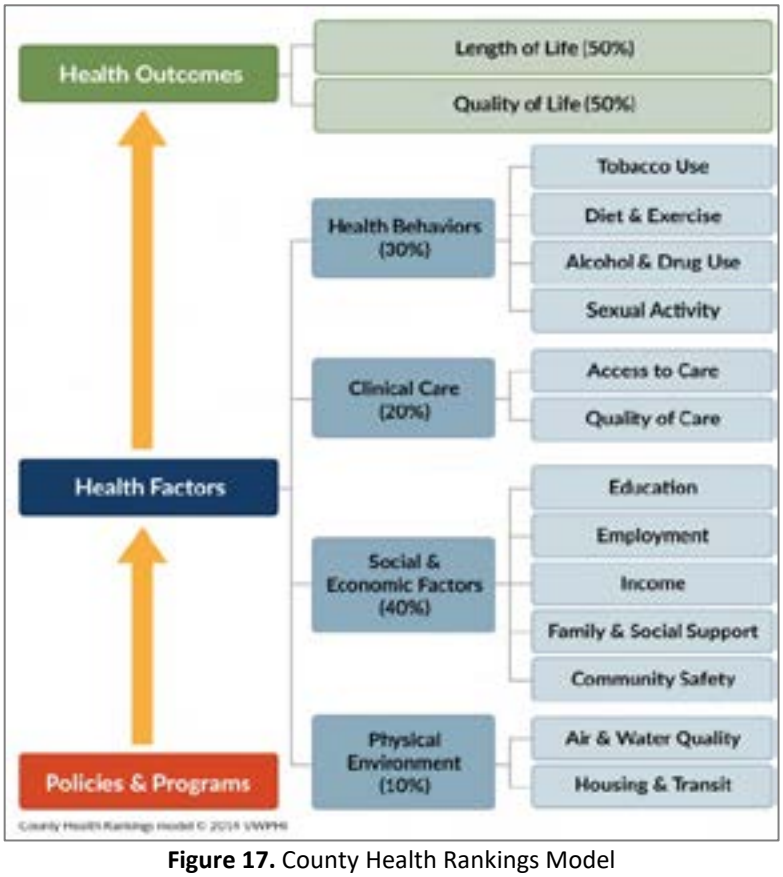


Figure 17. County Health Rankings Model
(Source: County Health Rankings and Roadmaps – Building a Culture of Health County by County, 2019)

The Ranking scale listed below (Figure 18), provides a snapshot of how Montgomery and Prince George's Counties compare to one another and the other 22 counties in Maryland. Based on the 2019 report, Montgomery County ranked number one for health outcomes overall and number two for health factors overall. In comparison, Prince George's County was ranked 11th for health outcomes overall and 16th for health factors overall.

[17] County Health Rankings & Roadmaps. (2019). About County Health Rankings and Roadmaps. Retrieved from https://www.countyhealthrankings.org/about-us

Maryland 2019 County Health Rankings			
Health Outcomes Overall		**Health Factors Overall**	
Rank	**County**	**Rank**	**County**
1	Montgomery	1	Howard
2	Howard	2	Montgomery
3	Fredrick	3	Carroll
4	Carroll	4	Fredrick
5	St. Mary's	5	Calvert
6	Calvert	6	Queen Anne's
7	Queen Anne's	7	Harford
8	Anne Arundel	8	Anne Arundel
9	Talbot	9	Talbot
10	Harford	10	Baltimore
11	Prince George's	11	St. Mary's
12	Charles	12	Charles
13	Baltimore	13	Garret
14	Kent	14	Kent
15	Garret	15	Washington
16	Worcester	16	Prince George's
17	Washington	17	Worcester
18	Cecil	18	Alleghany
19	Wicomico	19	Cecil
20	Alleghany	20	Wicomico
21	Caroline	21	Dorchester
22	Dorchester	22	Caroline
23	Somerset	23	Baltimore City
24	Baltimore City	24	Somerset

Figure 18. County Health Rankings in Maryland
(Source: County Health Rankings – Health Outcomes and Factors Overall, 2019)

Income and Poverty

The median household incomes in Montgomery and Prince George's Counties are $103,178 and $78,607, respectively.[18] Comparatively, the 2017 median household income in Maryland is $78,916, which is higher than the U.S. median of $57,652. When broken down by race and ethnicity, significant income disparities exist. In Montgomery County, the median income of White and Asian households is over $30,000 higher than that of Black and Hispanic households (Figure 19). In Prince George's County, Asian and White households have the largest Median household income, followed by Black households and Hispanic households who have the largest income inequality.

Household income has a direct influence on a family's ability to pay for necessities, including health insurance and healthcare services.

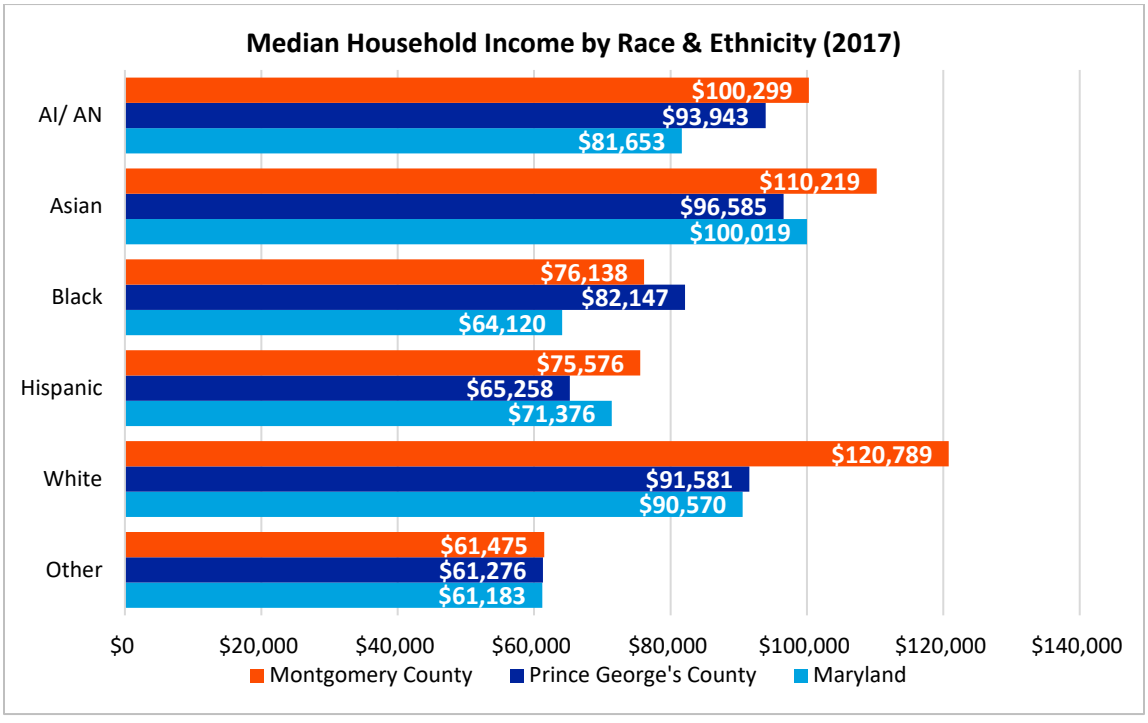


Figure 19. Median Household Income by Race and Ethnicity in Montgomery County, Prince George's County, and Maryland, 2017
(Source: United States Census Fact Finder, 2017)

Among the zip codes located in Rehab's CBSA, the majority are below the county averages for median household income (indicated in red in Figure 20).

[18] U.S. Census Bureau. (2017). Median household income in the past 12 months: 2017 American community survey 1-year estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_B19013&prodType=table

Adventist HealthCare Rehabilitation CBSA Median Household Income 2017		
Location	**Zip Codes**	**Median Household Income**
District of Columbia	20011	$65,327
	20012	$87,824
	20019	$35,487
	20020	$34,508
	Overall	$77,649
Frederick County	21701	$77,967
	21702	$73,834
	21703	$77,999
	21771	$120,661
	Overall	$88,502
Howard County	20723	$109,230
	Overall	$115,576
Montgomery County	20814	$120,632
	20815	$150,313
	20816	$192,066
	20817	$185,135
	20832	$128,475
	20833	$153,919
	20837	$143,828
	20841	$166,646
	20850	$104,515
	20851	$85,047
	20852	$94,378
	20853	$110,364
	20854	$203,952
	20855	$127,948
	20866	$103,802
	20871	$125,649
	20872	$115,351
	20874	$86,718
	20876	$95,338
	20877	$66,988
	20878	$120,149
	20879	$92,694
	20882	$152,771
	20886	$78,253
	20895	$136,433
	20901	$103,830
	20902	$87,244
	20903	$63,106

	20904	$81,277
	20905	$117,296
	20906	$70,929
	20910	$81,429
	20912	$73,901
	Overall	$103,178
Prince George's County	20705	$82,351
	20706	$74,700
	20707	$78,183
	20708	$68,673
	20712	$51,592
	20721	$123,923
	20737	$61,286
	20740	$63,369
	20743	$60,942
	20744	$96,598
	20746	$64,762
	20747	$60,583
	20748	$66,421
	20770	$69,601
	20772	$104,743
	20774	$95,560
	20781	$74,241
	20782	$65,622
	20783	$63,366
	20784	$64,969
	20785	$67,056
	Overall	$78,607
Maryland	*Overall*	$78,916

Note: Green indicates the location's income is equal to or above the county value. Red indicates the location's income is below the county value (i.e. a potentially vulnerable population.)

Figure 20. Median Household Income by Zip Code, 2017
(Source: Median Household Income in the Past 12 Months 2017 ACS 5-Year Estimates)

The 2017 Federal Poverty Level for a family of four is $24,600.[19] Montgomery County experienced a decrease in residents living below the federal poverty level from 7.5 percent in 2015 to 7.0 percent in 2017. In 2017, across all counties in Maryland, less residents were living below the poverty level (9.7 percent) than in 2015 (10.0 percent). Despite the slight decrease in poverty rates, a large income inequality gap persists. In Maryland, White individuals have the lowest percentage of residents living in poverty when compared to non-White individuals. In Prince George's County White residents have a higher percentage of individuals living in poverty compared to Black and Asian residents who experience the lowest rates of poverty (Figure 21). In Montgomery County Black and Hispanic residents experience poverty at a rate nearly three times that of White residents (Figure 21).

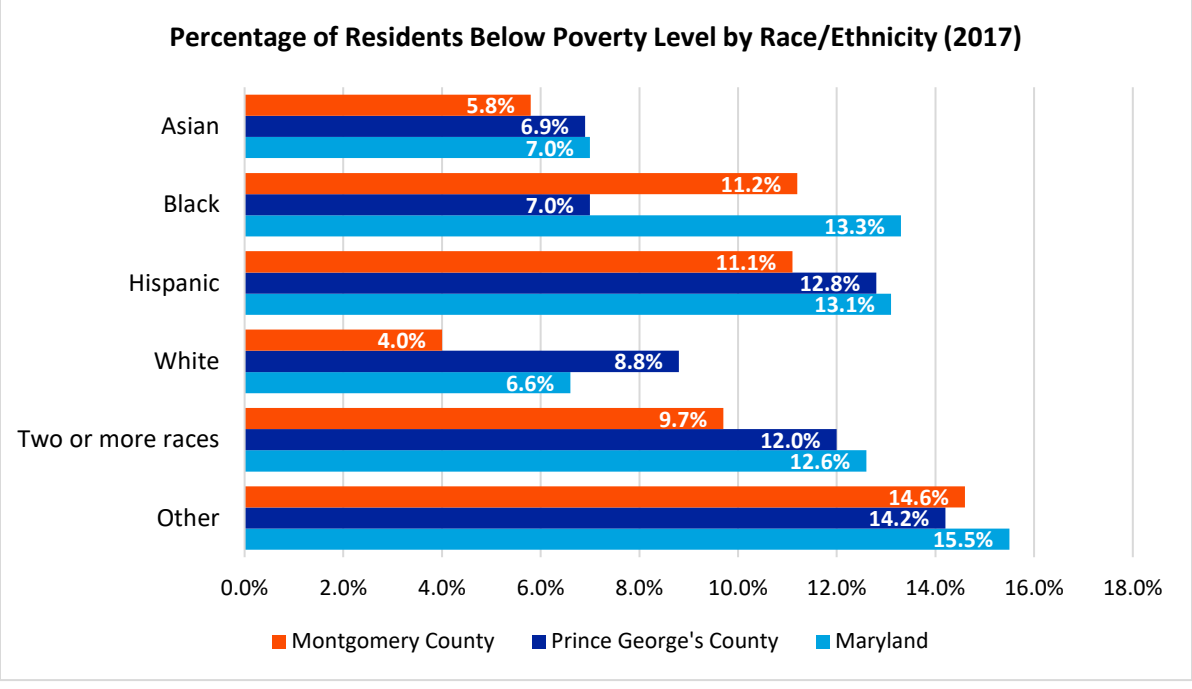


Figure 21. Percentage of Residents in Poverty by Race/Ethnicity in Montgomery and Prince George's Counties and Maryland, 2017
(Source: U.S. Census Bureau – 2017 American Community Survey 1-Year Estimates, Table S1701, 2017)

[19] Office of the Assistant Secretary for Planning and Evaluation. (2017). 2017 Poverty Guidelines. Retrieved from https://aspe.hhs.gov/2017-poverty-guidelines

Access to Care & Health Insurance Coverage

AHRQ's 2015 National Healthcare Disparities Report defines access to healthcare as the efficient and timely use of personal health services to obtain the best health outcomes. The report states that people of color—as well as people with low incomes—are more likely to be uninsured or have coverage through public programs. Overall, people of color tend to have more limited access to healthcare services—and the care they do receive is often of poor quality—which results in a multitude of healthcare complications.[20]

According to the Kaiser Family Foundation, approximately 7.0 percent of all Maryland residents under the age of 65 are uninsured. In 2017, 38 percent of Hispanics in Maryland were uninsured, which is higher than any other racial/ethnic group. Black individuals are most likely to be covered by Medicaid and White individuals are most likely to have health insurance coverage through an employer-based plan than any other racial or ethnic group (Figure 22). In AHC Rehab's CBSA, 20.5 percent of the population is receiving Medicaid which is higher than Montgomery and Prince George's counties as well as Maryland.[21]

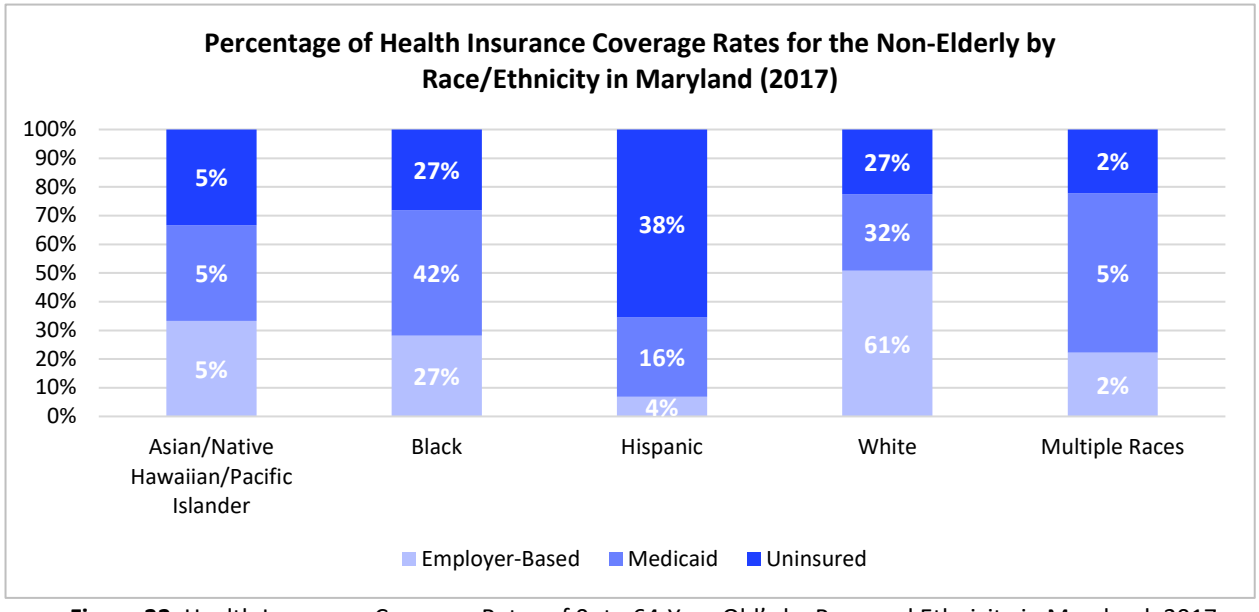


Figure 22. Health Insurance Coverage Rates of 0- to 64-Year Old's by Race and Ethnicity in Maryland, 2017. (Source: Kaiser Family Foundation, 2017)
*Note: Estimates are based on U.S. Census Bureau American Community Survey 2008 - 2017

[20] Agency for Healthcare Research and Quality. (2016). 2015 National healthcare quality and disparities report and 5th anniversary update on the national quality strategy. *AHRQ Pub, 16-0015.* Retrieved from http://www.ahrq.gov/research/findings/nhqrdr/nhqdr15/index.html
[21] Trinity Health Data Hub. (2019). Vital Signs Report – Rehab CBSA. Retrieved from https://trinityhealthdatahub.org/vital-signs-report/

Despite Montgomery County's relative wealth regarding income, education and support for public services, between 80,000 and 90,000 residents are uninsured.[22] More than 100,000 residents in Prince George's County are uninsured.[23]

In Montgomery and Prince George's Counties as well as in Maryland overall, Hispanics are significantly more likely to not have health insurance coverage compared to White and Black individuals (Figure 23).

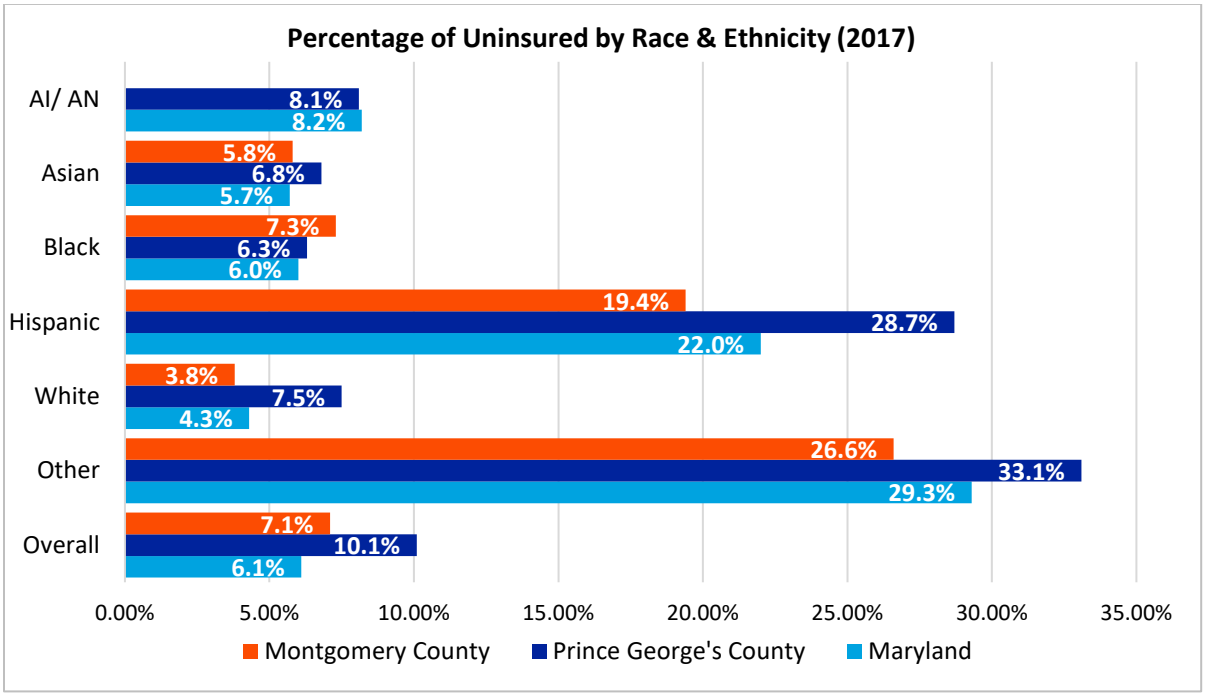


Figure 23. Percentage of Health Insurance Coverage by Race/Ethnicity in Montgomery and Prince George's Counties, 2017
(Source: U.S. Census Bureau-American Community Survey, 2017 1-year estimates)

In Montgomery and Prince George's Counties, men are more likely to be uninsured than women (Figure 24). In Prince George's County the gap is more pronounced with women being 30 percent more likely to be insured than men.

[22] U.S. Census Bureau. (2017). Selected characteristics of health insurance coverage in Montgomery County: 2017 American community survey 1-year estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

[23] U.S. Census Bureau. (2017). Selected characteristics of health insurance coverage in Prince George's county: 2017 American community survey 1-year estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

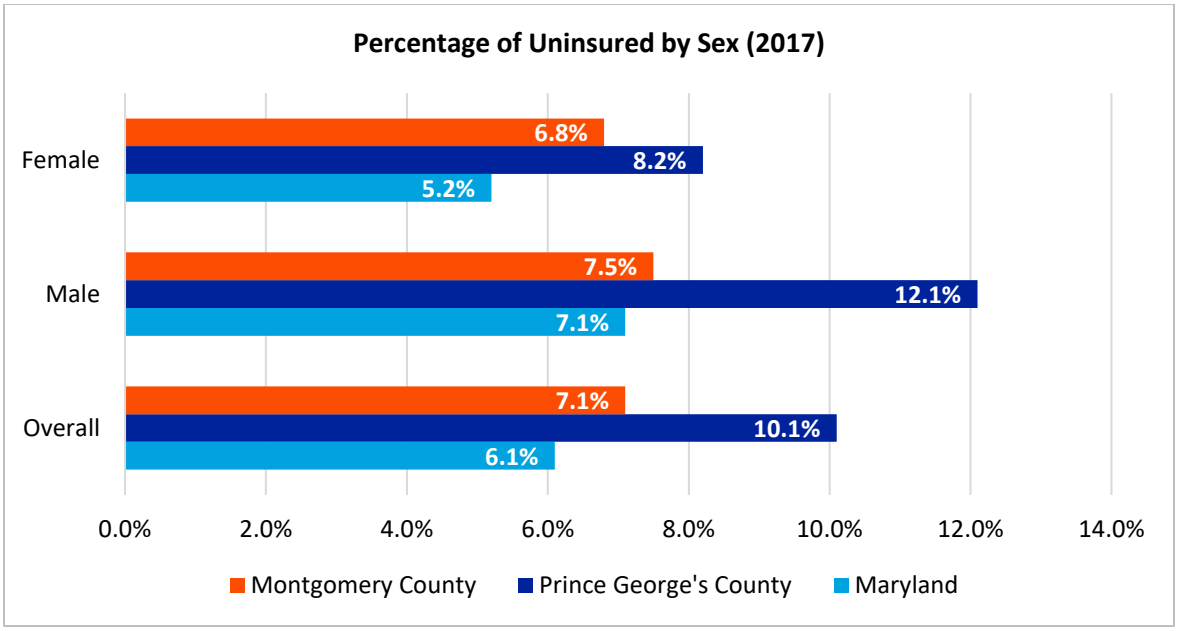


Figure 24. Percentage of Health Insurance Coverage by Sex in Montgomery, Prince George's Counties, and Maryland, 2017
(Source: U.S. Census Bureau-American Community Survey, 2017 1-year estimates)

Within AHC Rehab's CBSA, 10 percent of residents are uninsured.[24] The majority of zip codes located within Rehab's CBSA are below the county averages for percent uninsured (indicated in red in Figure 25).

[24] Trinity Health System (2019). County vitals sign report - Montgomery County and Prince George's County, Maryland. Retrieved from https://cares.page.link/HoXh
U.S. Census Bureau. (2017). Selected characteristics of health insurance coverage in Montgomery County: 2017 American community survey 1-year estimates. Retrieved from https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

Adventist HealthCare Rehabilitation CBSA Percent Uninsured 2017		
Location	**Zip Codes**	**Percent Uninsured**
District of Columbia	20011	8.70%
	20012	5.40%
	20019	4.40%
	20020	4.50%
	Overall	4.70%
Frederick County	21701	5.60%
	21702	7.20%
	21703	7.80%
	21771	3.60%
	Overall	5.30%
Howard County	20723	8.60%
	Overall	4.80%
Montgomery County	20814	2.20%
	20815	3.70%
	20816	1.10%
	20817	2.10%
	20832	2.10%
	20833	4.30%
	20837	3.10%
	20841	3.20%
	20850	5.70%
	20851	21.70%
	20852	5.60%
	20853	9.60%
	20854	2.50%
	20855	5.60%
	20866	9.90%
	20871	4.80%
	20872	3.20%
	20874	7.60%
	20876	8.90%
	20877	18.70%
	20878	5.30%
	20879	9.40%
	20882	3.10%
	20886	11.70%
	20895	4.40%
	20901	11.90%
	20902	16.20%
	20903	25.20%

	20904	10.60%
	20905	7.10%
	20906	14.00%
	20910	6.00%
	20912	14.70%
	Overall	8.40%
Prince George's County	20705	11.80%
	20706	14.10%
	20707	9.70%
	20708	11.50%
	20712	18.80%
	20721	4.00%
	20737	26.60%
	20740	9.20%
	20743	10.70%
	20744	9.30%
	20746	10.00%
	20747	8.40%
	20748	8.70%
	20770	12.70%
	20772	5.50%
	20774	6.40%
	20781	19.10%
	20782	19.00%
	20783	35.00%
	20784	17.50%
	20785	11.40%
	Overall	11.90%
Maryland	*Overall*	7.30%

Note: Green indicates the location's uninsured percentage is below the county value. Red indicates the location's uninsured percentage is above the county value

Figure 25. Percent Uninsured by zip code, 2017
(Source: Selected Characteristics of Health Insurance Coverage 2017 ACS 5-Year Estimates)

Section III: Methodology

Data Collection

Overview

In completing the Community Health Needs Assessment (CHNA) process, Adventist HealthCare strived to construct a complete picture of the needs and resources in the community. To do this, three strategies were utilized during the data collection and analysis process:

- **Collecting Input from the Community as well as from Reliable Secondary Sources**
  Secondary data sources provide a big picture perspective of the needs in a community. They can provide information on the magnitude of a need, whether the need has increased or decreased over time, and how it compares to other population groups or geographic locations. Secondary data helps to answer the question of *what* the need is. This information can be made richer with the addition of input directly from community members and key stakeholders. From this input additional details, insights, and personal perspectives that may otherwise have been missed can be accounted for.

- **Focusing on Social Determinants of Health as well as Physical and Mental Health Needs**
  Social determinants of health can begin to answer the question of *why.* By considering social determinants such as income, insurance status, and transportation, among others, additional insight can be obtained regarding underlying causes of health problems as well as barriers to addressing them.

- **Utilizing a Health Equity Lens**
  Significant disparities continue to persist in health and health care. As permitted by availability, data in this report is presented stratified by demographics such as race, ethnicity, sex, and age. By stratifying the data disparities that may have otherwise been masked in aggregate are brought to the forefront. By stratifying, the question of *who* is most in need can be better answered.

Through a clearer understanding of what the needs are, who is most affected, and what barriers they may face, a more strategic and targeted plan of action can be developed to address the needs in the community.

Secondary Data Collection

Several sources of secondary data were utilized in completing this CHNA. Sources included but are not limited to: Healthy Montgomery, PGC Health Zone, the Maryland State Health Improvement Process, U.S. Census Bureau's American Community Survey, Maryland Behavioral Risk Factor Surveillance System, National Cancer Institute, Centers for Disease Control and Prevention, and Community Commons.

All secondary data is presented in a standard format. When possible:

- **Data is stratified by race, ethnicity, sex, and age** to highlight any disparities that may be present;
- **A time series is provided** to better understand how each indicator has changed over time, whether it is improving, worsening, or has plateaued; and
- **Relevant targets and benchmarks are included** to provide perspective on how each indicator on the local level compares to other geographic areas and/or established targets (e.g. Healthy People 2020 goals).

Community Input

A key priority of this CHNA was to gather input from a diverse and representative sample of the community. Several strategies were employed to achieve this including partnering with the Local Health Improvement Coalition (Healthy Montgomery), conducting a community survey, and completing key informant interviews and community conversations.

Partnership with Healthy Montgomery

Adventist HealthCare, in addition to the other Montgomery County hospitals, collaborates with Healthy Montgomery which serves as the Local health Improvement Coalition. Healthy Montgomery works to bring together the county government, hospital systems, minority health programs, advocacy groups, academic institutions, and other community-based stakeholders to achieve optimal health and well-being for all county residents. The group works to set a health priority agenda as well as an action plan to address the prioritized needs. In doing so, the group has established a core measure set for the top priority areas as well as a community health dashboard for the county. The dashboard encompasses indicators that span physical and mental health, health behaviors, and social determinants.

Adventist HealthCare contributes $50,000 annually to support the infrastructure of Healthy Montgomery. In addition to providing financial support, representatives from Adventist HealthCare (AHC) play an active role through representation on multiple committees and planning groups including the Healthy Montgomery Steering Committee which sets the direction for the group.

In completing this CHNA, Adventist HealthCare utilized the Healthy Montgomery priority areas not only as a starting point for identifying the needs in the community but also as a factor for consideration when completing the prioritization process.

Community Survey

The Community Health Needs Assessment Survey consisted of thirteen questions centered on health status, access to care, and perceived community health needs and strengths. Available in English and Spanish, the survey was disseminated through several avenues including at community events and programs, via email and listservs, social media, and through community partners and organizations. To encourage participation, three prizes were offered as incentive. All survey participants were provided with the option to enter the voluntary raffle upon completing the survey for a chance to win a $300 Amazon gift card or one of two $50 Visa gift cards. Identifying information collected in connection with the raffle entry was stored separately from, and not associated with survey responses to maintain confidentiality.

Key Informant Interviews & Community Conversations

In complement to the data collected through the community survey, key informant interviews were conducted with community leaders and organizations that represent the interests of diverse and often hard to reach populations.

Stakeholders across Montgomery and Prince George's Counties were interviewed and included representatives from multiple sectors and populations such as:

- County Government
- Social Service & Advocacy Organizations
- Healthcare Foundations
- Health Care Practitioners & Clinics
- Fire and Rescue, Law Enforcement, and Crisis Intervention
- School & University Systems
- Behavioral Health
- Housing & Homelessness
- Food Security & Distribution
- Employment & Workforce Development
- Multiple Faith Communities & Denominations
- LGBTQ Communities
- People with Disabilities
- Minority and Immigrant Populations

To ensure consistency, a script was developed outlining the purpose of the interview, how the data would be used, and three primary questions to ask. Each interviewee was asked to identify what they believed to be the top issues impacting the health of the community; what strengths and resources are available in the community; and what services or resources they would like to see to address the health needs of their community.

In addition to the key informant interviews, Adventist HealthCare partnered with Manna Food Center to conduct community conversations at various community centers and schools. Similar to the community survey and key informant interviews, the community conversations centered around identifying community needs, existing resources, and desired services to address existing gaps.

Public Comment

Adventist HealthCare welcomes feedback from the public on past and current Community Health Needs Assessments. A dedicated email address (ourcommunity@adventisthealthcare.com) is listed on the Adventist HealthCare website along with each hospital's report.

Data Gaps & Limitations

Data gaps and limitations were present in both the secondary data collection as well as the community input collected.

When compiling and analyzing available secondary data, the following limitations persist:

- Data is often unavailable at the ZIP code or neighborhood level
- Race is often not differentiated in persons of Hispanic origin
- Varying data collection and analysis methodologies are utilized across databases
- While trend data is now more readily available, it is often unavailable or difficult to access historical data points stratified by race and ethnicity

A significant challenge when collecting input from community members is ensuring that a representative sample is being reached and that the voices of hard to reach populations are being heard. Surveys in particular tend to have overrepresentation of Whites, females, and individuals with higher income and education levels. While this cycle's survey results were more representative than in the previous Community Health Needs Assessment, the demographics were still skewed. To address this limitation, targeted key informant interviews and community conversations were conducted.

Prioritization of Needs

Process and Criteria Used

The prioritization of needs for this Community Health Needs Assessment cycle was completed on a system level. The initial prioritization was led by Adventist HealthCare's Community Benefit Steering Committee (CBSC). The purpose of the CBSC is to guide the community benefit work of Adventist HealthCare to fulfill our mission and improve the health and wellbeing of the community we serve. The CBSC is comprised of leaders from each of our hospital entities as well as from population health, mission integration and spiritual care, marketing, philanthropy, and finance.

To complete the prioritization process, the CBSC members were asked to evaluate each of the identified areas of need utilizing the following factors:

- **Incidence and Prevalence**: How big of a problem is the need in the community?
- **Presence and Magnitude of Disparities**: Are some populations disproportionately burdened?
- **Change over Time**: Has the need improved, worsened, or seen no change in recent years?
- **County Alignment**: Is the health area aligned with Montgomery and Prince George's County priority areas?
- **Community Support**: Based on the community input collected, is this a significant area of need?
- **Gaps and Resources in the Community**: Are there existing resources sufficiently addressing the need or are additional resources needed? Where specifically do the gaps lie?

- **Alignment with Adventist HealthCare Strategy:** Does this area align with an Adventist HealthCare strategy or area of focus?
- **Existing Adventist HealthCare Resources and Expertise**: Does Adventist HealthCare have expertise in this area? Are there existing resources that could be utilized to address this area of need?
- **Existing and Potential Partnerships**: Does Adventist HealthCare have relevant existing partnerships that can be leveraged or potential partnerships that can be developed?
- **Potential for Measurable and Achievable Outcomes**: Will it be possible to make an impact in this area? Are there relevant metrics that can be monitored and measured?

Based on these factors, CBSC members were asked to recommend which of the following would be an appropriate role for Adventist HealthCare to take in addressing the area of need:

- **Leader Role:** Adventist HealthCare is well positioned to take a leadership role in addressing this area.
- **Collaborator Role:** Adventist HealthCare will partner with other leading organizations to actively address this area.
- **Supporter Role:** While Adventist HealthCare recognizes the importance of this area of need on the wellbeing of our community, it is currently outside the scope of our strengths and resources to address directly. Adventist HealthCare will support the work of other organizations doing work in this area.

Prioritized Needs

For the 2020 - 2022 Community Health Needs Assessment Cycle, Adventist HealthCare has prioritized addressing unmet needs of uninsured and underserved populations in the following areas:

ACCESS TO CARE	SOCIAL DETERMINANTS OF HEALTH
Behavioral Health	Food Access
Chronic Disease	Housing and Homelessness
Maternal and Child Health	Education
Disability and Rehabilitation Services	Transportation

Specific initiatives addressing each of these areas -- including Adventist HealthCare's role, partner organizations and evaluation plans -- will be detailed in each hospital's Implementation Strategy to be released in May of 2020.

Section IV: Findings

Section IV: Findings

Part A:
Community Input

Community Survey

Overview

In the spring of 2019 Adventist HealthCare conducted a thirteen question survey centered on health status, access to care, and perceived community health needs and strengths. A total of 1,957 community residents completed the survey. Additional information on the methodology for the survey data collection can be found in Section III of this report.

Demographics of Survey Respondents

Of the 1,957 respondents, 1,909 (97.5 percent) live in the Adventist HealthCare Rehabilitation Hospital community benefit service area. While the demographics of this cycle's survey respondents are more reflective of the community, there continues to be an overrepresentation of Whites, females and individuals with higher income and education levels.

- The majority of survey respondents identified as White (65.2 percent) followed by Black or African American (17.0 percent) (Figure 1).
- 11.1 percent of respondents identified as Hispanic or Latino (Figure 2).
- More than three times as many females responded to the survey as did males (Figure 3).
- Age groups of respondents were well distributed. Those aged 56-65 accounted for the largest group while those aged 18-25 accounted for the smallest group (Figure 4).

SURVEY RESPONDENTS BY RACE

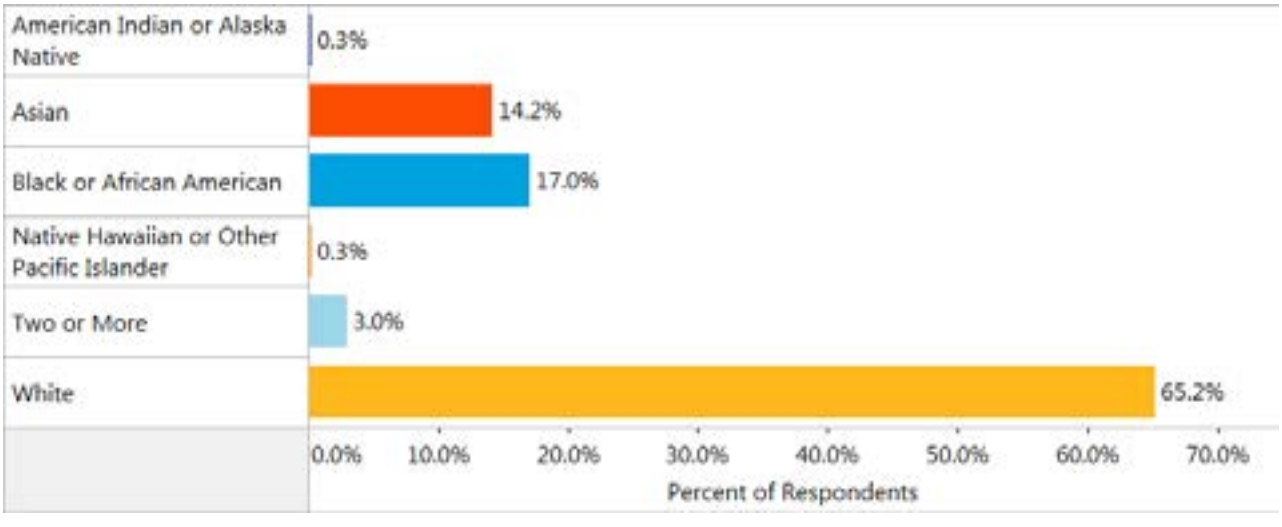


Figure 1. Survey Respondents by Race, 2019

SURVEY RESPONDENTS BY ETHNICITY

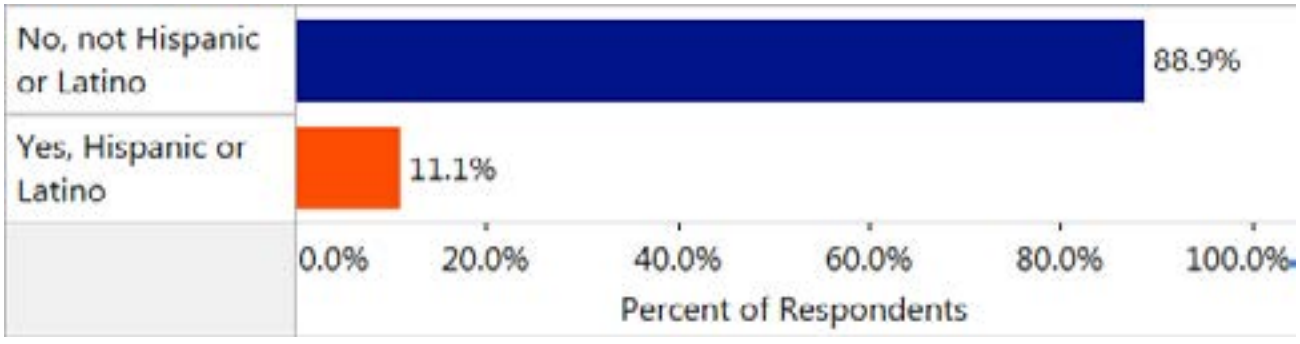


Figure 2. Survey Respondents by Ethnicity, 2019

SURVEY RESPONDENTS BY GENDER

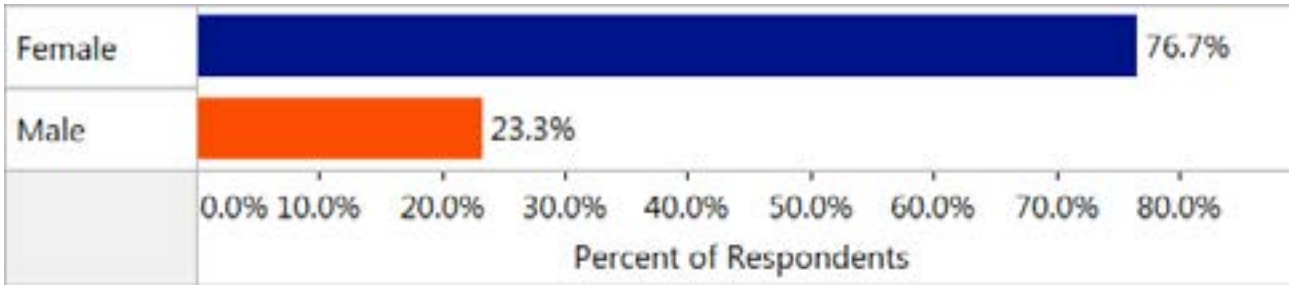


Figure 3. Survey Respondents by Gender, 2019

SURVEY RESPONDENTS BY AGE

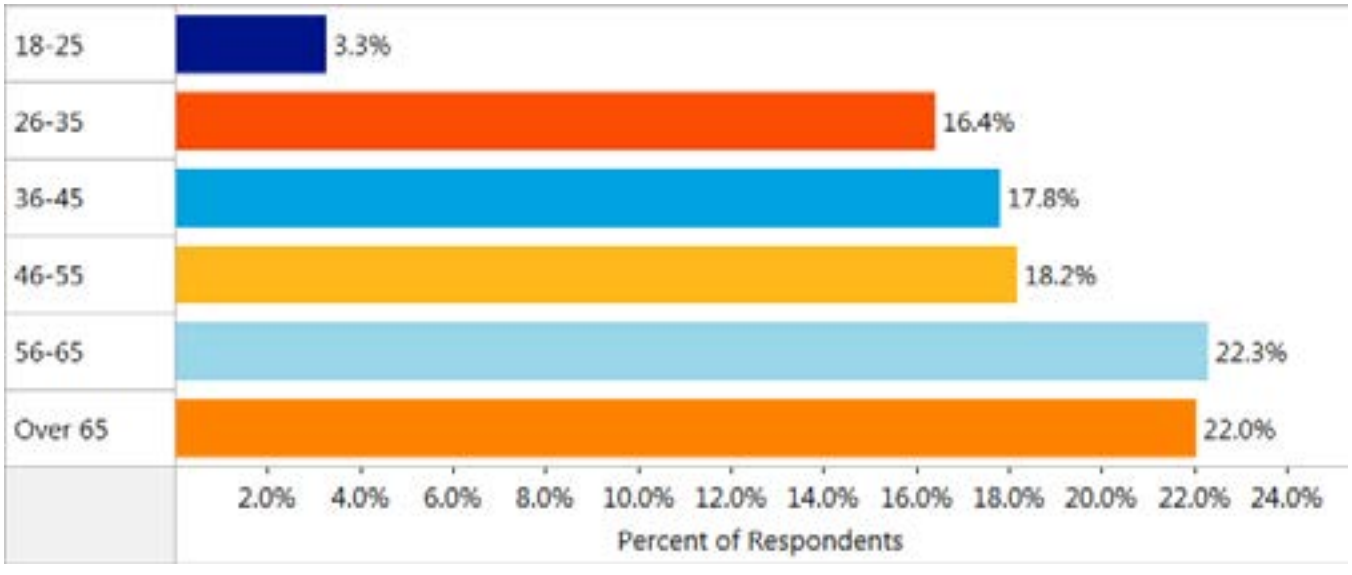


Figure 4. Survey Respondents by Age, 2019

In terms of socioeconomic status, as measured by annual income and highest level of education, the participant pool was skewed more towards the upper range. However, compared to previous CHNA cycles, there is better representation of lower income households.

- Over half of the respondents have an annual income exceeding $75,000 (Figure 5).
- Over 70.0 percent of respondents have a college degree, with 40.2 percent having also earned a post graduate degree (Figure 6).

SURVEY RESPONDENTS BY ANNUAL INCOME

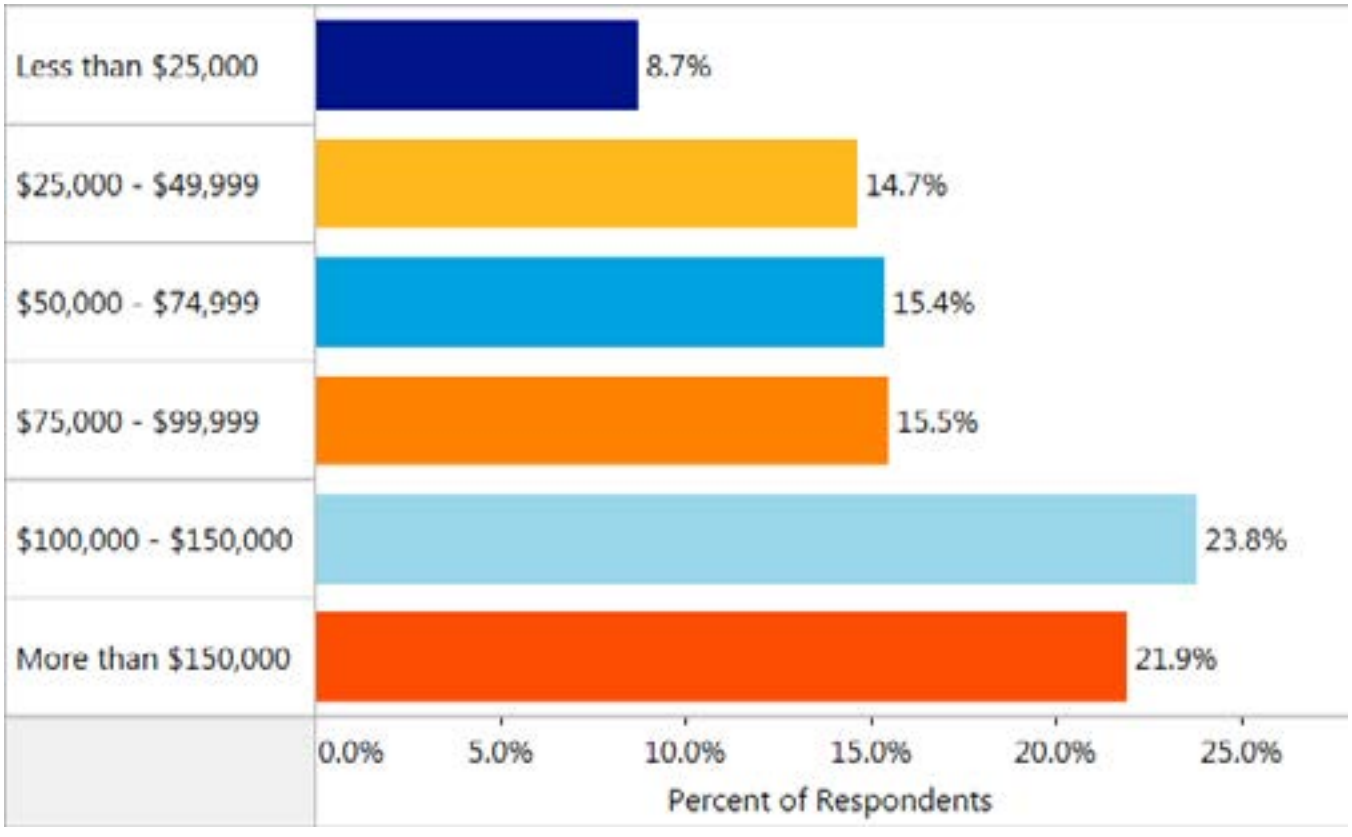


Figure 5. Survey Respondents by Annual Income, 2019

SURVEY RESPONDENTS BY HIGHEST LEVEL OF EDUCATION

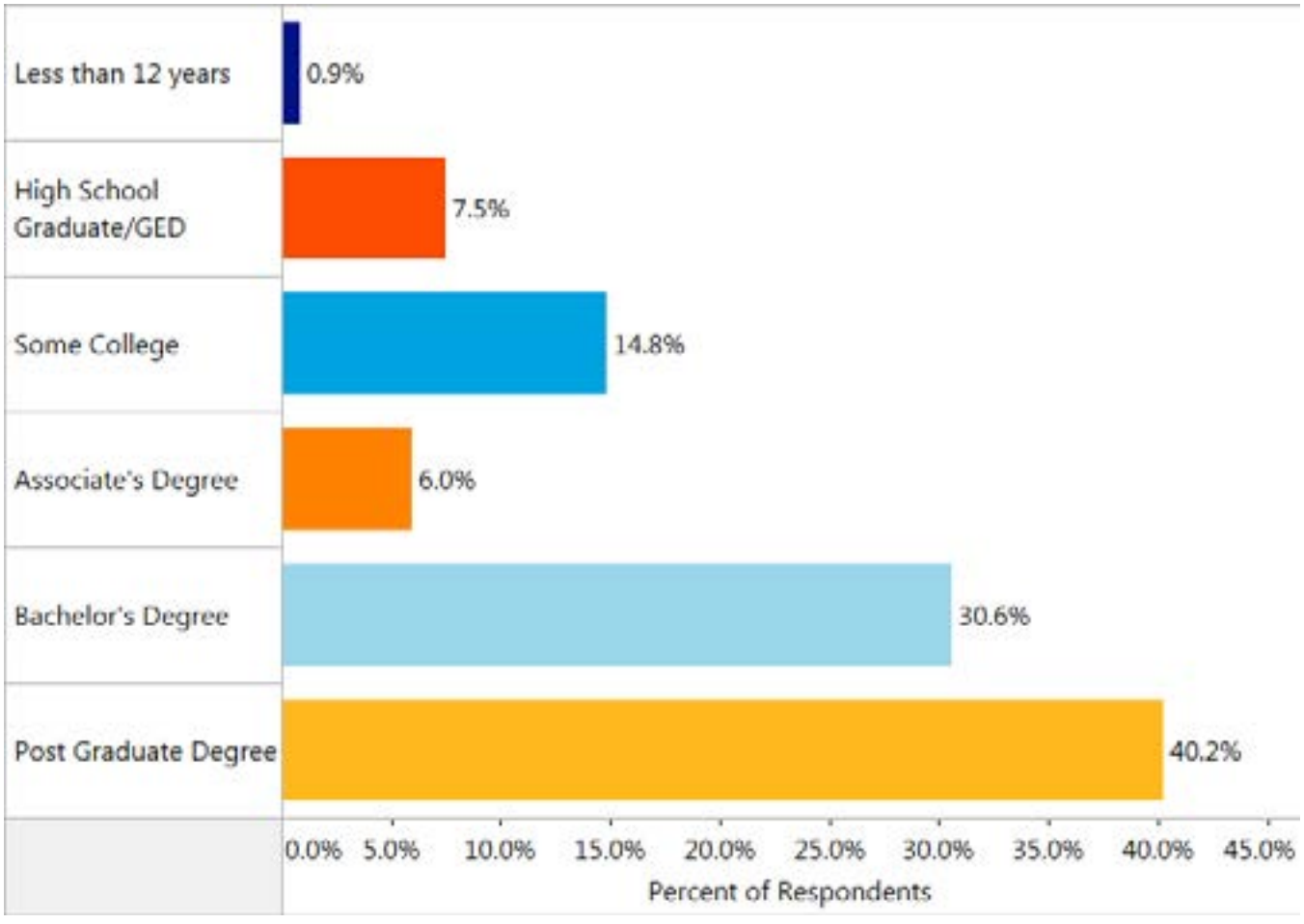


Figure 6. Survey Respondents by Highest Level of Education, 2019

Survey Findings

Participants were asked to rate their overall mental and physical health on a scale of poor to excellent.

- Over 60.0 percent of respondents rated their mental health as either very good or excellent (Figure 7).
- Most participants rated themselves to be in good (38.6 percent) or very good (31.9 percent) physical health (Figure 8).

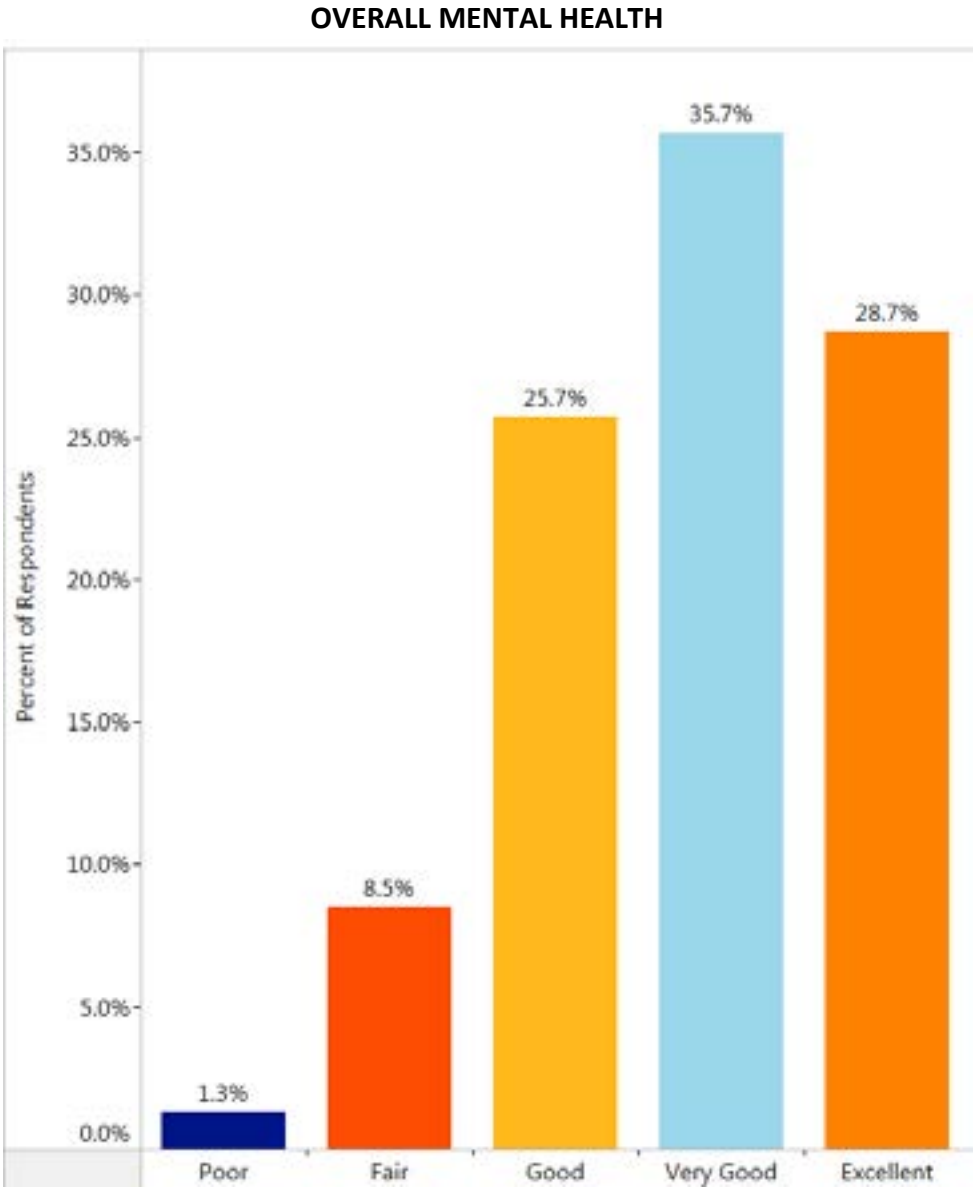


Figure 7. Survey Respondents Self-Reported Overall Mental Health, 2019

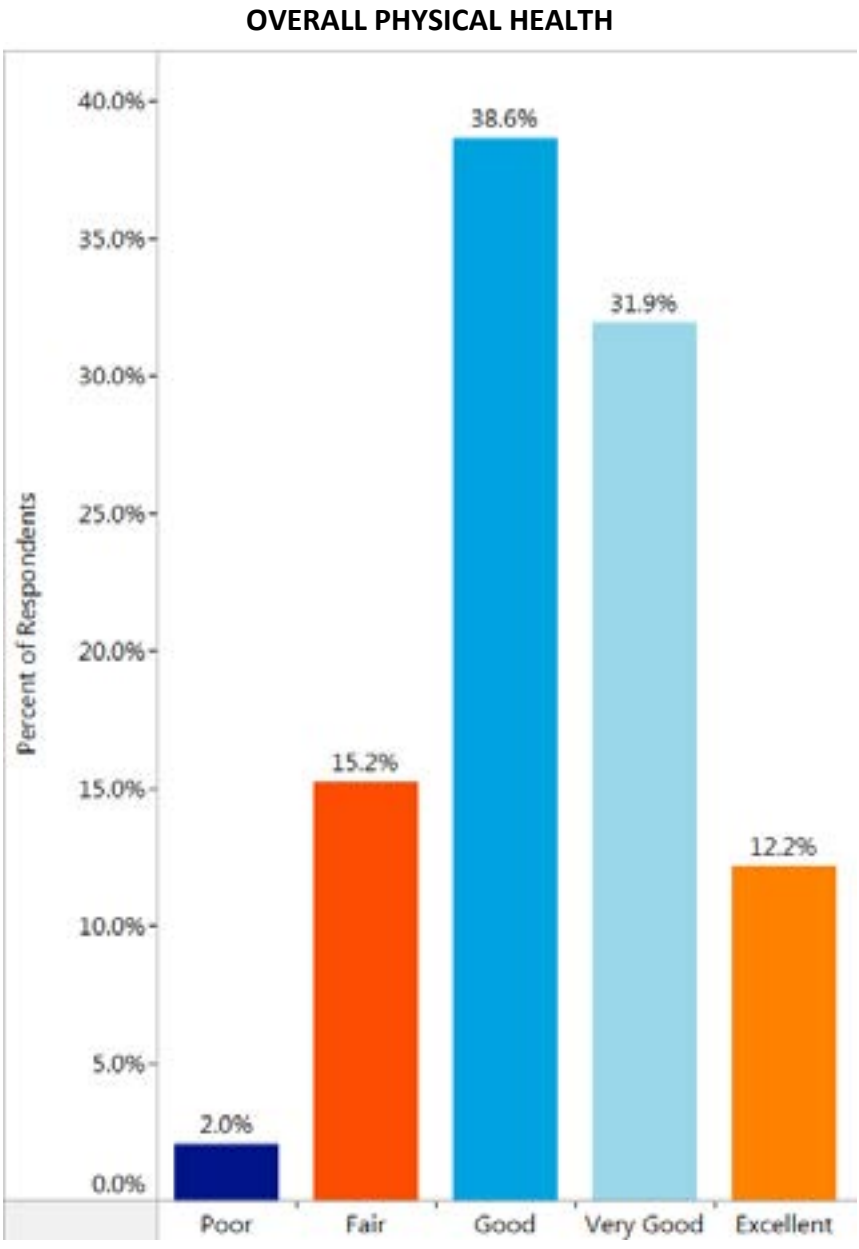


Figure 8. Survey Respondents Self-Reported Overall Physical Health, 2019

Survey participants were asked if they can visit a doctor (other than at a hospital or emergency room) when needed.

- 63.4 percent of respondents reported that they are always able to see their doctor when needed (Figure 9).
- Respondents unable to see a doctor when needed reported an inability to get an appointment quickly, busy work schedules, and inconvenient doctor's office hours as the top three barriers (Table 1).

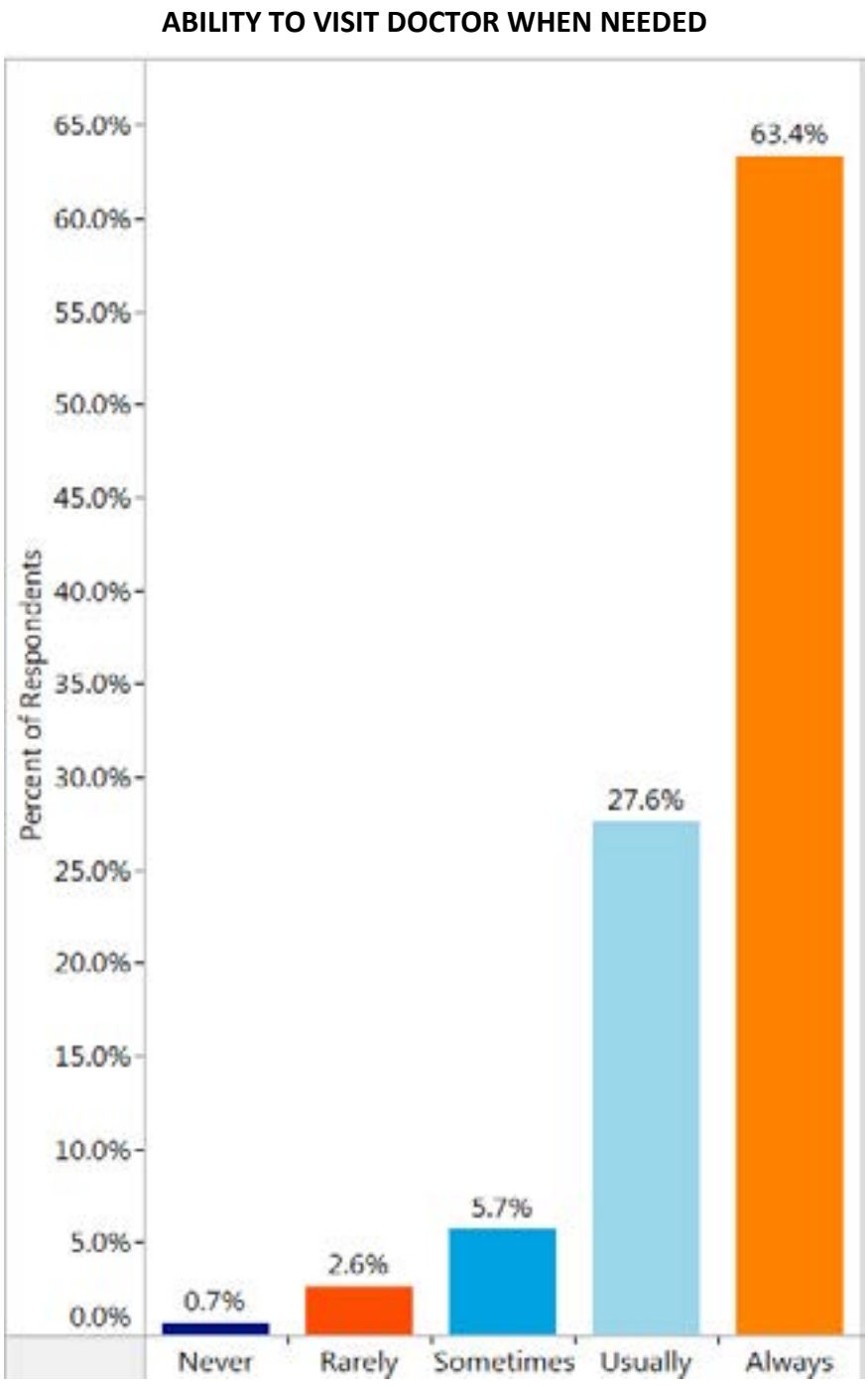


Figure 9. Survey Respondents Self-Reported Ability to visit a Doctor When Needed, 2019

Rank	Reasons for Not Being Able to Visit a Doctor	Number of Respondents
1	I cannot get an appointment quickly	274
2	I have a busy work schedule or am unable to take time off work	202
3	My doctor's office hours are not convenient	92
4	I am concerned that it would be too expensive	82
5	I do not have a regular doctor	75
6	I do not have health insurance	32
7	I am unable to get childcare	30
8	I cannot find a doctor that is accepting new patients	28
9	My doctor is too far away	26
10	I do not have access to transportation	22
11	I cannot find a doctor who accepts my insurance	20
12	*Other*: I need care outside of business hours or weekends	15
13	*Other*: I need a specialist	9
14	I cannot find a doctor that speaks my language	8
15	*Other:* Emergency situations	2
16	*Other*: Mental health services/providers are not available or hard to find	2
17	*Other:* My doctor is rude	2
18	*Other:* Unsure of what doctor to see	1
19	*Other:* Fatigue	1
20	*Other:* I sometimes need someone to come with me	1

Table 1. Reasons for Not Being Able to Visit a Doctor, 2019

Participants were asked about their health maintenance and prevention practices. Participants were asked to indicate when they last had a physical checkup, dental exam, mammogram, pap smear, colonoscopy, and flu shot.

The results show that most respondents completed doctor visits and screenings within the recommended time frames. For example, within the prior year 82.2 percent of respondents had a physical exam, 78.9 percent had a dental exam, and 76.2 percent received a flu shot (Table 2).

How long has it been since you last?	Less than 6 months	6 months to 1 year	1 – 2 years	3 – 5 years	More than 5 years	Never	N/A
Visited a doctor for routine check-up or physical (n= 1,896)	51.7%	30.5%	12.0%	3.0%	2.1%	0.4%	0.4%
Had a dental exam (n= 1,894)	58.9%	20.0%	10.9%	4.6%	4.4%	0.6%	0.7%
Had a mammogram (Women Only) (n= 1,679)	23.5%	22.2%	13.2%	3.7%	2.1%	17.1%	18.2%
Had a pap test/pap smear (Women Only) (n= 1,683)	19.4%	25.7%	22.7%	7.8%	4.4%	1.9%	18.0%
Had a sigmoidoscopy or colonoscopy to test for colorectal cancer (n= 1,878)	7.0%	6.7%	13.8%	17.3%	9.9%	37.0%	8.4%
Had a flu shot (n= 1,884)	64.4%	11.8%	6.3%	2.6%	3.6%	10.3%	1.1%
Had cholesterol checked (n= 1,878)	48.1%	29.7%	12.0%	3.3%	1.5%	4.1%	1.3%
Had blood sugar or A1C checked (n= 1,872)	49.2%	27.0%	10.3%	2.7%	1.6%	5.9%	3.3%
Had blood pressure checked (n= 1,891)	79.7%	14.0%	3.8%	1.2%	0.5%	0.6%	0.5%
Had a prostate exam (Men Only) (n= 1,427)	8.2%	6.0%	4.5%	2.5%	1.8%	12.1%	65.0%

Table 2. Survey Respondents Health Prevention and Maintenance History, 2019

Participants were asked about behaviors that may impact their health.

- Most participants indicated that they do not use tobacco products, however 15.6 percent are exposed to second hand smoke (Table 3)
- Over 25 percent of participants are consuming less than 2 servings of fruit per day over 20 percent are consuming less than two servings of vegetables (Table 3)
- Less than half of respondents are exercising for 30 minutes per day (Table 3)

In the last 30 days, did you?	Yes	No	Don't Know/Not Sure
Chew tobacco or smoke cigarettes, cigar, or pipes (n= 1,901)	4.6%	95.0%	0.6%
Use e-cigarettes or vape pens (n= 1,894)	2.0%	98.0%	0.5%
Breathe second hand smoke (n= 1,890)	15.6%	76.6%	7.8%
Take drugs not prescribed to you (n= 1,888)	1.3%	98.0%	0.9%
Have more than 2 (women) or 3 (men) drinks on a single occasion (n= 1,897)	18.7%	80.0%	1.3%
Eat at least 2 servings of vegetables a day (n= 1,886)	74.3%	20.2%	5.5%
Eat at least 2 servings of fruit a day (n= 1,776)	68.5%	26.5%	5.0%
Exercise for 30 minutes or more a day (n= 1,901)	48.8%	47.7%	3.5%

Table 3. Survey Respondents Health Behavior, 2019

Participants were asked whether in the past five years, they have been treated unfairly when receiving medical care. 38.9 percent of respondents indicated that they had been treated unfairly when receiving care (Figure 10).

- Most respondents indicated that they were unsure why they received unfair treatment. For those respondents that indicated a reason, the top responses included age, race or skin color, and gender or gender identity (Table 4)
- Common write-in responses included weight, insurance type or status, and the provider being rushed (Table 5)

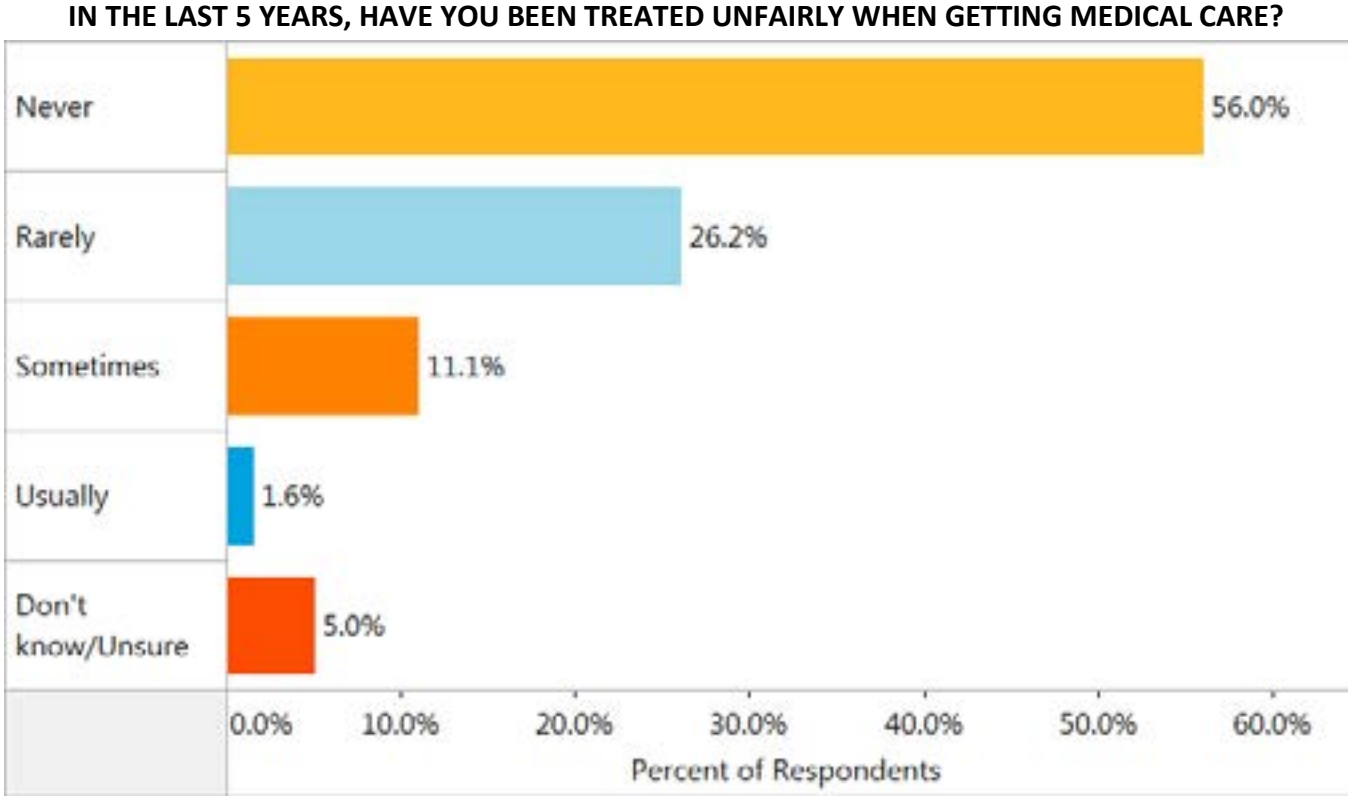


Figure 10. Survey Respondents Self-Reported Being Treated Unfairly When Getting Medical Care, 2019

Rank	Self-reported Reasons for Being Treated Unfairly When Getting Medical Care	Number of Respondents
1	Don't know/Unsure	357
2	Other	182
3	Your age	70
4	Your race or skin color	58
5	Your gender or gender identity	61
6	You speak with an accent	25
7	English is not your native language	28
8	Your ancestry or national origin	26
9	Your sexual orientation	5

Table 4. Survey Respondents Reason for Being Treated Unfairly When Getting Medical Care, 2019

"Other" Reasons for Being Treated Unfairly When Getting Medical Care	Number of Responses
Weight	46
Insurance type or status (uninsured/underinsured)	28
Provider was rushed	26
Provider was rude/had an attitude	12
Mental health condition	5
Lifestyle choices	5
Disability	4
Previous medical history	4
Patient's preference for provider gender	2
Tattoos	2
Socioeconomic status	2

Table 5. Survey Respondents "Other" Reason for Being Treated Unfairly When Getting Medical Care, 2019

Emerging Themes

Overview & Key Findings

In addition to the community survey, Adventist HealthCare conducted 35 key informant interviews with over 75 stakeholders and 4 community conversations with approximately 25 participants. Details on the methodology for each of these data collection strategies can be found in Section III of this report.

Survey participants, key informants and community conversation participants were all asked about the:

- top health needs and concerns affecting their community,
- strengths and resources in their community that contribute to wellbeing, and
- current gaps in resources or programming they would like to see filled to optimize the health of their community.

In response to the questions above, survey responses focused on the physical environment and wanting more community resources to provide free workout classes, low cost gyms, educational workshops on healthy eating habits, parenting workshops, and health screenings or wellness checks at main hubs of the community (Figure 11).

Figure 11. Community Survey Word Cloud for Community Needs and Gaps, 2019

Main points addressed during key informant interviews and community conversations centered on entering and exiting the healthcare system including the follow up after care, unintended utilization of healthcare services, behavioral health issues, unemployment and job security, physical health needs, and the growing senior population (Figure 12).

An additional recurring theme across all input received was the desire to see an increase in engagement of community members to counter experiences of isolation and stress (Figures 11 and 12).

Figure 12. Key Informant and Community Conversation Word Cloud for Community Needs, Strengths and Gaps, 2019

Findings

Physical Environment

Concerns with the physical environment were oriented to the safety of parks, sidewalks, litter or pollution, and the large number of fast food chains in the community.

Community members were concerned with the condition and associated safety of their physical environment. Some attributed the decline in their existing green spaces due to rapid development and construction in their neighborhoods. They also highlighted that parks should be upgraded and be accessible to all ages and physical abilities. Some had apprehensions about the safety of their parks which limited their desire to utilize them.

> *"I would like to take my child out to the park, but it is so un-kept with broken bottles everywhere that it is unfeasible to do so."*

Many voiced issues around poorly maintained sidewalks and roads and that they desired "*safer pedestrian walkways, raised crosswalks, and bike lanes."* There were also concerns surrounding pedestrians being hit by cars due to "*not watching before crossing streets assuming cars will stop for them"* and that others would like to see reductions in car use and to make "*more car free zone for pedestrians.*" Some voiced that increasing car-sharing programs or bike rental services would assist in transportation for those that can't easily afford it and reduce dependency on personal cars or public transportation. Concerns surrounding safety weren't siloed to community parks but also to public and private transportation. One individual stated, "*I have been in [metro] cars where I have felt that my personal safety or others' could be at risk."*

There were many complaints focused around litter and pollution within the community that were also tied to larger concerns about climate change. Some of these areas of pollution were due to large factories in their communities that they felt impacted the air quality and water contamination with one individual stating concerns of the "*use of pesticides in agricultural areas that run off into our water supplies*" while others stated that it was likely due to car exhaust.

The other major area mentioned about the physical environment was the large number of fast food options and few areas of healthy quick food options. Others specified wanting more access to healthy food options and would highlight wanting farmer's markets and healthier food stores to move into their local neighborhoods.

Community Resource Hubs

Many community members discussed their desire to see community resource hubs that provide multiple services in one location. Desired services included health education classes, parenting resources, behavioral health screenings and treatment, physical health screenings, and treatments to address acute crisis.

Many community members voiced the desire for a distinct physical or online platform with multiple resources for various populations. This desire for this type of a resource was due to difficulties navigating existing resources in the community. One member specified wanting, "*A service to help you find resources other than your insurance company*."

Some community members indicated that they desired exercise and health education classes that are free or low cost including "*nutrition counselors and cooking classes to counteract [the] epidemic of obesity. Also teach people how to shop with in-store counselors and educators."* Others mentioned that health education courses should be focused on how to manage chronic illnesses like diabetes and should include "*how to shop for healthy and culturally appropriate foods here."* Another area of interest for healthy eating behaviors was how to learn to garden and grow your own vegetables.

> *"If you are working you cannot engage in free activities that improve your health, they are offered during working hours."*

Other activities suggested to be provided by these resource centers were physical activity classes for all ages and physical abilities. There were concerns about the cost of these types of activities that might not be affordable to those with lower incomes.

Health literacy classes were also suggested including how to, "*explain Medicare, vaccines, medical bills etc."* Some suggested having community health workers to provide these types of classes or information. They also desired for some level of social services to assist at these resource centers to provide information around paying for food and utilities. Some desired behavioral health resources and coping mechanisms like support groups, yoga, acupuncture, and meditation. One individual indicated the need for, "*classes that focus on self-esteem for adults*."

Lastly, there was a desire for resources focused on new or single parents and youth. These resources included better access to childcare for young children, parenting classes to "*educate parents on effective parenting*", "*mom friendly fitness or rec centers for parents with young children that are more affordable*", and "*access to breastfeeding/postpartum supports for mothers and families."* Other desires for the community involved more opportunities for free or cost-effective activities for children, including general recreational and educational afterschool programs.

Barriers to Healthcare Access

One of the most frequently mentioned topics was navigating the healthcare system. There were many concerns and barriers mentioned about entering the healthcare system, knowledge about insurance and government benefit programs, and how to navigate exiting the healthcare system and accessing needed follow-up care. Barriers entering the healthcare system were centered around language needs, insurance status, cost of care, transportation, and lack of quality healthcare providers.

Community members voiced a desire for information on how to interact with healthcare providers to be more knowledgeable about resources that would be available to them based on their eligibility for government benefits around disability, Medicare, and Medicaid. They also desired guidance on how to have discussions around medication management.

> *"When it comes to behavioral health calls, particularly for those with alcohol or substance abuse struggles, we are seeing the same people over and over. Unfortunately, we often don't have anywhere else to take them other than the ER." – EMS Personnel*

Some community members also discussed exiting the healthcare system and follow-up care as being areas of concern. After being released from the hospital there is often a lack of resources and social support for the patient to receive the care they need. This lack of family structure or "*who walks the journey with you*" was mentioned by many community members who expressed a need for more guidance from healthcare professionals and greater collaboration with family members to coordinate care to adequately meet the physical and social needs of the patient.

Language was often cited as a barrier to accessing healthcare, more specifically lack of translation and interpreter services to provide information and care in multiple languages.

> *"Unfortunately, many top ranked doctors and pediatricians do not take Medicaid."*

Cost of care was often brought up in conversations, often influenced by insurance status, high costs of co-pays, or self-pay costs. Many community members felt that the health insurance they have is too expensive or that the insurance they can afford has limited benefits. Others felt that they received subpar care from medical providers based on their insurance status, particularly if they had Medicaid. Many felt that lower costs of healthcare or insurance would encourage individuals to seek healthcare more frequently. Others also expressed a need for "*more community services for those who don't have medical coverage*" to help increase the uptake of

> *"Even though resources are out there, the problem remains that people or communities lack information due to factors like language barriers."*

services. Some of these conversations were focused on increasing preventative care and avoiding the reliance on the emergency services.

Transportation challenges were another area of concern for some that could not afford public or private transportation. For those that frequently used public transportation, they discussed how it wasn't always reliable for arriving on time for appointments and that it was not always able to accommodate individuals with physical disabilities. For those with physical mobility constraints, there is also the extra challenge of getting out of their homes to get to the bus stop, medical taxi or other form of public transport.

A lack of locally accessible quality providers and services was also discussed. It was noted that many local providers had a long waitlist for services or that ideal providers weren't located locally. To meet the need of more locally available health services, many community members shared thoughts to mitigate this which included having free health screening clinics, mobile healthcare vans, and health fairs for free medical and dental screening. Additional suggestions included home or community visits from doctors or telemedicine options if in-person healthcare visits weren't feasible or if patients were experiencing homelessness.

Unintended Utilization of Services

Many Emergency Medical Service (EMS) providers discussed a heavy reliance on 911 and EMS for non-medical emergencies.

EMS providers indicated that many individuals would call 911 because they wanted to talk to someone due to feelings of isolation. At times individuals experiencing homelessness would call 911 services indicating suicidal ideation so that they could be transported to the hospital for a warm meal and housing. These services were also used by the elderly to be transported out of their homes due to mobility limitations preventing them from being able to leave the house without assistance. For the elderly, most of these calls occurred during off hours when their care nurse or aid was no longer in the home or the individual was back at their home after day care with no one there to help them with basic needs (i.e. showering, getting dressed, cooking, cleaning, etc.).

Behavioral Health

Behavioral health needs were mentioned frequently in the community survey responses and were mentioned during every key informant interview and community conversation. Discussions surrounding behavioral health focused on a lack of accessible mental health services, burnout and stress, substance use and abuse, and stigma around seeking out needed services.

Community members indicated a significant need for behavioral health services in their community. There were concerns voiced about the number of quality service providers and an inadequate number

of beds in hospital settings to address mental health and substance abuse needs. Among the limited providers in the area, there are often long waitlists to receive care or services. Some specified that there was a *"lack of access to affordable mental health services"* and one individual also highlighted the need for, *"more affordable therapists of color."* For those with insurance coverage, co-pays and out of pockets costs were cited as a barrier, as were the number or duration of services that would be covered. For those without insurance, self-pay costs were cited as a significant barrier. These concerns were also often compounded with the stigma that still surrounds accessing behavioral health services.

An emerging area of need that was mentioned was for behavioral health services for children and youth. Stress, anxiety, and bullying were just some of the areas mentioned that are affecting children and coming on at younger ages.

Burnout and stress were noted for emergency service providers including police, paramedics, counselors, and crisis center workers. Even though these individuals provide services for others, they often have little support for themselves around the demands and stresses of their jobs. Some community members thought it would be beneficial to have therapists on staff for first responders to get support.

Substance use and abuse issues were discussed within the community with mention of alcohol, marijuana, opioids, and improper prescription medication usage as being prevalent. Marijuana was stated by some to be a gateway to higher level drugs, especially among those under 20 years of age. Alcoholism was also noted as being prevalent among community members. There were views that drug users were also overly reliant on Narcan where one individual linked it to being a "DD" or designated driver when it came to drug use.

Physical Health

Discussions surrounding physical health were focused around chronic disease, obesity, weight loss and sexual health.

Desires for guidance and assistance for weight loss were discussed by many participants. Two individuals discussed the value of fitness trackers to help with their weight loss with one individual highlighting how this would help them independently work on their weight loss goals, "*I wish I could get a Fitbit at no cost, for at least some period of time, so that I could track some of my personal fitness markers*" while the other indicated that they wished a Fitbit could be used by his healthcare provider to track his physical achievements virtually.

For those that wanted to engage in more physical activity they discussed how having childcare for parents who go to the gym at community centers would be extremely helpful. Also, that if the community hosted exercise challenges such as local 5K or running events, it would encourage

community members to engage more in physical activity. These types of activities were believed to help combat obesity, especially for children.

Others also discussed how their community needed additional sexual health services. Most prominent were discussions surrounding needing STI screening services and additional women's health resources.

Growing Senior Populations

With the senior population rapidly growing, many community members mentioned the need for more services for this population, particularly around home care and transportation.

For older adults it was indicated that there was a need for care throughout the day including after normal business hours (evenings and weekends) for those that attend day care centers as well as those with in-home care. Seniors may be financially strained or on a fixed income and therefore unable to afford additional assistance, or their insurance (or lack of insurance) does not cover sufficient in-home assistance.

> *"More services [are needed] to assist seniors and disabled persons with handling day to day life."*

Others indicated that the lived reality for these individuals includes feelings of isolation because of physical limitations not allowing them to leave their house freely. Many seniors don't have a family member (or adult child) that lives in the area because they often relocate as adults which may lead this population to feel that they have no support system. Some voiced that having the support from an animal as company may help with these feelings, but that many condos and apartments in the area don't always allow for it. Some voiced the need for more group activities and programming, there "*really needs to be something for the in between - 50's and 60's.*"

Community Engagement

A lack of community involvement and sense of community was often mentioned.

Many community members indicated that it was difficult to interact frequently and naturally with their neighbors. Many desired the notion of their community "*to become neighbors again*" which could be encouraged through community activities or events such as block parties, neighborhood walking clubs, outdoor games during the summer, and other ways to socialize and meet other community members. Others discussed that even when there are community events in their neighborhood, they often can't attend due to time and day of events, transportation issues, and inability to receive information.

> *"People are so stressed and busy, there's more tendency to go home after work & just stay there."*

Housing

Many community members commented on the high cost of living, lack of affordable housing, and prevalence of homelessness.

Community members discussed the need for more affordable housing options including both rentals and homeownership. Efforts to increase affordable housing were thought to be able to reduce homelessness in their communities. Also, an increased availability of affordable housing near metro and town centers would allow for those employed to reduce their commute time to work.

> *"The extremely high cost of living in this area greatly reduces the availability of affordable housing for low/moderate income families and seniors."*

Employment and the Job Market

Specific needs surrounding job security and the job market were centered around challenges for those over age 55 to acquire a job, a lack of job availability for those with high level degrees, and barriers to obtaining unemployment benefits.

Community members 55 and over felt that many employers would turn them away from a potential position due to their age. Veterans, undocumented individuals, and individuals that were previously incarcerated were also noted as having unique difficulties to entering the workforce.

Additional discussions centered on needing a more diverse pool of local jobs including those that do not require a degree or trained skillset, as well as those that would allow individuals to utilize their higher-level degrees. This is a unique region with high proportions of residents earning a post-graduate degree, however, there are not enough jobs available locally for these individuals. This often leads to feelings of stress, defeat and low self-confidence surrounding entering the job market. Those that have worked in job centers have noted that these individuals tend to not come to job centers for assistance and often have a difficult time presenting themselves to employers as they may seem desperate or overqualified for available positions due to their multiple or advanced degrees. The negative effects of unemployment on mental health were also discussed for lower-income individuals, particularly those who have families and children.

There were also concerns raised surrounding the ease of acquiring unemployment. There were suggestions made for a mandatory program for individuals who are unemployed to acquire information on job opportunities at the same location that unemployment is offered.

Prejudice, Discrimination and Racism

There is a distrust of the health care and school systems for certain populations such as undocumented individuals, people of color and LGBTQ individuals.

Due to historic injustices and inequities that persist to this day, as well as the current political climate, certain populations are fearful, guarded, distrustful, and feel threatened and unsafe. These feelings stem from beliefs of *"intolerance of people of different faiths, ethnicities and sexuality"* which is why community members wanted more *"culturally sensitive health care."* These feelings led one individual to state that, *"the hospital is a place to go to die, rather than live."* Others highlighted they were concerned that they will get experimented on, that undocumented individuals will be reported to immigration services, healthcare workers do not want to help you get better, and providers have slow response times to provide care to minority populations.

Within the school environment community members recommended there to be LGBTQ liaisons at different locations where anxiety may arise when students may need to disclose their sexual orientation. It was also stated that additional education and resources are needed throughout the community to avoid biases at healthcare centers, counseling centers, and career centers.

Strengths and Resources in the Community

There is a vast number of organizations working to improve the health and wellbeing of the community. Organizations are constantly collaborating and adapting to share resources and meet the needs of the community. Community members value many resources available to them including community centers, parks and recreation areas, faith communities, and walking and hiking trails.

Community members often cited community centers, parks and recreation areas, and walking or hiking trails as valued resources in the community. It was discussed that the recreation department runs a lot of programs, "*but they cost money and don't fit with a working schedule with a long commute."* Many also valued the healthy grocery stores, fitness centers and gyms, and hospitals or community clinics, but wanted more or larger ones in their community. *"Some hospitals offer classes but not at a time when the participants that need it most can participate."* The other valued services were senior centers, public transportation, houses of worship, food banks, libraries, school services, and safe/well maintained parks.

Section IV: Findings

Part B: Secondary Data

Chapter 1: General Rehabilitation

General Rehabilitation

KEY FINDINGS

Disparities & Indicators

- The majority of **general rehabilitation** patients at Adventist HealthCare Rehabilitation Hospital are **White males**
- **Women** are two times more likely to develop **Multiple Sclerosis** compared to men
- More **women** than men have **primary knee and hip replacements** across the United States

Trend Over Time

- MD had an increasing trend of Parkinson's Disease mortality from 2014-2017

Community Perception[1]

"Metro Access is very hard to get into, have to go to DC in order to take the test to see if you qualify, there is also a long waitlist."

There was awareness in the community that there should be, *"more services to assist seniors and disabled persons with handling day to day life."*

[1] Adventist HealthCare. (2019). Community Health Needs Assessment Primary Data Survey.

General Rehabilitation

Overview

Physical medicine and rehabilitation is a field of medicine involved in the prevention, diagnosis, treatment, and management of disabling musculoskeletal, neuromuscular or neurological diseases, disorders and injuries. Physical therapy addresses issues such as joint pains, mobility issues, vascular conditions, and age-related disabilities. Physical rehabilitation services are used by people of all ages, ranging from children to seniors. The following sections cover specific types of orthopedic and neurological rehabilitation.

Orthopedic Rehabilitation

Joint Replacement

- Joint replacements, also known as joint arthroplasty, are common surgeries in the United States of America. The most common types of joint replacement surgeries are primary and revision hip and knee.
- There were 1,525,435 joint replacement procedures performed between 2012 and 2018, with primary total hip and knee accounting for 88.2 percent (Figure 1).

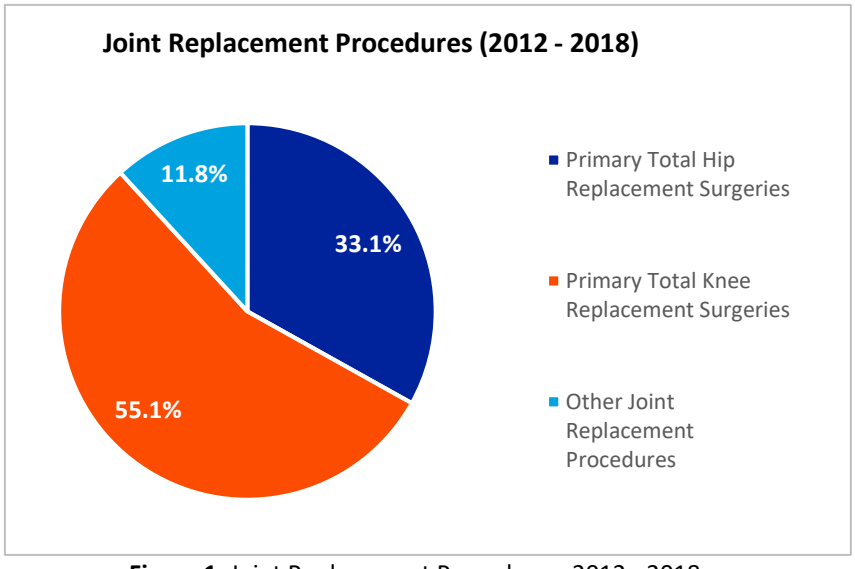


Figure 1. Joint Replacement Procedures, 2012 - 2018
(Source: American Joint Replacement Registry Annual Report, 2019)

- Overall, the prevalence of joint replacement is higher among women than men. More than 50.0 percent of patients <59 years of age undergoing elective primary total hip arthroplasty were male. After the age of 60, females predominate and this trend increases with each additional decade of life (Figure 2).
- For patients undergoing total knee, women account for the majority across all age groups (Figure 3).

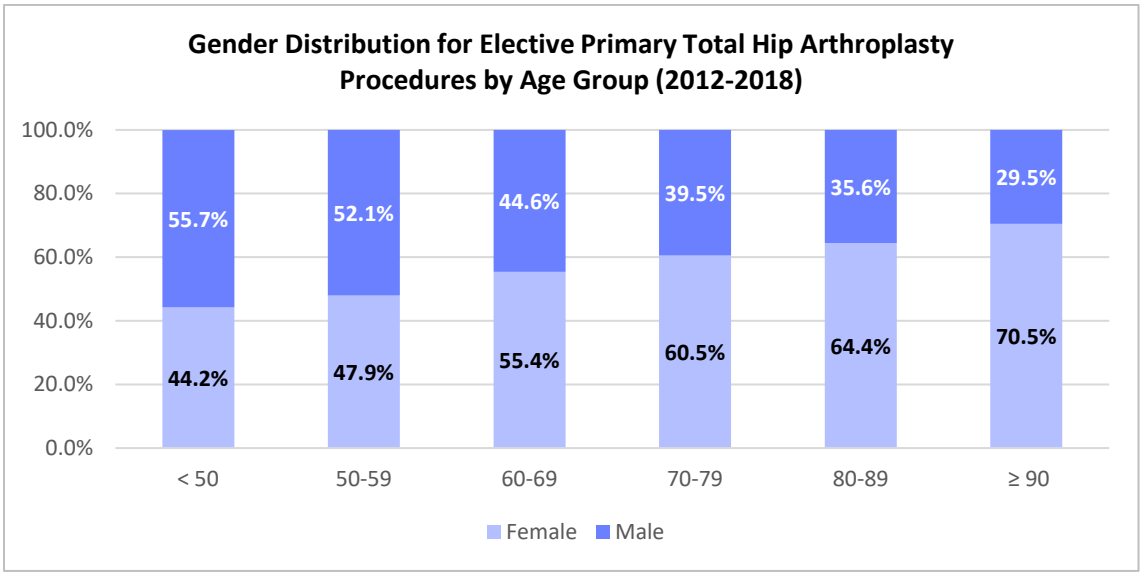


Figure 2. Gender Distribution for Elective Primary Total Hip Arthroplasty Procedures by Age Group, 2012-2018
(Source: American Joint Replacement Registry Annual Report, 2019)

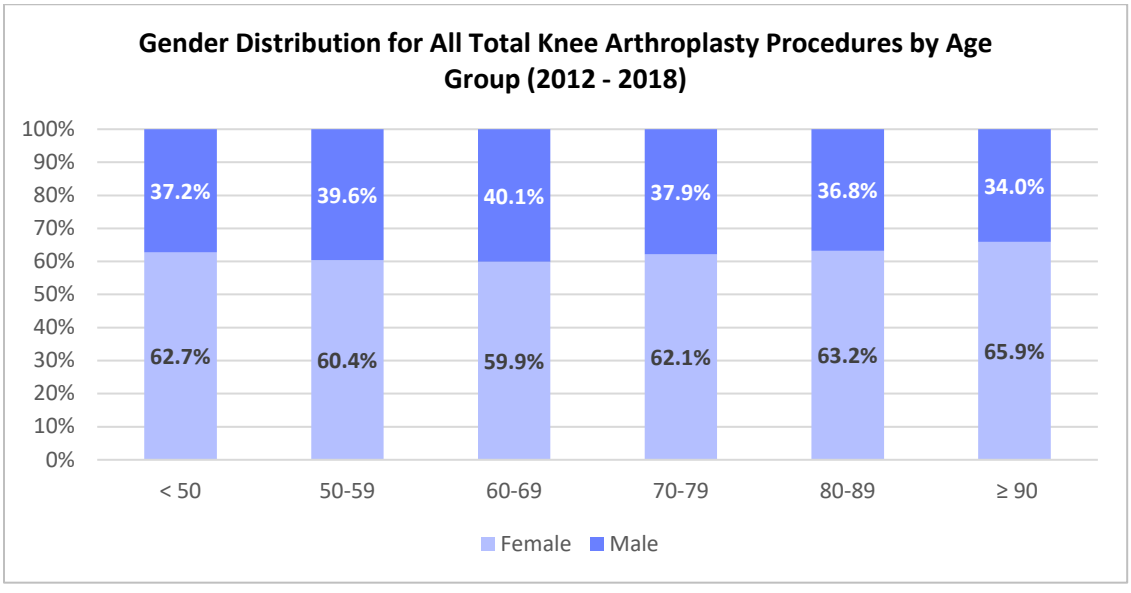


Figure 3. Gender Distribution for All Total Knee Arthroplasty Procedures by Age Group, 2012-2018
(Source: American Joint Replacement Registry Annual Report, 2019)

Hospital Data

- In 2018, Adventist HealthCare Rehabilitation Hospital served 381 orthopedic patients. The patients were majority female (Figure 4) and had an average age of 69 years.
- When stratified by race and ethnicity, there were 3X more White patients than African-American, which is the second largest group of patients (Figure 5).

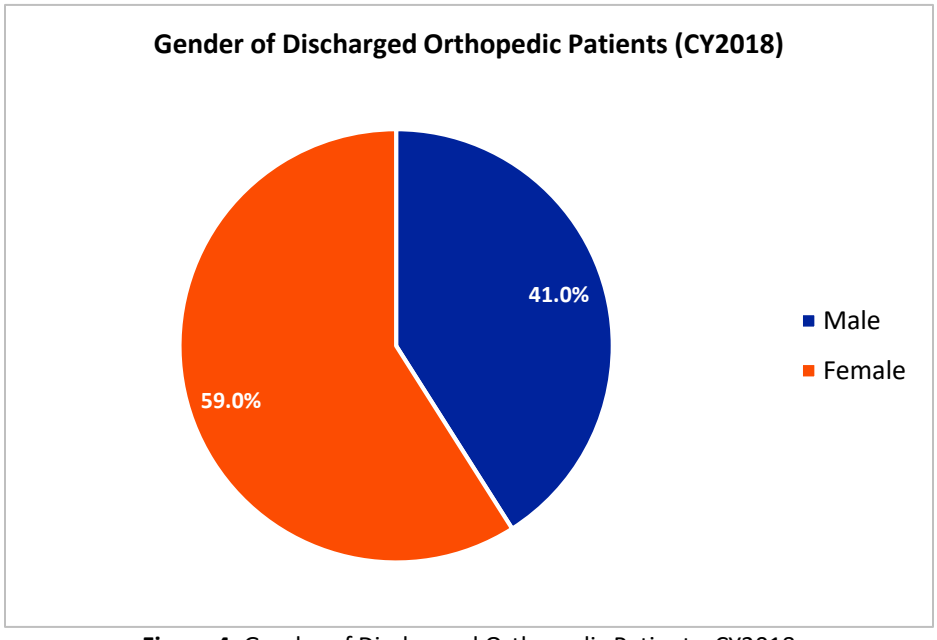


Figure 4. Gender of Discharged Orthopedic Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

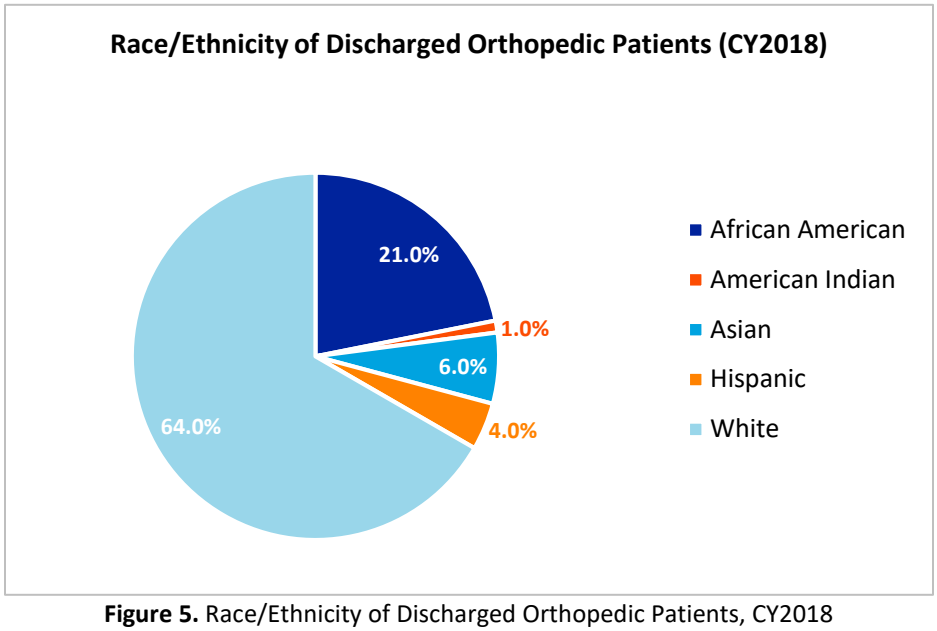


Figure 5. Race/Ethnicity of Discharged Orthopedic Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

Neurological Rehabilitation

Aphasia

Aphasia is an acquired communication disorder that impairs an individual's ability to speak and understand others, with a majority experiencing difficulty reading and writing. According to the National Aphasia Association, nearly two million Americans have aphasia, with an average of 180,000 people developing it annually. Aphasia results from damage to the left hemisphere of the brain and is most commonly caused by stroke. About 25 – 40.0 percent of stroke survivors develop aphasia.[2] In terms of gender, there are no significant differences in incidence rates. However, the severity and type of aphasia acquired may be different between the two genders. While aphasia affects people of all ages, races, nationalities, and gender, it is more common among older adults. Research shows that 15.0 percent of people under the age of 65 experience aphasia compared to 43.0 percent of people over the age of 85.[3]

Parkinson's Disease

There are approximately one million people living with Parkinson's disease (PD) in the United States. Around 60,000 Americans are diagnosed with PD every year, not including the cases that go undetected. The likelihood of developing PD increases with age, with about 4.0 percent of patients being diagnosed before age 50. Men are more at risk than women of developing PD.[4]

Research has also shown significant racial disparities among individuals with Parkinson's disease. When stratified by race and ethnicity, African-Americans suffering from PD are less likely to receive early treatment, therapeutic surgery, depression treatment, etc.[5] Compared to White patients, African-Americans are less likely to receive care from a neurologist, which may lead to other disparities in treatment. It has also been found that African-Americans have lower health literacy regarding PD diagnosis and treatment.

Maryland had an increasing trend of Parkinson's Disease mortality for 2014 – 2017 (Figure 6).

[2] National Aphasia Association (2015). Aphasia FAQs. Retrieved from http://www.aphasia.org/aphasia-faqs/
[3] American Speech-Language-Hearing Association (2016). Aphasia: Incidence and prevalence. Retrieved from http://www.asha.org/PRPSpecificTopic.aspx?folderid=8589934663&section=Incidence_and_Prevalence
[4] Parkinson's Foundation (2019). Understanding Parkinson's: Statistics. Retrieved from https://www.parkinson.org/Understanding-Parkinsons/Statistics
[5] Dahodwala, N. (2013). What is known about racial disparities in Parkinson's disease diagnosis and treatment? Neurodegenerative Disease Management, 3(6). Retrieved from http://www.futuremedicine.com/doi/pdf/10.2217/nmt.13.62

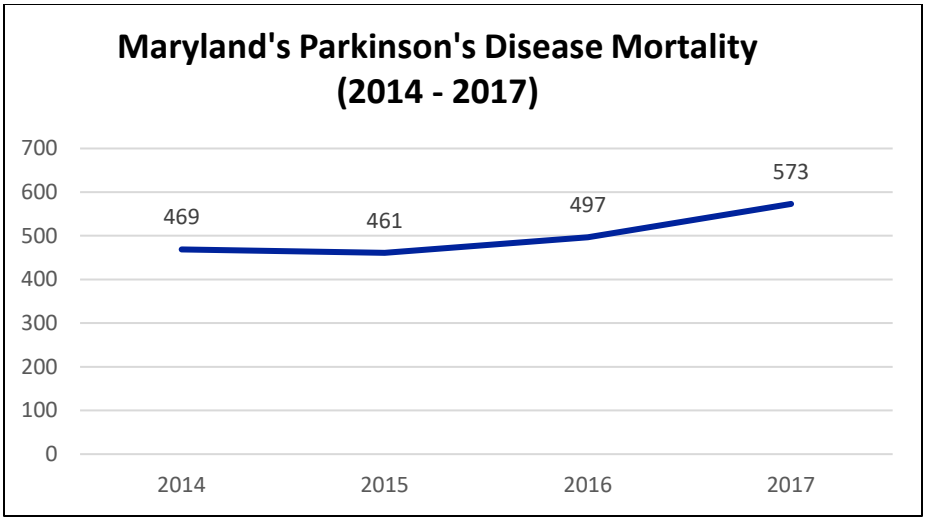


Figure 6. Maryland's Parkinson's Disease Mortality Rate, 2014 – 2017
(Source: Centers for Disease Control and Prevention, 2019)

Multiple Sclerosis

Multiple sclerosis (MS) is an unpredictable disease affecting the central nervous system and disrupting the flow of information in the brain as well as between the brain and body. Symptoms of MS include, but are not limited to blurred vision, loss of balance, poor coordination, and paralysis. An estimated 400,000 people in the United States are living with MS and more than 200 people are diagnosed every week. Most diagnoses of MS have been between the ages of 20 and 50, with women being two times more likely to be diagnosed.[6,7]

Dysphagia

Dysphagia is a difficulty swallowing or in some cases, the inability to swallow and may be associated with pain.[8] While dysphagia is more common among older adults, about one in 25 adults in the United States has trouble swallowing. There is also a high prevalence of dysphagia among children with physical disabilities and developmental disorders.[9,10] Studies have also shown that dysphagia has a high prevalence among people who have suffered from stroke, traumatic brain injury, dementia, Parkinson's, Huntington's, multiple sclerosis, and other neurological diseases.[11] Based on the type and

[6] National Multiple Sclerosis Society (n.d.). What is MS? Retrieved from http://www.nationalmssociety.org/What-is-MS
[7] Hersh, C.M. (2014). Multiple sclerosis. Cleveland Clinic Center for Continuing Education. Retrieved from: http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/neurology/multiple_sclerosis/
[8] May Clinic (n.d.). Dysphagia. Retrieved from http://www.mayoclinic.org/diseases-conditions/dysphagia/basics/definition/con20033444
[9] 1 American Speech-Language-Hearing Association (n.d.). Adult dysphagia. Retrieved from http://www.asha.org/PRPSpecificTopic.aspx?folderid=8589942550&section=Incidence_and_Prevalence
[10] American Speech-Language-Hearing Association (n.d.). Pediatric dysphagia. Retrieved from http://www.asha.org/Practice-Portal/Clinical-Topics/Pediatric-Dysphagia/
[11] Goyal, R., Shaker, R. (2006). Neurological disorders affecting oral, pharyngeal swallowing. Retrieved from http://www.nature.com/gimo/contents/pt1/full/gimo34.html

severity of dysphagia, various treatments can provide relief. One such treatment is exercising certain swallowing muscles to trigger the swallowing reflex.

Hospital Data

- In 2018, Adventist HealthCare Rehabilitation Hospital served 144 patients with neurological rehabilitation. The average age for the patients was 61 years and they were majority female (Figure 7).
- The majority of the neurological rehabilitation patients were White (Figure 8).

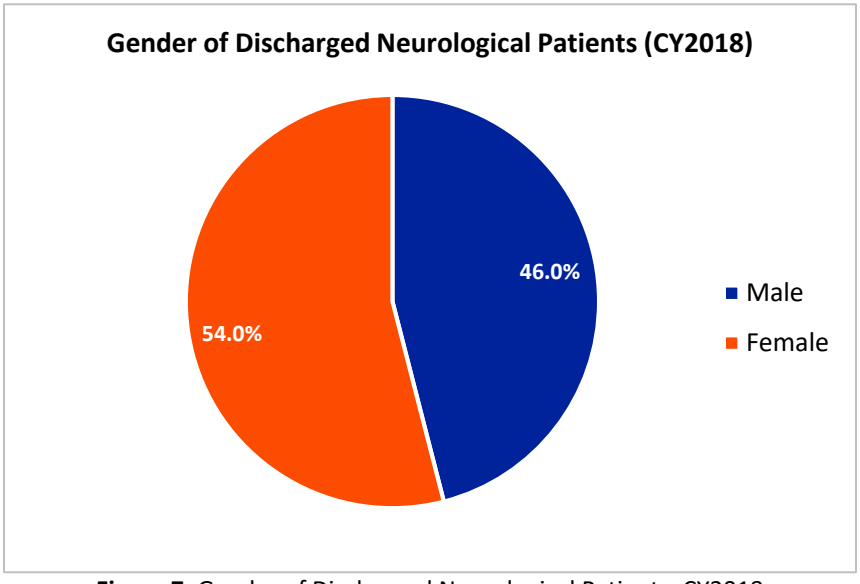


Figure 7. Gender of Discharged Neurological Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

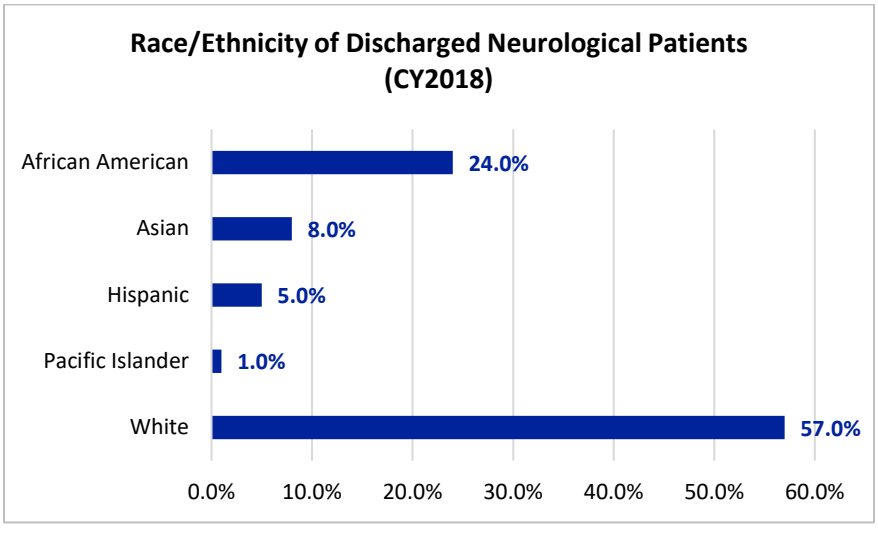


Figure 8. Race/Ethnicity of Discharged Neurological Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

General/Medical Rehabilitation

- In its general/medical rehabilitation program, Adventist HealthCare Rehabilitation Hospital served 357 patients with an average age of 73 years. The majority of the patients were male (Figure 9) and White (Figure 10).

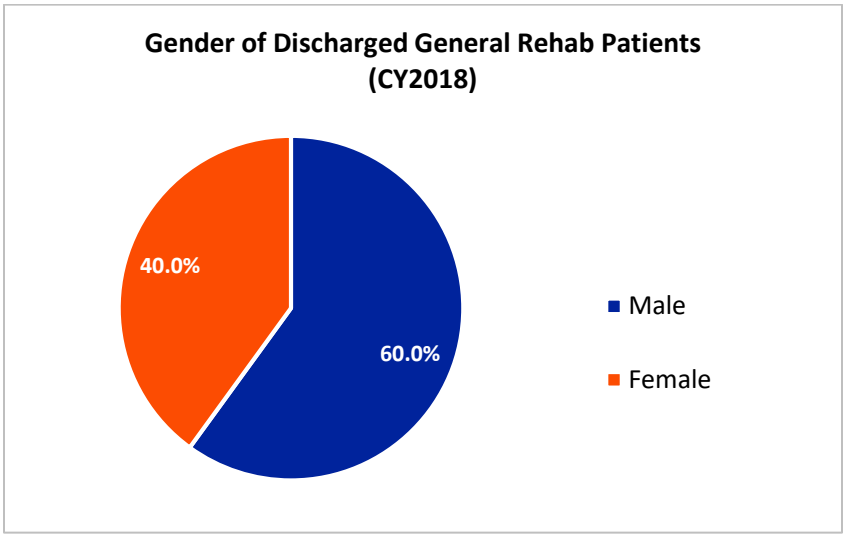


Figure 9. Gender of Discharged General Rehab Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

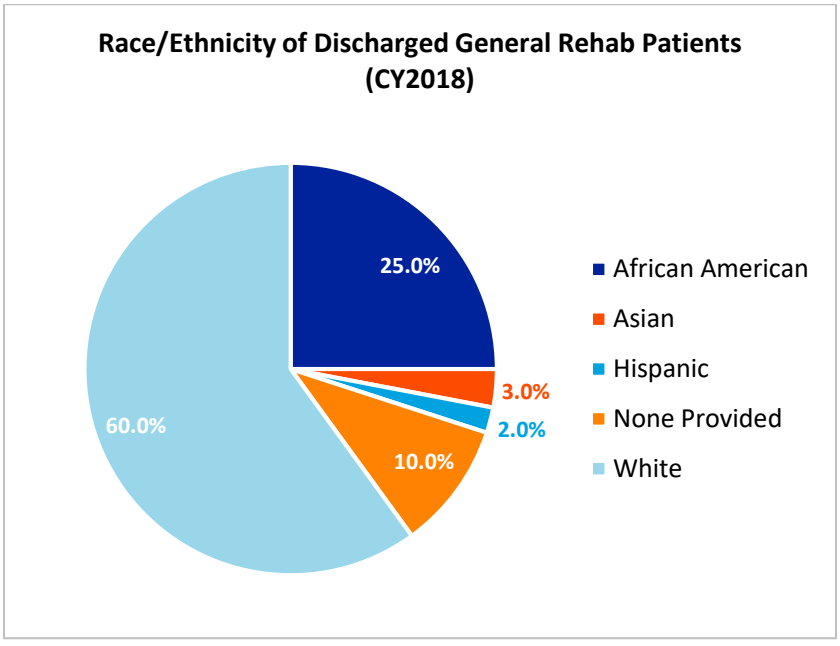


Figure 10. Race/Ethnicity of Discharged General Rehab Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

Community Resources

Adventist HealthCare Rehabilitation Hospital provides several therapies, treatment, and support services for those who require general physical rehabilitation services. Adventist HealthCare Rehabilitation Hospital and other local services in the Montgomery County and Prince George's County areas include:

1. **ADVENTIST HEALTHCARE - REHABILITATION SERVICES**
   For free support groups and available community resources call or visit:
   Phone: 1-800-542-5096
   Website: Adventist HealthCare Classes & Events

2. **MIRACLE 4 MELANIE**
   Is to honor our injured service men and women, wounded during OEF, OIF, and OND, by providing them with supplemental resources to aid in their day-to-day recovery and improve their daily morale.
   Website: http://miracle4melanie.org/

3. **AMPUTEE COALITION**
   Website: https://www.amputee-coalition.org/

4. **DISABILITY PARTNERSHIPS**
   Website:
   http://www.disabilitypartnerships.org/

5. **AMERICAN SPEECH – LANGUAGE – HEARING ASSOCIATION**
   Aphasia Resources
   Website:
   https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589934663&section=Resources
   Adult Dysphagia Resources
   Website:
   https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589942550&section=Resources

6. **AMERICAN PARKINSON DISEASE ASSOCIATION**
   Maryland Chapter
   Address: 110 S Paca Street, 3rd Floor, Baltimore, MD 21201
   Phone: 410-328-3333
   Website:
   https://www.apdaparkinson.org/community/maryland/

7. **RIGHT AT HOME – PARKINSON'S DISEASE CARE**
   Address: 11821 Parklawn Drive, Suite 302, Rockville, MD 20852
   Phone: 301-255-0066
   Website:
   https://www.rightathome.net/rockville-maryland/special-care-situations/parkinsons-disease

8. **COMFORT HOME CARE - PARKINSON'S DISEASE IN-HOME CARE**
   Address: 121 Congressional Lane, Suite 201 Rockville, MD 20852
   Phone: 301-245-1941
   Website:
   https://www.choosecomforthome.com/in-home-care/parkinsons-disease/

9. **NATIONAL MULTIPLE SCLEROSIS SOCIETY**
   Greater DC – Maryland
   Address: 1800 M Street Northwest, Suite B50 North, Washington, DC 20036
   Phone: 202-296-5363
   Website: https://www.nationalmssociety.org/Chapters/MDM

10. **FOOD & FRIENDS**
    Address: The William P. Bresler Building, 219 Riggs Road NE, Washington, DC 20011
    Phone: 202-269-2277
    Email: info@foodandfriends.org
    Website: https://foodandfriends.org/

11. **MONTGOMERY COUNTY STROKE ASSOCIATION**
    Phone: 301-681-6272
    Email: info@mcstroke.org
    Website: https://www.mcstroke.org/

12. **STROKE COMEBACK CENTER**
    Phone: 301-605-7620
    Email: info@strokecomebackcenter.org
    Website: https://strokecomebackcenter.org/

Section IV: Findings

Part B:
Secondary Data

Chapter 2: Traumatic Brain Injury (TBI)



Traumatic Brain Injury

KEY FINDINGS

Disparities & Indicators	Trend Over Time
• In MD, most common cause of **TBI related deaths** is by **firearm** (279 deaths) followed by **unintentional falls** (278 deaths) • In MD, the highest rate of **TBI related ED visits** were among **ages 15-24** followed by ages 5-14 • **NH-Whites** were more likely (67%) to experience TBI at time of injury in 2017 in the Nation	• MD TBI related deaths and hospitalizations decreased • MD had an increasing trend of TBI related ED visits

Traumatic Brain Injury

Impact

According to the Centers for Disease Control and Prevention (CDC), a traumatic brain injury (TBI) is "a disruption in the normal function of the brain that can be caused by a bump, blow, or jolt to the head, or penetrating head injury." It is one of the leading causes of death and disability in the United States. Traumatic brain injuries are categorized into mild, moderate, or severe. Brains are unique so everyone experiences brain injuries differently. Injuries can range from a brief change in mental status or consciousness to an extended period of unconsciousness or memory loss after the injury. Symptoms may include, but are not limited to: difficulty with memory, attention, learning, or coordination; headaches; fatigue; and sleep disturbances. Most TBIs are concussions, which fall into the mild category. Common sources of traumatic brain injury are falls, vehicle related collisions, violence (i.e. gunshot wounds, domestic violence, child abuse), sports injuries, and combat related injuries. [1,2]

Prevalence

- The Traumatic Brain Injury Model Systems National Database, which tracks a sample of TBI patients in the United States, has found that males accounted for 73.6 percent of TBI cases as of June 2019 and the average age at the time of injury was 42.12 years (Figure 1).
- When stratified by race and ethnicity, the majority of TBI cases were among the White population (Figure 2).
- Half of the brain injuries in the database were caused by vehicular crashes, followed by falls, violent acts and other (Figure 3).[3]

[1] Centers for Disease Control and Prevention. (2019) https://www.cdc.gov/traumaticbraininjury/index.html
[2] Maryland Traumatic Brain Injury Advisory Board 2018 Annual Report. Retrieved from https://bha.health.maryland.gov/Documents/2018%20TBI%20Advisory%20Board%20Annual%20Report%20(1).pdf
[3] National Data and Statistical Center: Traumatic Brain Injury Model Systems (2019). *National Database: 2019 Profile of People within the Traumatic Brain Injury Model Systems.* Retrieved from https://www.tbindsc.org/StaticFiles/Presentations/2019%20TBIMS%20National%20Database%20Update.pdf

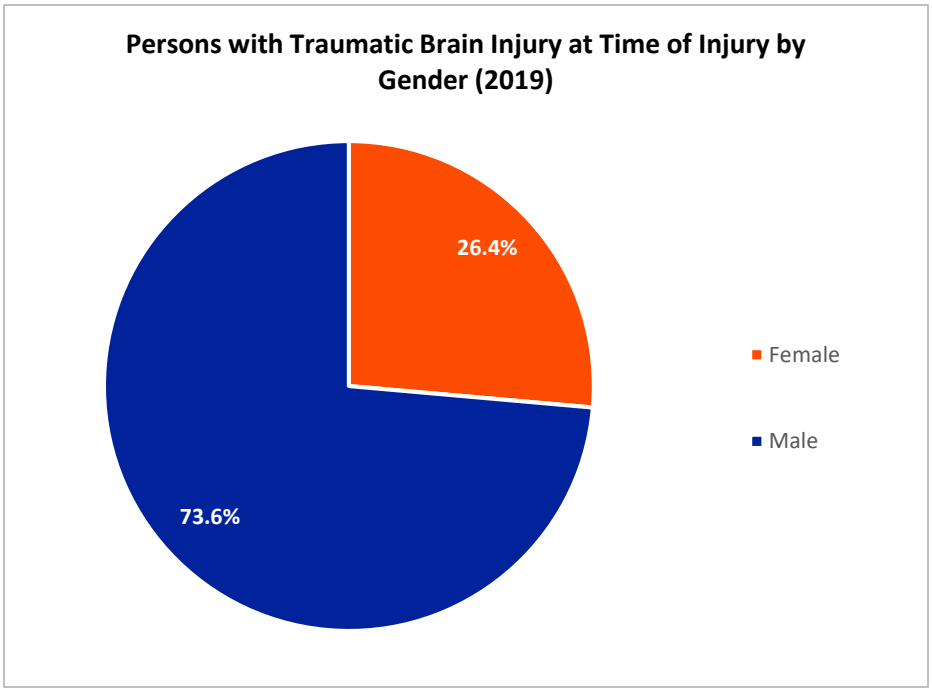


Figure 1. Persons with Traumatic Brain Injury at Time of Injury by Gender, 2019
(Source: National Database: 2019 Profile of People within the Traumatic Brain Injury Model Systems)

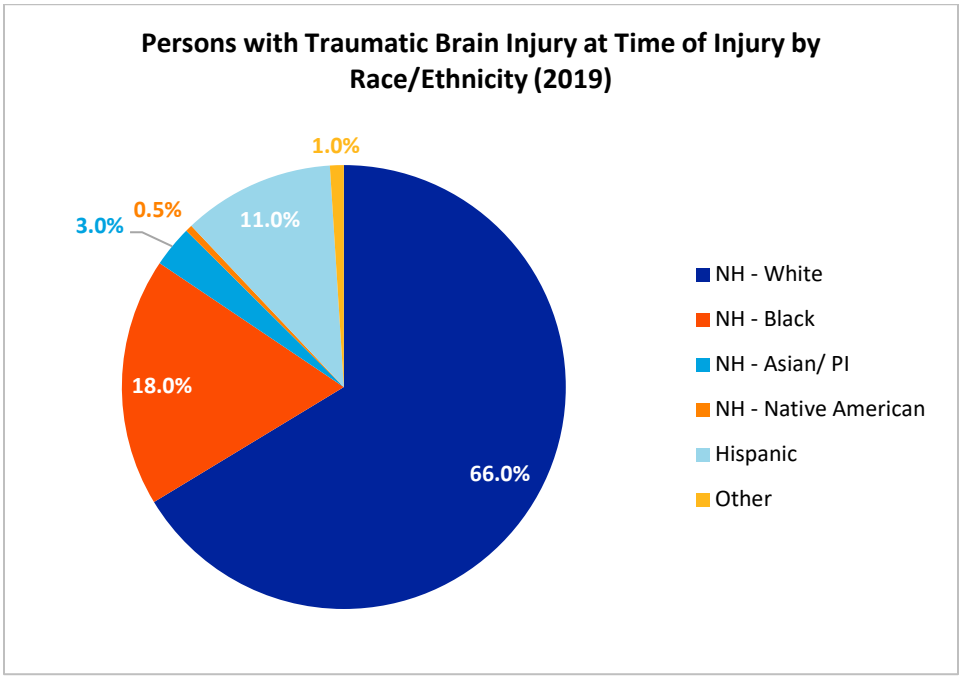


Figure 2. Persons with Traumatic Brain Injury at Time of Injury by Race/Ethnicity, 2019
(Source: National Database: 2019 Profile of People within the Traumatic Brain Injury Model Systems)

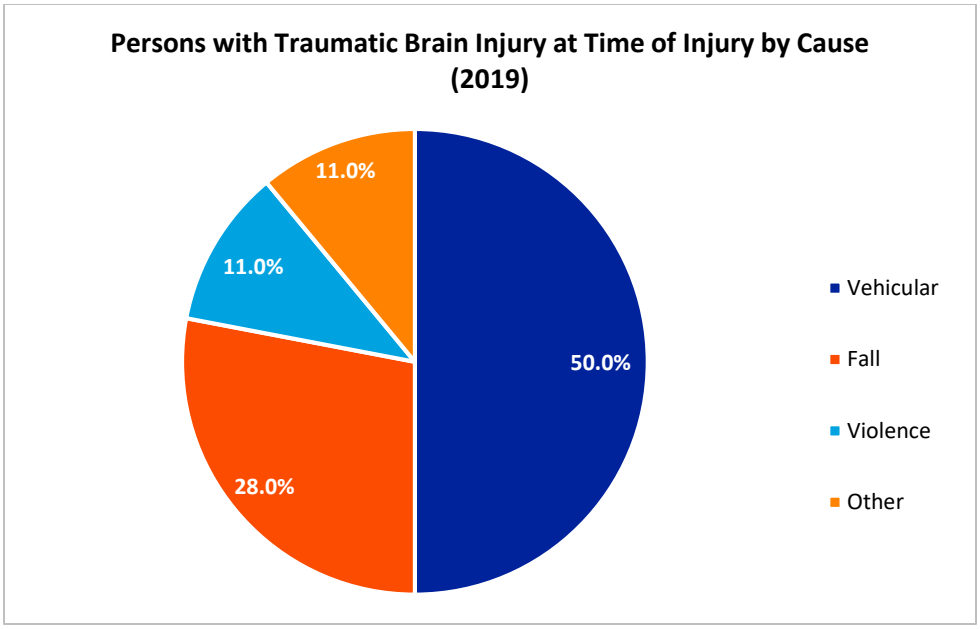


Figure 3. Persons with Traumatic Brain Injury at Time of Injury by Cause, 2019
(Source: National Database: 2019 Profile of People within the Traumatic Brain Injury Model Systems)

National Data

- Across the US, there has been an increase in emergency room visits and hospitalizations and a stabilization of deaths from 2011 – 2014 (Figure 4).

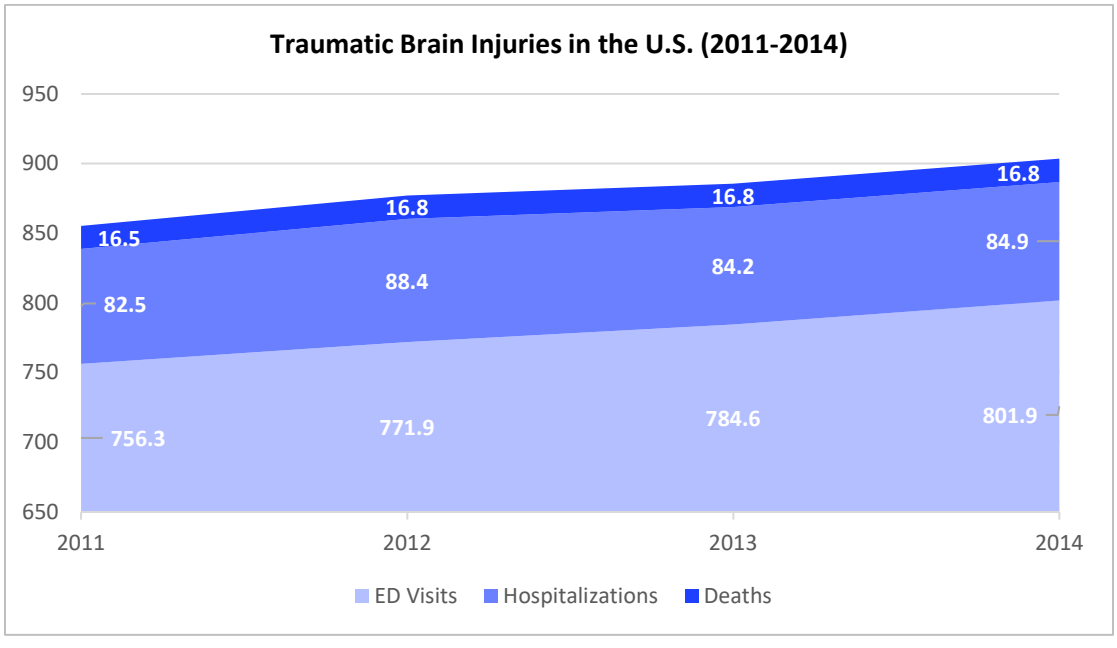


Figure 4. Traumatic Brain Injuries in the U.S., 2011-2014
(Source: Centers for Disease Control and Prevention, 2019)

State Data

- Between 2012 and 2015, there has been an overall decrease in TBI related deaths and hospitalizations and an increase in emergency department visits among Marylanders (Figure 5).
- In 2015, Seniors 65+ had the highest rates of TBI related deaths and hospitalizations.
- Residents aged 5 – 24 had the highest rate of TBI related ED visits.
- Unintentional falls are the leading cause of injury for TBI related deaths, ED visits, and hospitalizations.[4]

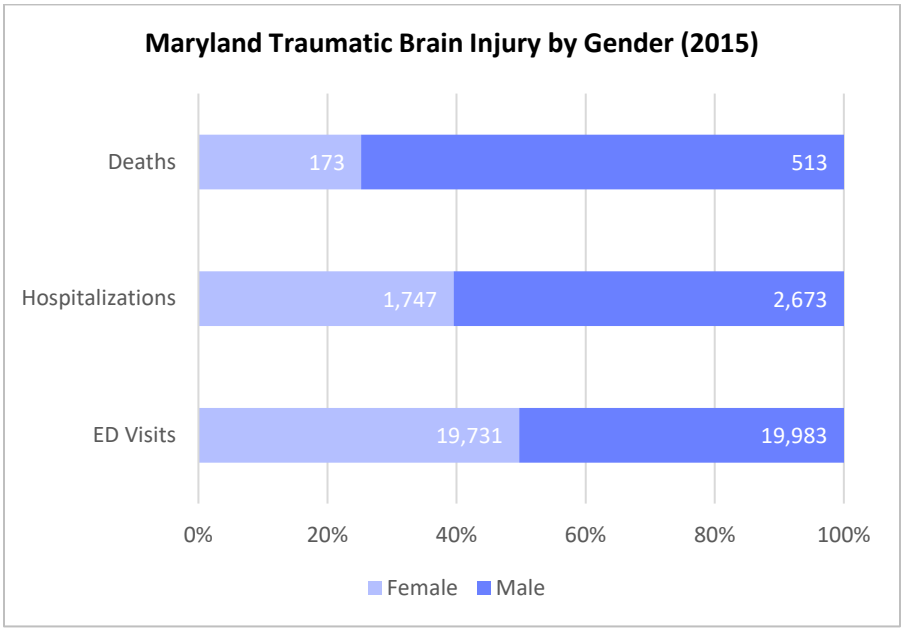


Figure 5. Maryland Traumatic Brain Injury by Gender, 2015
(Source: Maryland Traumatic Brain Injury 2017 Annual Report)

[4] Maryland Traumatic Brain Injury Advisory Board 2017 Annual Report. Retrieved from https://bha.health.maryland.gov/Documents/2017%20-%20TBI%20Advisory%20Board%20Annual%20Report%20(1).pdf

Hospital Data

- In 2018, AHC Rehabilitation served 98 TBI and 126 non-TBI patients. For both categories, males (Figure 6) and the White population (Figure 7) were the majority.
- For TBI, the average age was 70 and 65 for non-TBI (Figure 8).

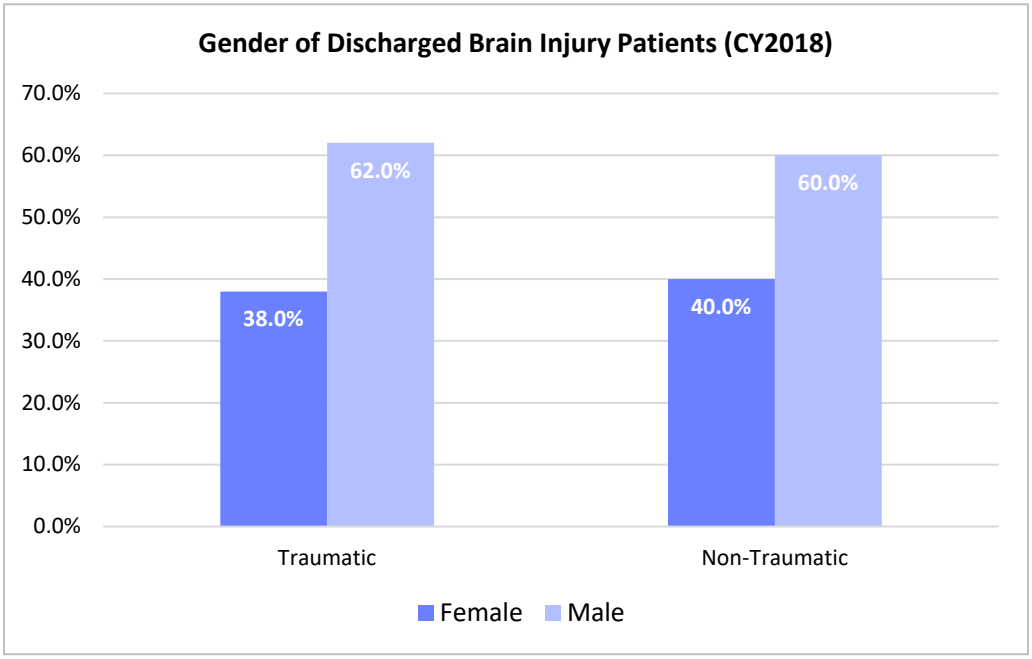


Figure 6. Gender of Discharged Brain Injury Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

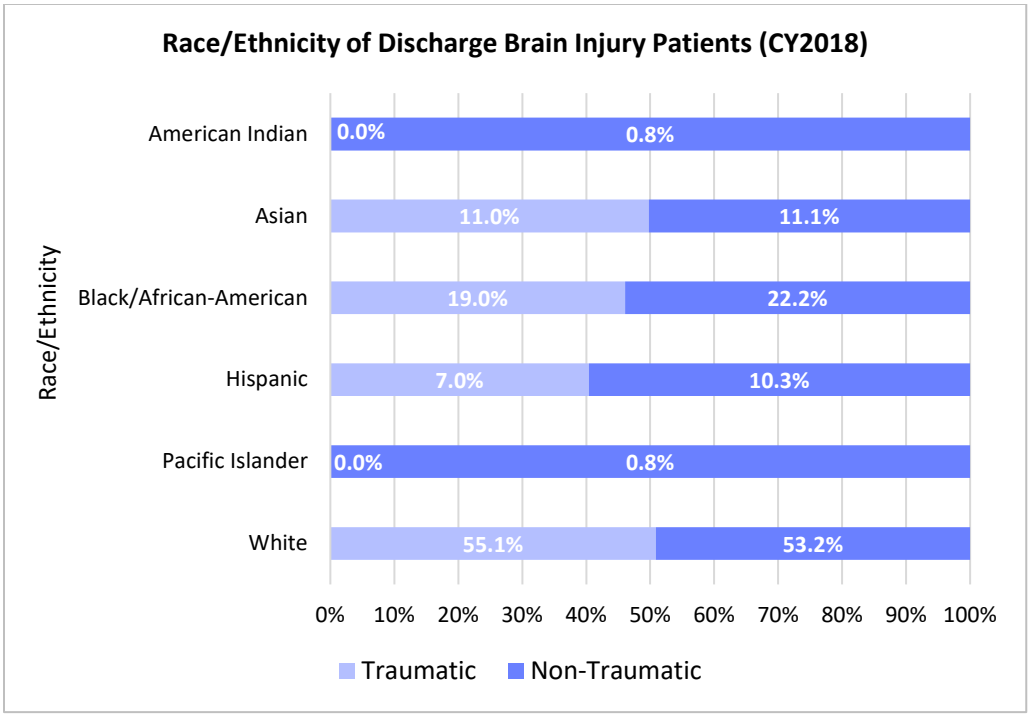


Figure 7. Race/Ethnicity of Discharged Brain Injury Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

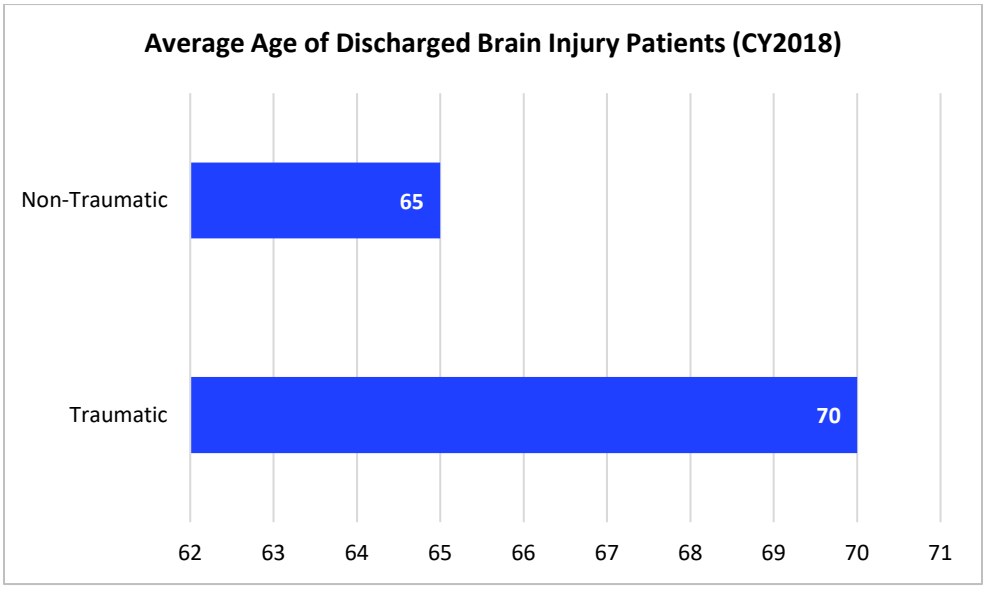


Figure 8. Average Age of Discharged Brain Injury Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

Spotlight on Concussion

A concussion is a mild traumatic brain injury that affects your brain function. Concussion symptoms include, but are not limited to, headaches, nausea or vomiting, dizziness, balance problems, blurred vision, trouble thinking, and abnormal sleep patterns.[5] Adventist HealthCare Rehabilitation Hospital offers a comprehensive concussion program where patients are evaluated and treated from a multidisciplinary perspective. Examples of physical therapy offered to patients with concussion are:

- Balance retraining
- Hand-eye coordination testing and training
- Sport-specific training
- Vestibular rehabilitation to relieve dizziness

Adventist HealthCare Rehabilitation Hospital works with Montgomery County Public Schools to offer baseline testing for high school student-athletes. The baseline testing measures the students' thinking skills, problem-solving skills, memorization skills, and ability to concentrate on tasks. If the student suffers from head trauma, the student is tested again to determine the impact of the head injury. These baseline tests are offered at various locations throughout the county.[6]

[5] Mayo Clinic. (2019). Concussion. Diseases and Conditions. Retrieved from https://www.mayoclinic.org/diseases-conditions/concussion/symptoms-causes/syc-20355594

[6] Adventist HealthCare (2019). Sports Injury Rehabilitation. Retrieved from https://www.adventisthealthcare.com/services/rehabilitation/sports-injury/

Community Resources

Adventist HealthCare Rehabilitation Hospital provides treatment and support for those who suffer from a traumatic brain injury. Adventist HealthCare Rehabilitation Hospital and other local services in the Montgomery and Prince George's County area include:

1. **ADVENTIST HEALTHCARE - REHABILITATION SERVICES**
   For free support groups and available community resources call or visit:
   Phone: 1-800-542-5096
   Website: Adventist HealthCare Classes & Events

2. **MIRACLE 4 MELANIE**
   Is to honor our injured service men and women, wounded during OEF, OIF, and OND, by providing them with supplemental resources to aid in their day-to-day recovery and improve their daily morale.
   Website: http://miracle4melanie.org/

3. **BRAIN INJURY ASSOCIATION OF MARYLAND**
   Phone: 1-800-221-6443

   Washington DC Area Resources
   Website:
   https://www.biamd.org/montgomerypgdc-area.html

4. **HEAD INJURY REHABILITATION & REFERRAL SERVICES**
   Address: 11 Taft Court, Suite 100, Rockville, MD 20850
   Phone: 301-309-2228
   Email: tbi@headinjuryrehab.org
   Website:
   http://www.headinjuryrehab.org/

5. **BRAIN INJURY ASSOCIATION OF WASHINGTON, D.C.**
   Address: 1232 Seventeenth Street, NW, Washington, DC 20036
   Phone: 202-659-0122
   Email: info@biadc.org
   Website: http://www.biadc.org/

   Support Group
   Address: National Rehabilitation Hospital, 102 Irving St, NW Washington, DC.
   Email: ellenwramsay@verizon.net

6. **THE JOHN "JACK" GODFREY TRAUMATIC BRAIN INJURY SUPPORT GROUP**
   Address: 2900 Mercy Lane, Cheverly, MD 20785 (On the Campus of UM Prince George's Hospital Center)
   Phone: 301-618-2160
   Website:
   https://www.umms.org/capital/health-services/trauma/john-jack-godfrey-traumatic-brain-injury-support-group

7. **INNOVATIVE SPEECH THERAPY**
   Address: One Research Court, Suite 450, Rockville, MD 20850
   Phone: 301-602-2899
   Email: joan@innovativespeech.com
   Website:
   https://innovativespeech.com/

8. **RIGHT AT HOME – TRAUMATIC BRAIN INJURY**
   Address: 11821 Parklawn Drive, Suite 302, Rockville, MD 20852
   Phone: 301-255-0066
   Website: https://www.rightathome.net/rockville-maryland/special-care-situations/traumatic-brain-injury

9. **MONTGOMERY COUNTY PUBLIC SCHOOLS – CONCUSSIONS, BASELINE TESTING, AND SUDDEN CARDIAC ARREST**
   Phone: 240-740-3000
   Spanish Hotline: 240-740-2845
   Email: ASKMCPS@mcpsmd.org
   Website: https://www.montgomeryschoolsmd.org/departments/athletics/health/concussions.aspx

10. **PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS – CONCUSSION – BASELINE TESTING – SUDDEN CARDIAC ARREST**
    Phone: 301-952-6000
    Website: https://www1.pgcps.org/page.aspx?Pageid=234147&id=245500

Section IV: Findings

Part B:
Secondary Data

Chapter 3: Spinal Cord Injury

Spinal Cord Injury

KEY FINDINGS

Disparities & Indicators

- As age at injury increases, life expectancy decreases across all spinal injuries
- **The most common cause of SCI** is **vehicular** (38.3%) followed by **falls** (31.6%) since 2015
- About 78% of **new SCI cases** are **males**
- Since 2015, **NH-Whites** have been more likely (60.6%) to experience spinal cord injuries

Community Perception

"Parks should be upgraded and be accessible for all ages and physical abilities"

Spinal Cord Injury

Impact

A spinal cord injury (SCI) is damage to any part of the spinal cord or nerves at the end of the spinal canal.[1] SCIs often cause permanent changes in strength, sensation, and other body functions below the site of injury. Injuries to the spinal cord usually do not sever it. The injury is more likely to cause fractures and compression of the vertebrae, which results in destruction of axons. A few, many, or almost all axons can be damaged. Some SCIs are treatable and will lead to complete recovery, while others lead to complete or incomplete paralysis.[2]

Prevalence

- According to the National Spinal Cord Injury Statistical Center, since 2015 there have been approximately 17,700 new SCI cases annually.
- Vehicular crashes remain the leading cause of SCIs followed by falls and violence (Figure 1). Younger individuals are the dominate group for vehicular crashes; people over 65 for falls.[3]
- The majority of SCI patients are white (Figure 2).
- The average age at the time of SCI injury is 43 years; males account for about 78.0 percent of new SCI cases.[4]

[1] Mayo Clinic (2019). Spinal cord injury. Retrieved from https://www.mayoclinic.org/diseases-conditions/spinal-cord-injury/symptoms-causes/syc-20377890
[2] National Institute of Neurological Disorders and Stroke (2019). Spinal Cord Injury Information Page. Retrieved from https://www.ninds.nih.gov/Disorders/All-Disorders/Spinal-Cord-Injury-Information-Page
[3] American Association of Neurological Surgeons (2019). Spinal Cord Injury. Retrieved from http://www.aans.org/patient%20information/conditions%20and%20treatments/spinal%20cord%20injury.aspx
[4] National Spinal Cord Injury Statistical Center (2018). Spinal Cord Injury Facts and Figures at a Glance. Retrieved from https://www.nscisc.uab.edu/Public/Facts%20and%20Figures%20-%202018.pdf

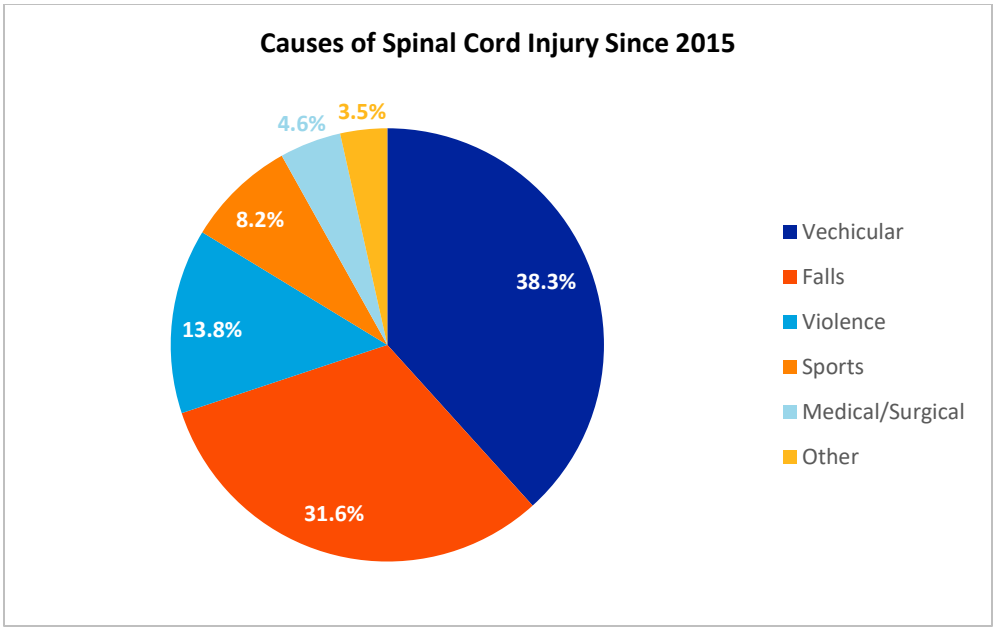


Figure 1. Causes of Spinal Cord Injury Since 2015
(Source: National Spinal Cord Injury Statistical Center, 2018)

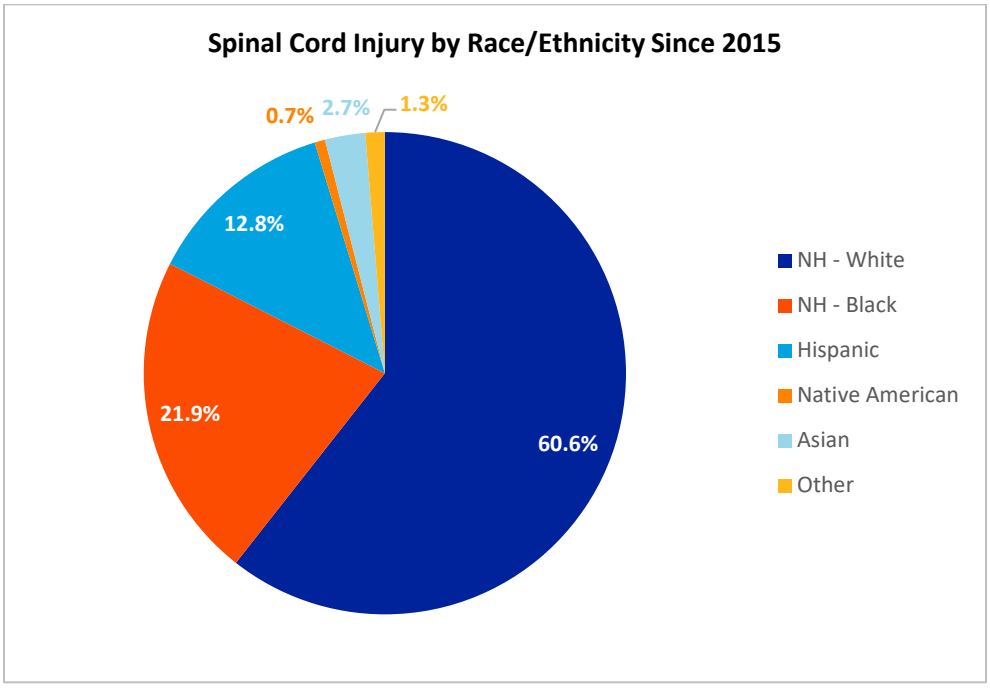


Figure 2. Spinal Cord Injury by Race/Ethnicity Since 2015
(Source: National Spinal Cord Injury Statistical Center, 2018)

There are three types of spinal cord injury: complete, incomplete, and penetrating.

- A complete SCI results in the patient not having any function on either side of the body below the level of injury; almost half of all SCI cases fall under this category.
- An incomplete SCI is when there is some function in the body below the location of injury.
- A penetrating SCI refers to open injuries to the spine that require the patient to be immobilized for a certain period of time until the fractured areas of the spine heal (for example, gunshots wounds to the back).[5]

Paralysis from a SCI may be classified as tetraplegia or paraplegia.

- Tetraplegia, also known as quadriplegia, means all four limbs and torso are affected.
- Paraplegia means the lower parts of the body and legs are affected.[6]
- Incomplete tetraplegia is the most common type of SCI since 2015 (Figure 3).

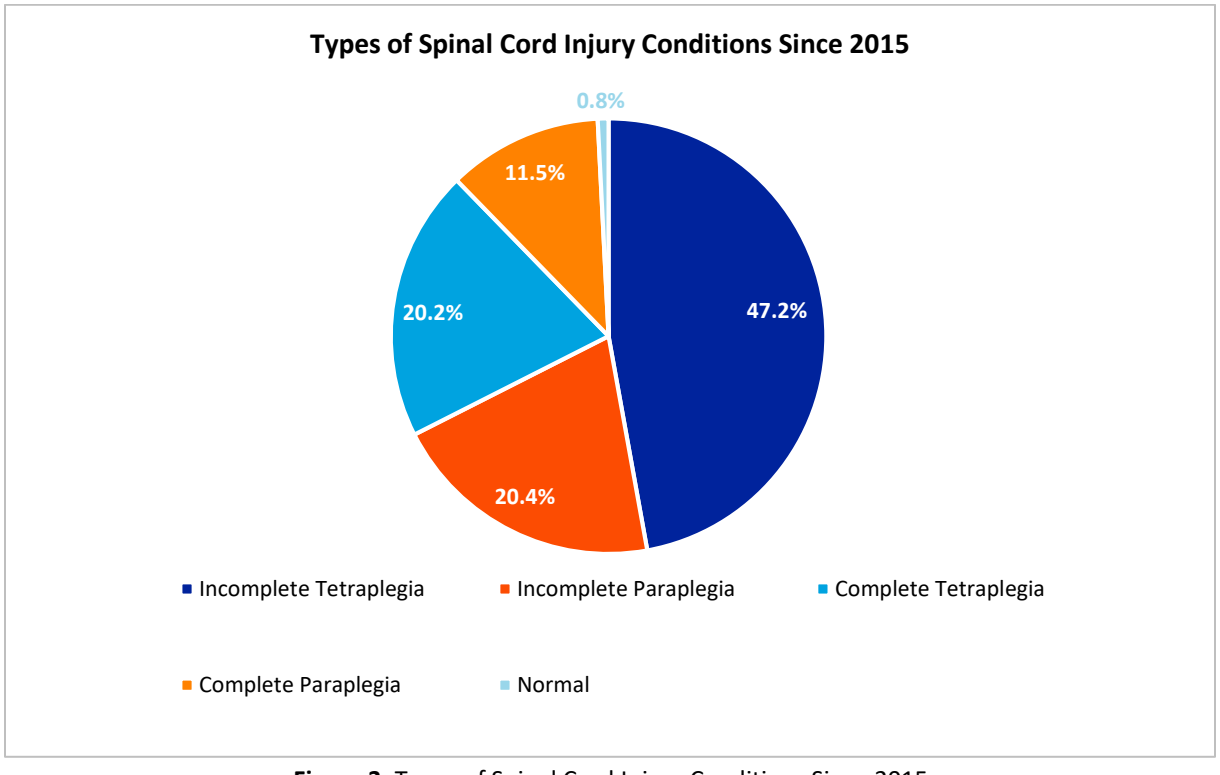


Figure 3. Types of Spinal Cord Injury Conditions Since 2015
(Source: National Spinal Cord Injury Statistical Center, 2018)

[5] American Association of Neurological Surgeons (2019). Spinal Cord Injury. Retrieved from http://www.aans.org/patient%20information/conditions%20and%20treatments/spinal%20cord%20injury.aspx
[6] Mayo Clinic (2019). Spinal cord injury. Retrieved from https://www.mayoclinic.org/diseases-conditions/spinal-cord-injury/symptoms-causes/syc-20377890

There is a difference between life expectancy of the general population and those living with SCI. The life expectancy estimations for SCI populations are based on patients who survived the first 24 hours and at least one-year post-injury.

- Life expectancy for people living with SCI has not improved since the 1980s.
- Figures 4 and 5 below contrast life expectancy for the general population against the varying life expectancies for different SCI conditions based on age at injury.
- The risk of mortality is significantly higher during the first year after injury than the following years. [7]

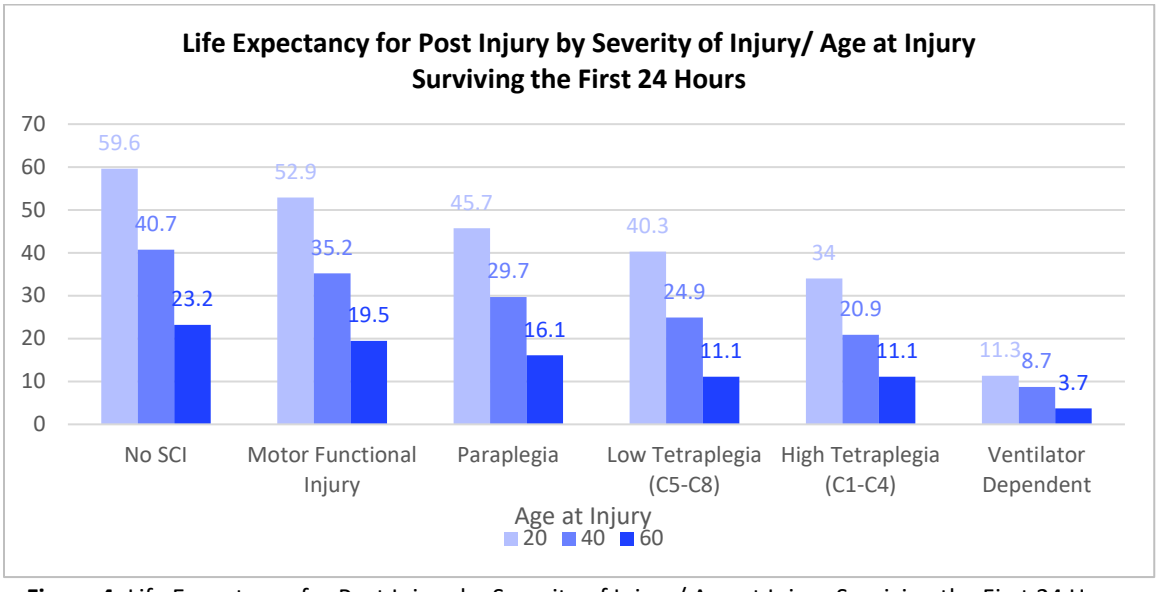


Figure 4. Life Expectancy for Post Injury by Severity of Injury/ Age at Injury Surviving the First 24 Hours (Source: National Spinal Cord Injury Statistical Center, 2018)

[7] National Spinal Cord Injury Statistical Center (2018). Spinal Cord Injury Facts and Figures at a Glance. Retrieved from https://www.nscisc.uab.edu/Public/Facts%20and%20Figures%20-%202018.pdf

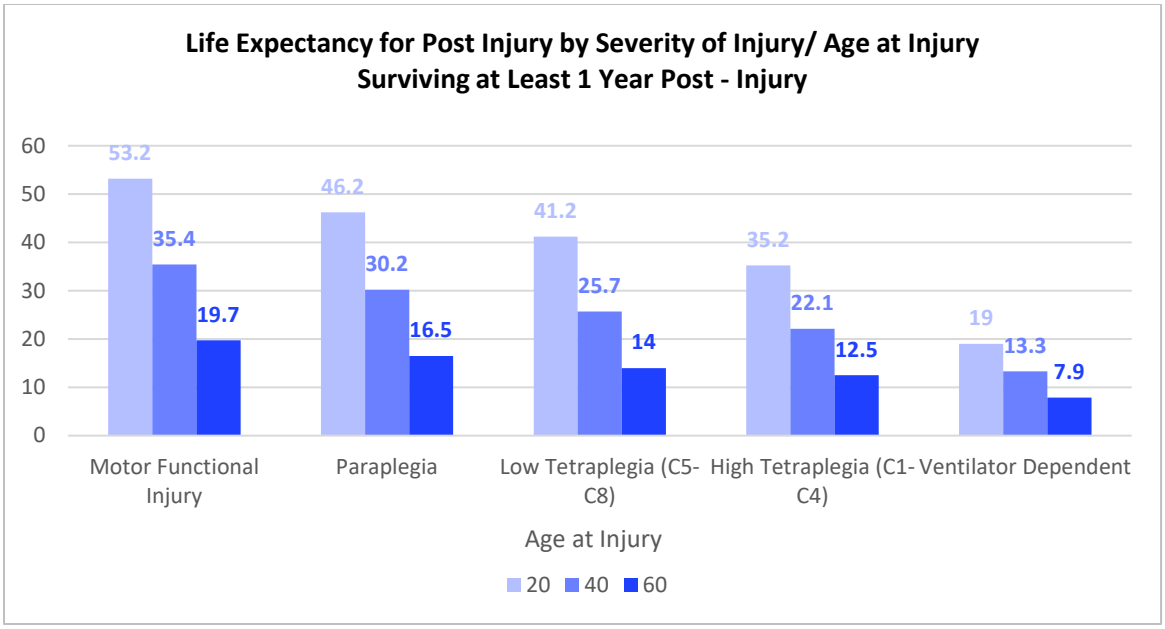


Figure 5. Life Expectancy for Post Injury by Severity of Injury/ Age at Injury Surviving at Least 1 Year Post-injury
(Source: National Spinal Cord Injury Statistical Center, 2018)

Hospital Data

- In 2018, Adventist HealthCare Rehabilitation Hospital served a total of 214 spinal cord injury patients: 35 traumatic and 179 non-traumatic with an average age of 70 and 68 years, respectively.
- The majority of the patients were male (Figure 6).
- Whites made up the majority of both the traumatic and non-traumatic SCI patients (Figure 7).

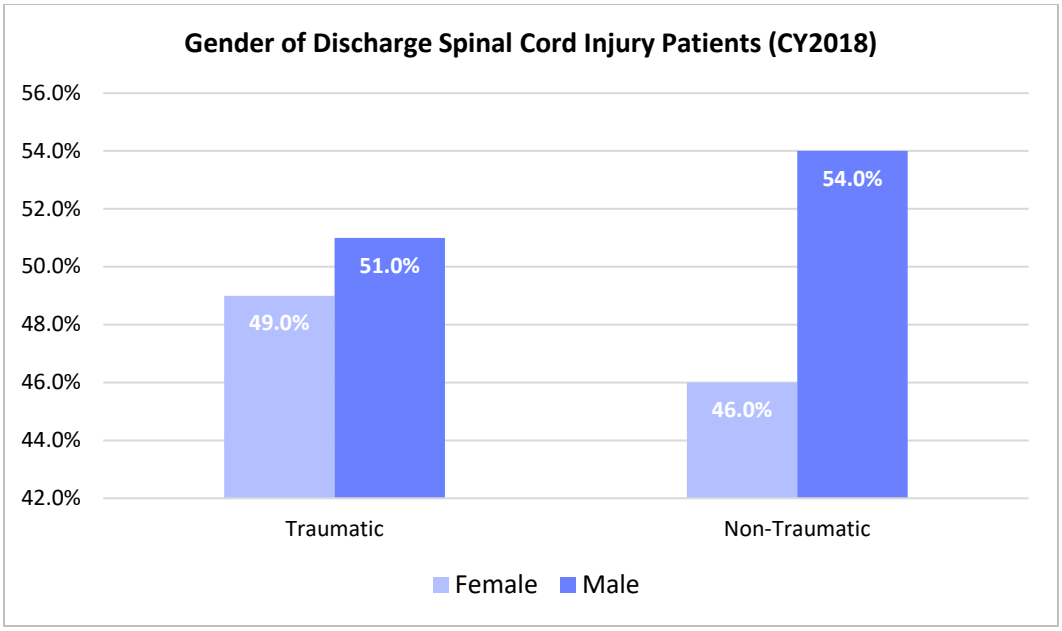


Figure 6. Gender of Discharged Brain Injury Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

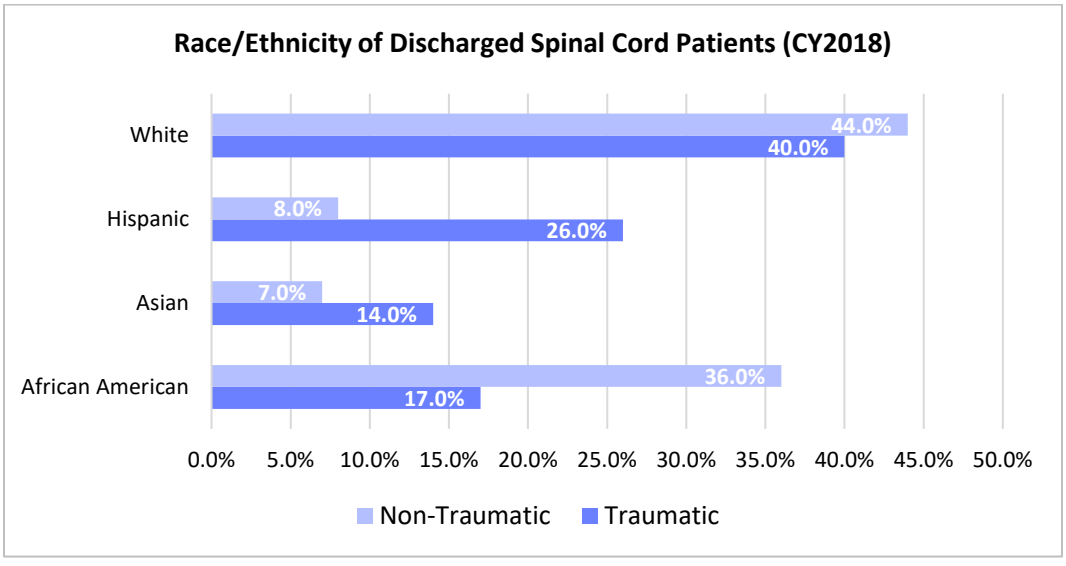


Figure 7. Gender of Discharged Brain Injury Patients, CY2018
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

Community Resources

Adventist HealthCare Rehabilitation Hospital provides several therapies, treatment, and support services for those who suffer from spinal cord injuries. Adventist HealthCare Rehabilitation Hospital and other local services in the Montgomery County and Prince George's County areas include:

1. **ADVENTIST HEALTHCARE - REHABILITATION SERVICES**
   For free support groups and available community resources call or visit:
   Phone: 1-800-542-5096
   Website: Adventist HealthCare Classes & Events

2. **AMPUTEE COALITION**
   Website: https://www.amputee-coalition.org/

3. **DISABILITY PARTNERSHIPS**
   Website:
   http://www.disabilitypartnerships.org/

4. **MIRACLE 4 MELANIE**
   Is to honor our injured service men and women, wounded during OEF, OIF, and OND, by providing them with supplemental resources to aid in their day-to-day recovery and improve their daily morale.
   Website: http://miracle4melanie.org/

5. **INDEPENDENCE NOW**
   Montgomery County Office
   Address: 12301 Old Columbia Pike, Suite 101, Silver Spring, MD 20904
   Phone: 301-277-2839
   Prince George's County Office
   Address: 1300 Caraway Court, Suite 200, Largo, MD 20774
   Email: info@innow.org
   Website: http://www.innow.org

6. **DETERMINED2HEAL**
   Phone: 703-795-5711
   Email: determined2heal@aol.com
   Website:
   http://www.determined2heal.org/

7. **SPINAL CORD INJURY NETWORK**
   Address: 14 Wolf Drive, Silver Spring, MD 20904
   Website:
   http://www.spinalcordinjury.net/

8. **THE SPINAL CORD INJURY MODEL SYSTEM INFORMATION NETWORK**
   Website:
   https://www.uab.edu/medicine/sci/

9. **FACINGDISABILITY.COM**
   Phone: 312-284-2525
   Email: info@facingdisability.com
   Website: https://facingdisability.com/

10. **SUNRISE COMMUNITY – MARYLAND**
    Address: 4801 Forbes Blvd., Lanham, MD 20706
    Phone: 301-459-0566
    Email: maryland@sunrisegroup.org
    Website:
    https://sunrisegroup.org/locations/MD

Section IV: Findings

Part B: Secondary Data

Chapter 4: Cancer

Cancer

KEY FINDINGS

Disparities & Indicators

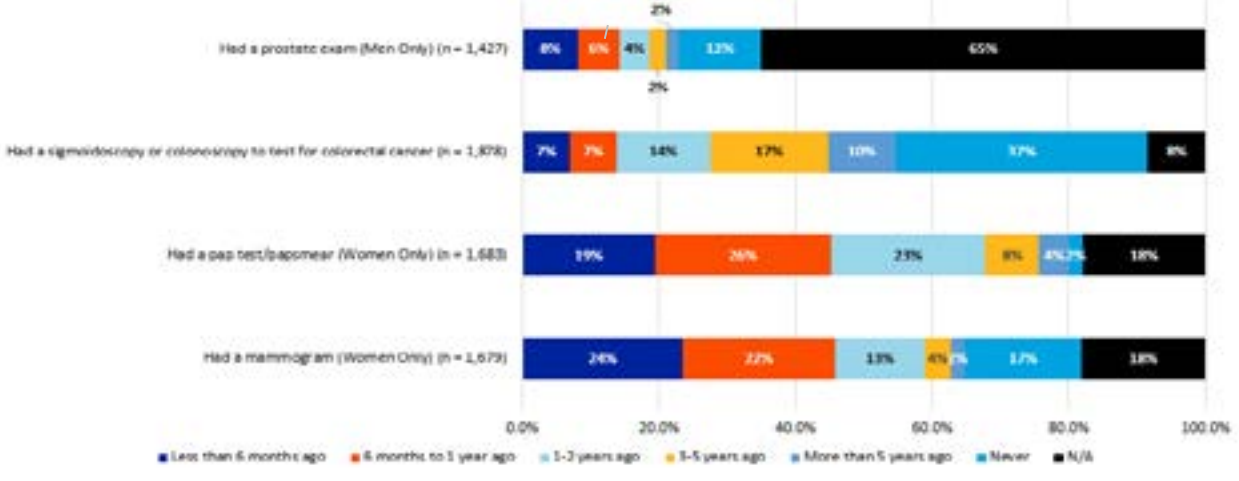
- In both counties, **breast cancer screening** rates are lowest among the **Asian** population (19% less screenings than Hispanics in MC and 7% less screenings than the Black population in PGC)
- **Breast cancer mortality** is 2X higher among the **Black/AA** population compared to Hispanics in PGC and almost 3X higher compared to Asian/PI in MC; **Black/AA** in both counties do not meet the HP 2020 target (20.7%); PGC overall does not meet the target
- **Prostate incidence and mortality** rates are significantly higher among **Black/AA** in MC and PGC, neither meets the HP 2020 mortality target (21.8); the PGC overall rate does not meet the HP 2020 target for prostate mortality
- In PGC, males do not meet the HP 2020 target (39.9) for **colorectal cancer incidence**; for **colorectal cancer mortality**, PGC **Whites**, **Black/AA**, **males**, and PGC overall do not meet the HP 2020 target (14.5)

Trend Over Time

- MC continues to have the lowest age-adjusted mortality rate due to cancer and meets the HP 2020 target (161.4)
- From 2008 – 2015, the age-adjusted mortality rate due to cancer decreased in MC and PGC
- The % of Medicare beneficiaries treated for cancer increased in PGC from 2014 (8.2%) to 2015 (8.4%)
- From 2012 – 2016, breast cancer screening rates for women 50+ decreased by 17% in MC and 25% in PGC

Community Perception[1]

REHAB CBSA: "About how long has it been since you last:"



[1] Adventist HealthCare (2019). Community Health Needs Assessment Primary Data Survey.

Cancer

Impact

Cancer is among the leading causes of death worldwide. In 2018, it was estimated that 1.7 million new cases of cancer would be diagnosed in the United States and over 600,000 people would die from the disease[2]. Cancer outcomes vary by different populations such as race/ethnicity, age, sex, socioeconomic status, health insurance status (uninsured/underinsured), and geographic area of residence. Preventable cancer deaths occur in individuals who do not receive effective cancer prevention, screening and treatment which is often time-sensitive[3]. The most significant cost of cancer is cancer treatment which has an estimated direct medical cost of $80.2 billion dollars in the United States[4]. In Montgomery and Prince George's County Maryland, cancer mortality differs based on demographic groups (race/ethnicity, age, sex, etc.). In both counties, the groups most disproportionally affected by cancer include Black/African-American, White, males, and individuals over 85 years old[5]. By addressing the multifaceted barriers to healthcare, we can lessen the deaths due to cancer.

Cancer at the State Level

- From 2011 to 2015, the largest decreases in incidence were seen in prostate, brain & other nervous system (ONS), and leukemia, while the largest increases in incidence were seen in melanoma of the skin, bladder, uterus, and liver & bile duct cancers (Figure 1).

[2] National Cancer Institute (2018). Cancer Statistics. Retrieved from https://www.cancer.gov/about-cancer/understanding/statistics

[3] Yabroff, K. R., Gansler, T., Wender, R. C., Cullen, K. J. and Brawley, O. W. (2019), Minimizing the burden of cancer in the United States: Goals for a high-performing health care system. CA A Cancer J Clin, 69: 166-183. doi:10.3322/caac.21556

[4] American Cancer Society (2018). Economic Impact of Cancer. Retrieved from https://www.cancer.org/cancer/cancer-basics/economic-impact-of-cancer.html

[5] LiveStories Statistics (2019). Montgomery County and Prince George's County cancer death statistics. Retrieved from https://www.livestories.com/statistics/maryland/montgomery-county-cancer-deaths-mortality

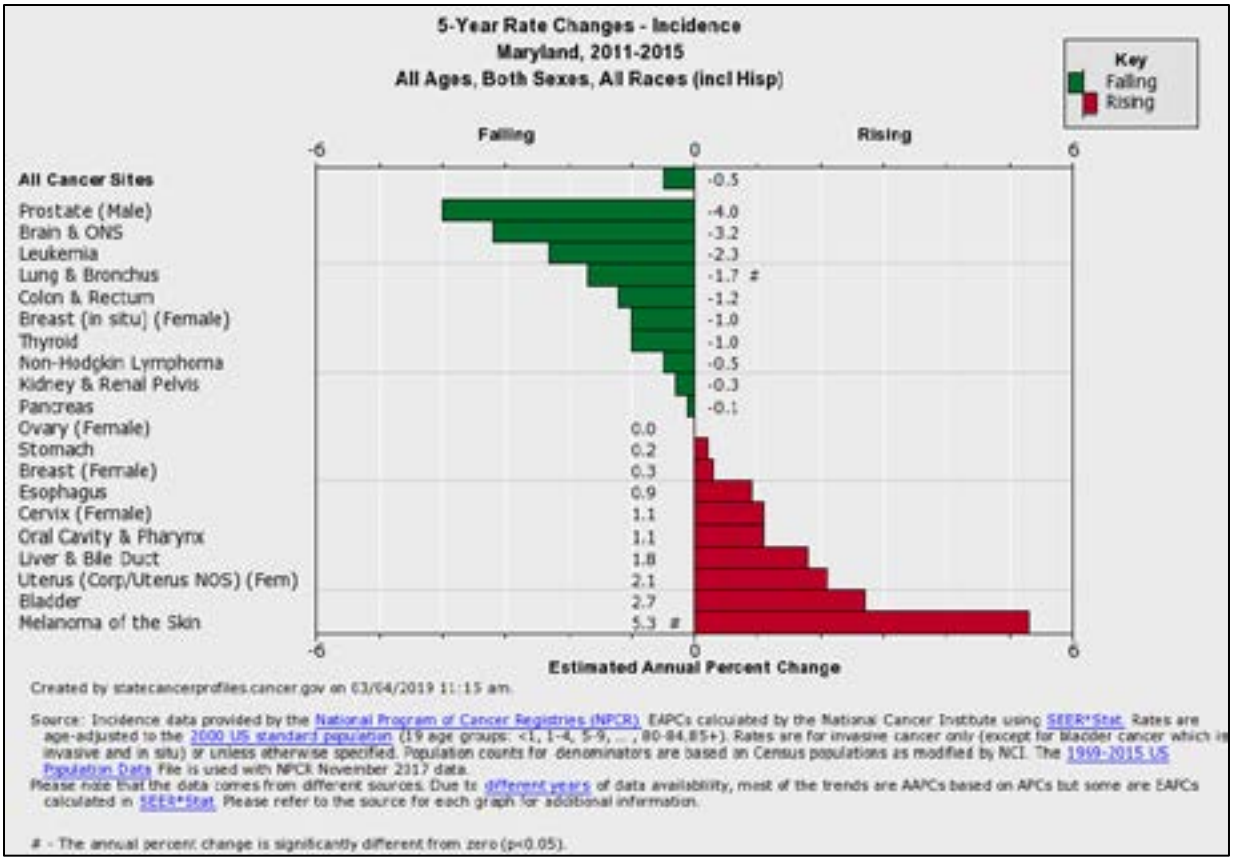


Figure 1. 5-year Rate Changes – Incidence Maryland, 2011 – 2015 All Ages, Both Sexes, All Races (Source: State Cancer Profiles, 2015)

- From 2011 to 2015, the state mortality rates for melanoma of the skin, colorectal, and lung cancers showed the greatest decreases (Figure 2).
- Mortality rates increased for thyroid, liver & bile duct, and uterine cancers in Maryland from 2011 to 2015 (Figure 2).

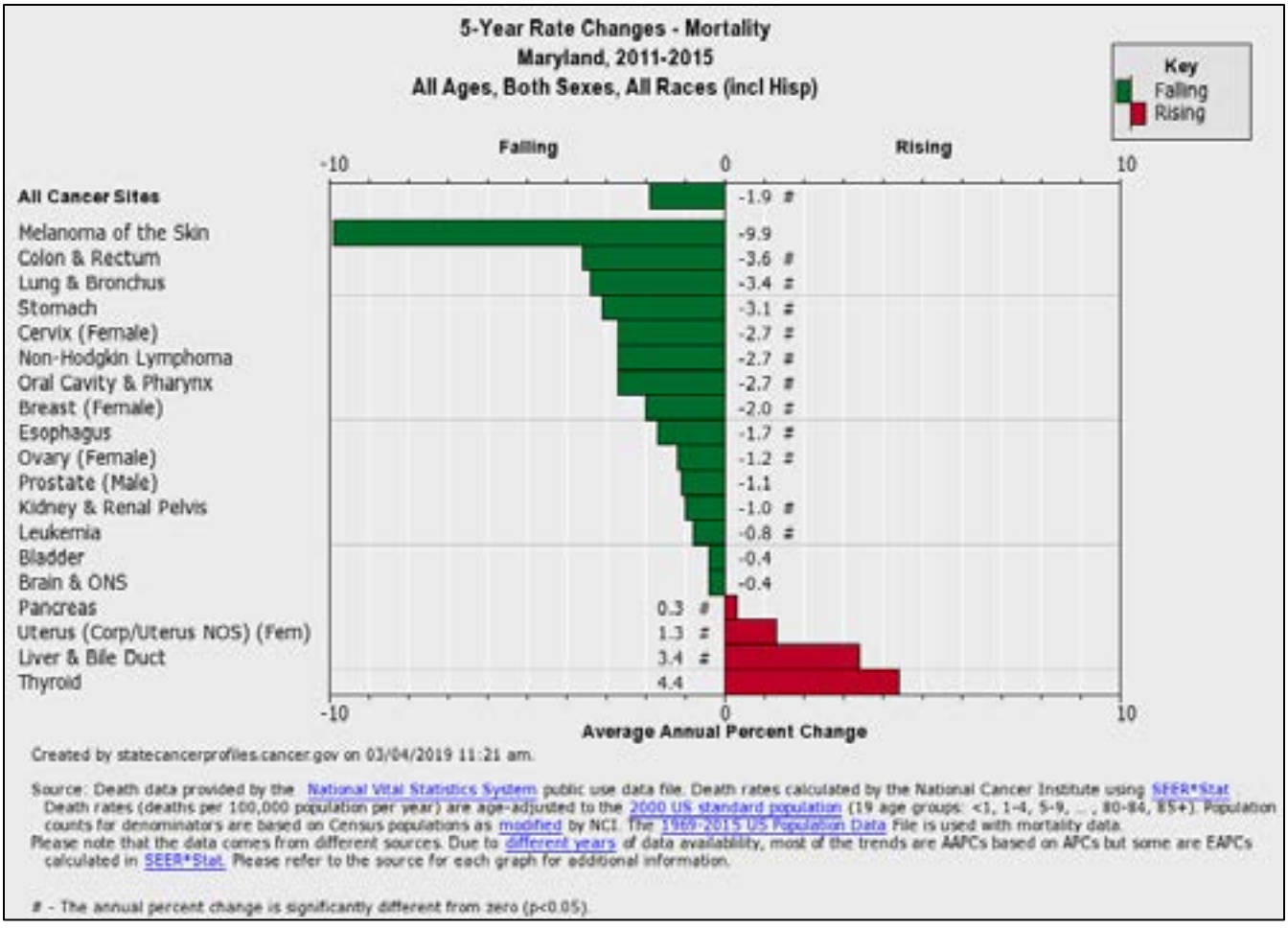


Figure 2. 5-Year Changes – Mortality Maryland, 2011 – 2015 All Ages, Both Sexes, All Races
(Source: State Cancer Profiles, 2015)

- From 2012 to 2016, Maryland's invasive cancer specific incidence rates (per 100,000) were lower than the national rate for the following cancers: lung and bronchus, colon and rectum, Non-Hodgkin lymphoma, kidney and renal pelvis (Table 1).
- The rates were similar for urinary and bladder, corpus and uterus, NOS, and thyroid cancers (Table 1).
- When compared to the nation, Maryland had higher rates of cancer for female breast, prostate, and melanomas of the skin (Table 1).

Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within State- and Sex-Specific Categories

State vs. National Rates: 2012-2016, Male and Female, Maryland *† Rates per 100,000 ‡			
	Site	State	U.S.
1	Female Breast	131.5	125.2
2	Prostate	122.1	104.1
3	Lung and Bronchus	56.4	59.2
4	Colon and Rectum	36.4	38.7
5	Corpus and Uterus, NOS	27.5	26.6
6	Melanomas of the Skin	23	21.8
7	Urinary Bladder	20.9	20.1
8	Non-Hodgkin Lymphoma	17.4	19.2
9	Thyroid	15	14.5
10	Kidney and Renal Pelvis	14.9	16.6

Notes:
† Excludes basal and squamous cell carcinomas of the skin excluding occurrences on genital organs, and in situ cancers excluding urinary bladder
‡ Age-adjusted rates to the 2000 U.S. standard population (19 age groups – Census P25-1130). Rates are suppressed and not ranked if the stratified population is below 50,000 or with case counts under 16.

Table 1. Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Rates for the 10 Primary Sites with the Highest Rates within State and Sex Specific Categories
(Source: United States Cancer Statistics (USCS), 2016)

- From 2012 to 2016, Maryland's cancer specific mortality rates (per 100,000) for males and females were lower than the National rates for lung and bronchus, and Non-Hodgkin Lymphoma (Table 2).
- Rates were comparable between the state and U.S. for colon and rectum, ovary, and liver and intrahepatic bile duct (Table 2).
- Maryland had higher mortality rates than the U.S. for female breast, prostate, pancreas, and corpus and uterus, NOS (Table 2).

Age-Adjusted Cancer Mortality rates for the 10 Primary Sites with the Highest Rates within State- and Sex-Specific Categories

State vs. National Rates: 2012–2016, Male and Female , Maryland * * Rates per 100,000 †			
	Site	**State**	**U.S.**
1	Lung and Bronchus	40.3	41.9
2	Female Breast	22.1	20.6
3	Prostate	20.2	19.2
4	Colon and Rectum	14.1	14.2
5	Pancreas	11.5	11.0
6	Ovary	6.9	7.0
7	Liver and Intrahepatic Bile Duct	6.5	6.5
8	Leukemias	6.3	6.5
9	Corpus and Uterus, NOS	5.7	4.7
10	Non-Hodgkin Lymphoma	5.2	5.6

Notes:
*Data are chosen from statewide and metropolitan area cancer registries that satisfy data quality requirements for all invasive cancer sites combined. Rates include approximately 99.0% of the U.S. population.
† Excludes basal and squamous cell carcinomas of the skin excluding occurrences on genital organs, and in situ cancers excluding urinary bladder

Table 2. Age-Adjusted Cancer Mortality rates for the 10 Primary Sites with the Highest Rates within State and Sex Specific Categories
(Source: United States Cancer Statistics (USCS), 2016)

Cancer at the County Level

- Since 2008, Montgomery County has met the HP 2020 targets for age-adjusted mortality rates due to cancer (Figure 3).
- The age-adjusted mortality rate has decreased overall for Prince George's County. However, they did not meet the HP 2020 target (Figure 3).
- Overall, Maryland has not met the HP 2020 target (Figure 3).

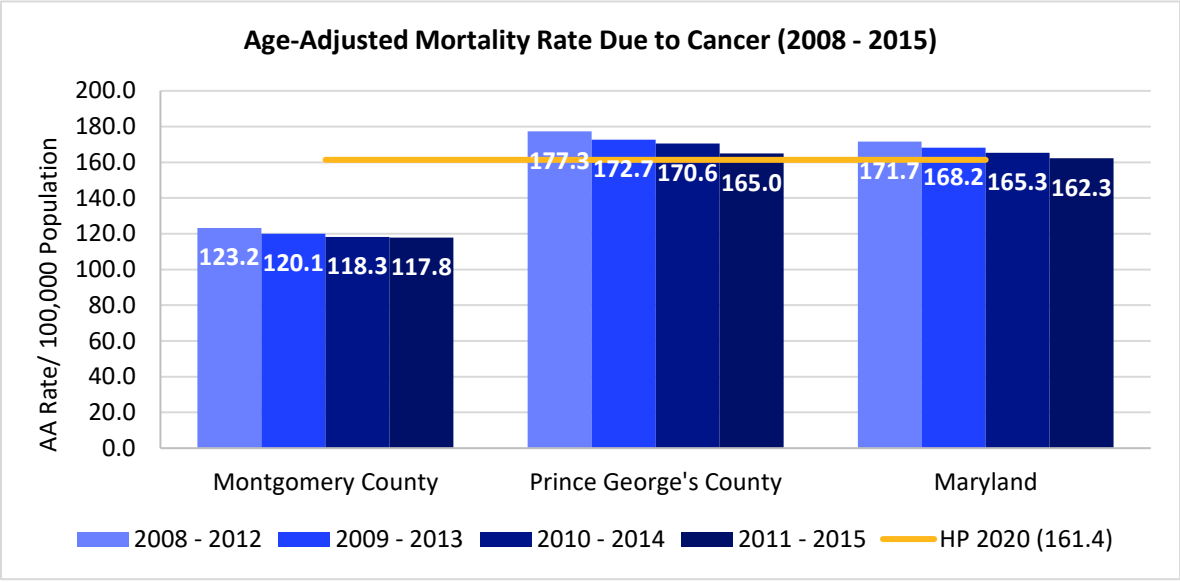


Figure 3. Age-Adjusted Mortality Rate due to Cancer in Montgomery County, Prince George's County, and Maryland, 2008 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- For both Montgomery and Prince George's County, males had a higher age-adjusted mortality rate as compared to women. Overall, Prince George's County has higher age-adjusted mortality rates (Figure 4).

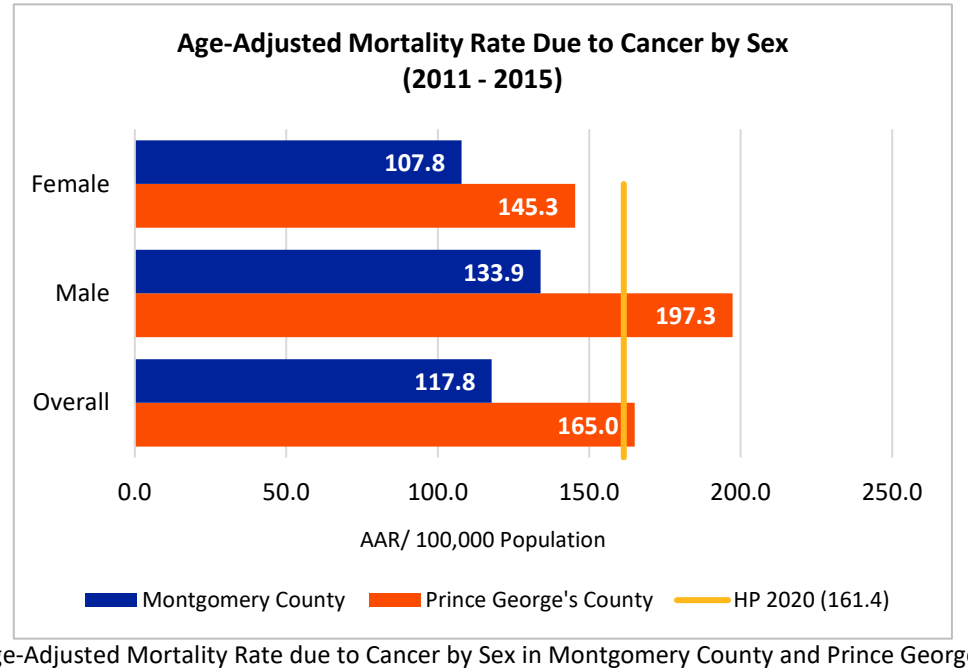


Figure 4. Age-Adjusted Mortality Rate due to Cancer by Sex in Montgomery County and Prince George's County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- Mortality rates due to Cancer in Montgomery County were highest among Blacks, followed by Whites, Asian/Pacific Islander, and then Hispanic (Figure 5).
- In Prince George's County, the highest mortality rates due to Cancer are attributed to Whites, followed by Blacks, Hispanic, and then Asian/Pacific Islander (Figure 6).

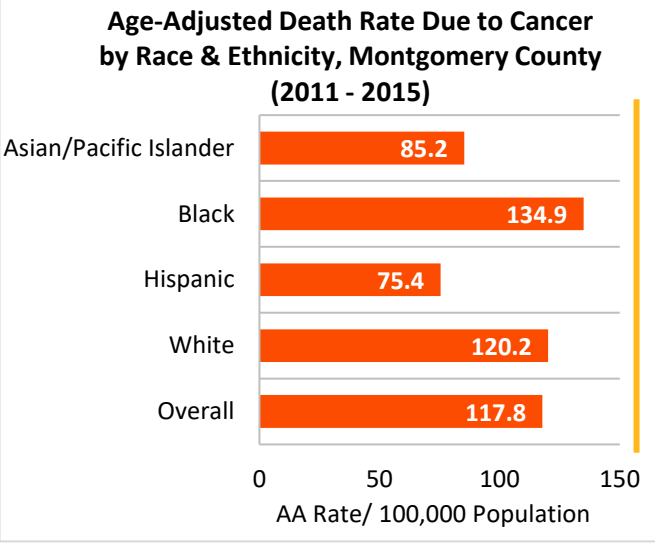


Figure 5. Age-Adjusted Mortality Rate due to Cancer by Race/Ethnicity in Montgomery County, 2011 – 2015 (Source: Healthy Montgomery, 2018)

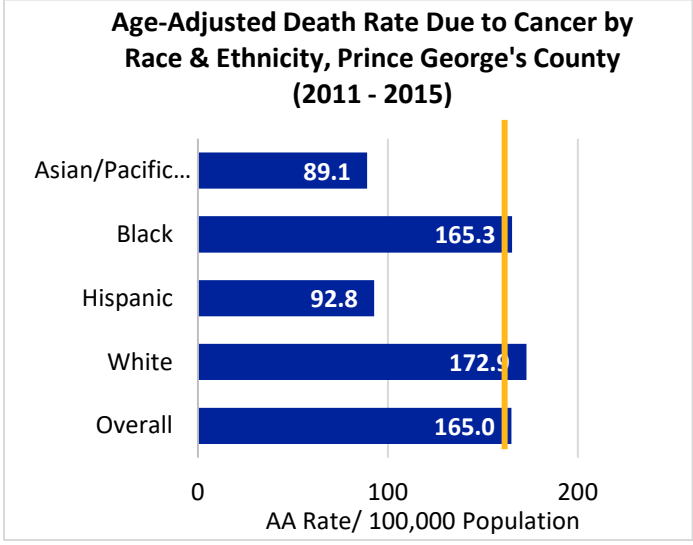


Figure 6. Age-Adjusted Mortality Rate due to Cancer by Race/Ethnicity in Prince George's County, 2011 – 2015 (Source: PGC Health Zone, 2018)

- Overall, the number of Medicare beneficiaries that were treated in Maryland decreased from 2013 to 2014, with a slight increase in 2015 (Figure 7).
- Prince George's County had an increased trend of Medicare beneficiaries from 2014 to 2015 (Figure 7).
- When compared to Prince George's County, Montgomery County demonstrated a decrease from 2013 to 2014. However, Montgomery County remained constant from 2014 to 2015 (Figure 7).

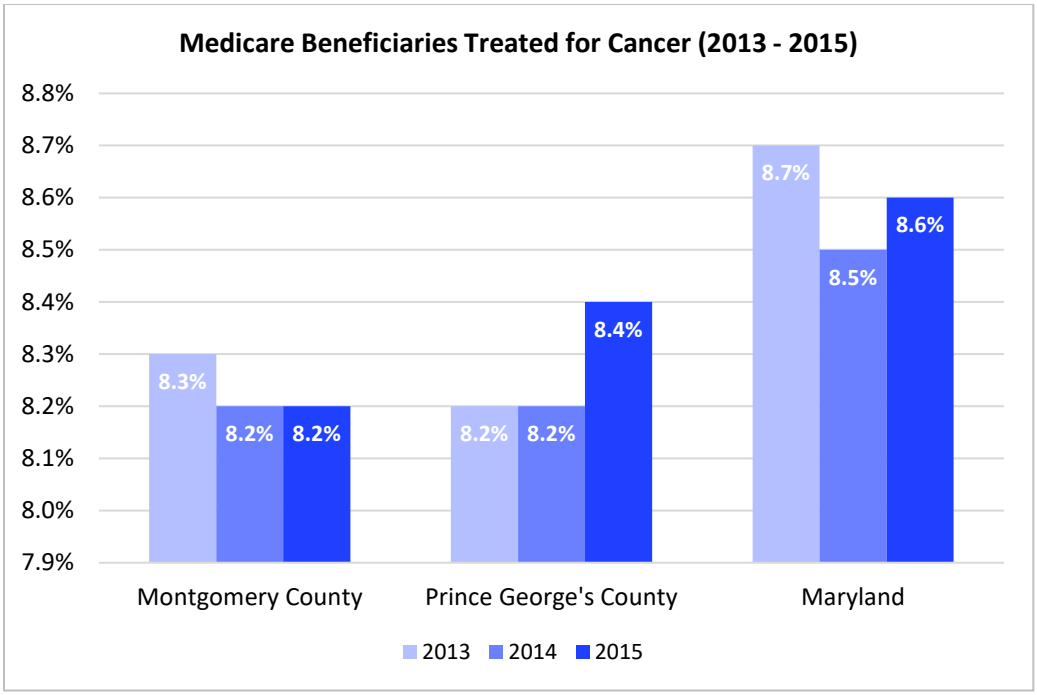


Figure 7. Percent of Medicare Beneficiaries that were Treated for Cancer in Montgomery County, Prince George's County, and Maryland, 2013 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

4.1 Breast Cancer

Incidence

- From 2009 to 2015, Montgomery and Prince George's County had an increased breast cancer incidence rate which was similar to Maryland overall (Figure 8).
- When compared to Montgomery County and Maryland, Prince George's County has the lowest rates of breast cancer incidence (Figure 8).

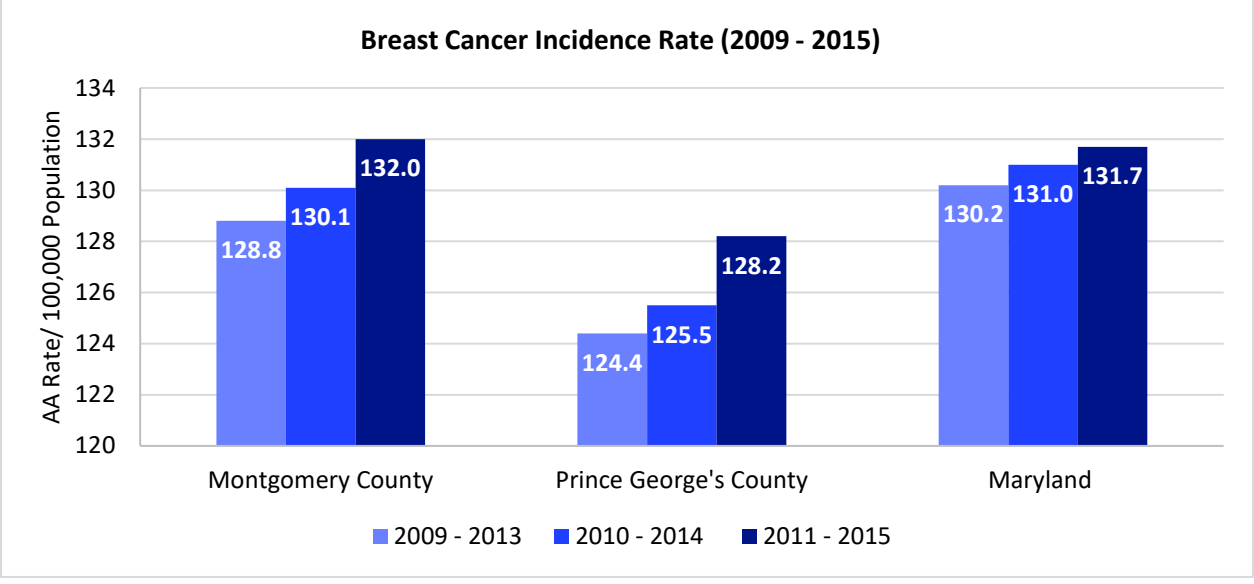


Figure 8. Age-Adjusted Incidence Rate for Breast Cancer in Montgomery County, Prince George's County, and Maryland, 2009 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- When comparing incidence rate by race/ethnicity and county, Montgomery County has a slightly higher overall breast cancer incidence rate than Prince George's County (Figure 9).
- In Montgomery County, the population subgroup with the highest incidence rate for breast cancer is American Indian/Alaska Native (Figure 9).
- In Prince George's County, the group with the highest incidence rate is Black individuals followed by White individuals (Figure 9).

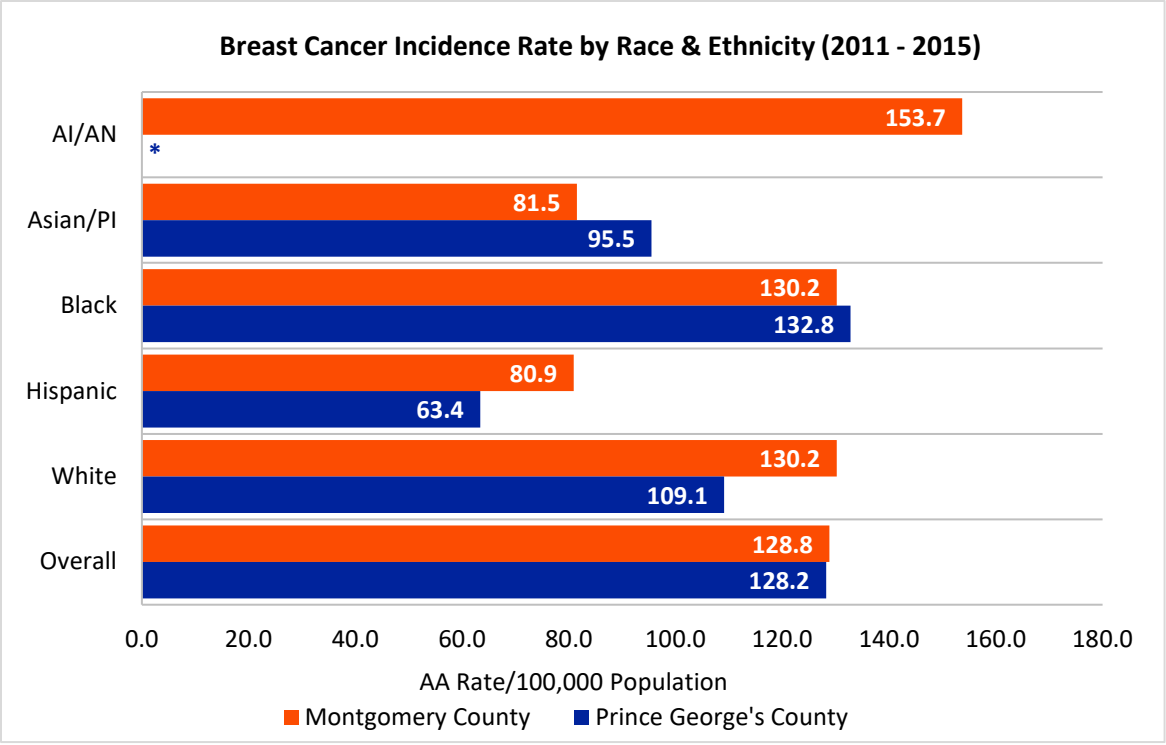


Figure 9. Age-Adjusted Incidence Rate for Breast Cancer by Race & Ethnicity in Montgomery & Prince George's County, 2011 – 2015
*Data not available/not applicable
(Source: Healthy Montgomery & PGC Health Zone, 2018)

Screening

- Since 2012, the total percentage of women aged 50 and over who had their recommended mammogram in the past two years decreased by 20 percent in both counties (Figure 10).
- Both Montgomery County and Prince George's County had less breast cancer screenings than Maryland overall (Figure 10).

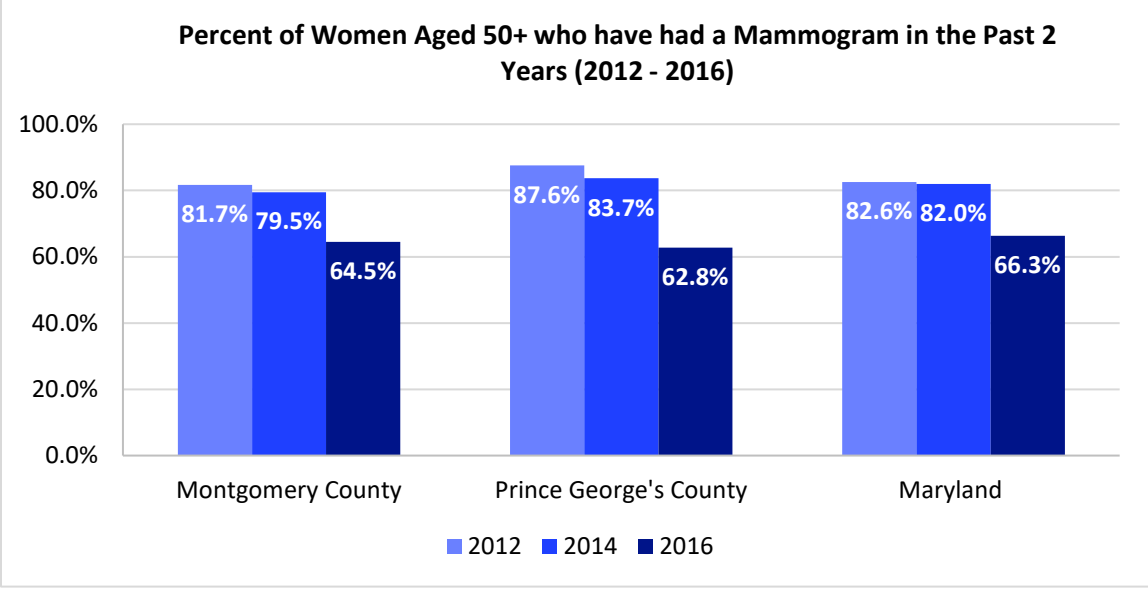


Figure 10. Percentage of Women aged 50 and over who have had a Mammogram in the Past Two Years in Montgomery and Prince George's Counties, 2012 – 2016
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- In Montgomery County, there was a greater percentage of 65+ year old women who received a mammogram as compared to ages 50–64. In Prince George's County, the percentages of individuals in both 65+ and 50–64-year old groups, were consistent with the overall rates, all being roughly 83–84.0 percent (Figures 11 and Figure 12).

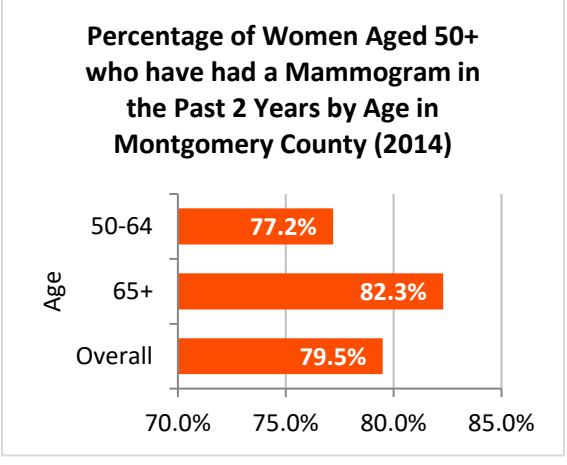


Figure 11. Percentage of Women aged 50 + who have had a Mammogram in the Past Two Years by Age in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

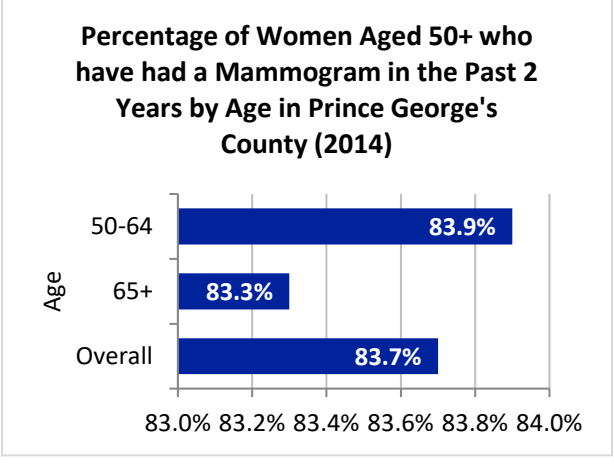


Figure 12. Percentage of Women aged 50+ who have had a Mammogram in the Past Two Years by Age in Prince George's County, 2014
(Source: PGC Health Zone, 2014)

- When evaluating mammography by race/ethnicity, in 2014, Montgomery County demonstrated the highest percentage group as Hispanic, followed by White and Black individuals (at about the same percentage), then Asian and then Other. For Prince George's County, the highest percentage of mammography was demonstrated in Blacks, followed by Hispanics, then Whites, Asians, and then Other (Figures 13 and Figure 14).

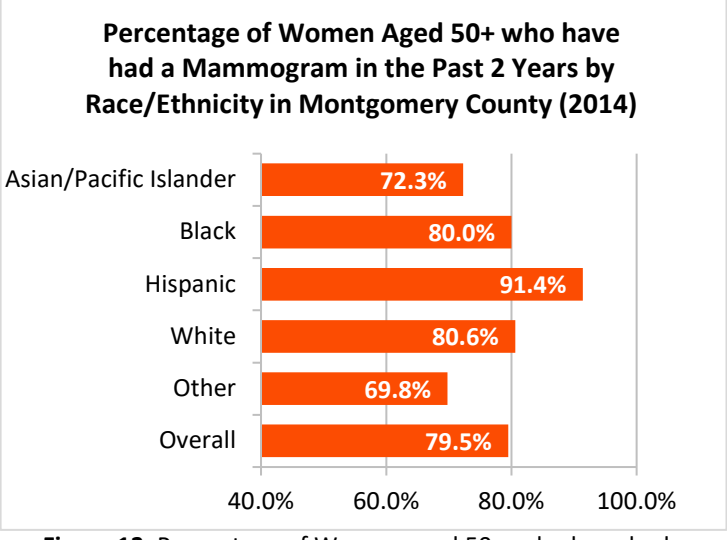


Figure 13. Percentage of Women aged 50 + who have had a Mammogram in the Past Two Years by Race/Ethnicity in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

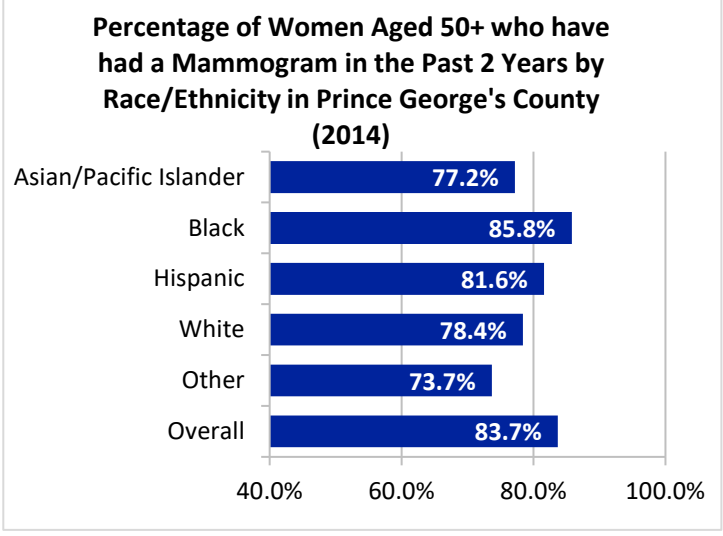


Figure 14. Percentage of Women aged 50+ who have had a Mammogram in the Past Two Years by Race/Ethnicity in Prince George's County, 2014
(Source: PGC Health Zone, 2014)

Mortality

- From 2009 to 2015, Montgomery County met the HP 2020 Target. However, Prince George's County and Maryland did not (Figure 15).
- In Prince George's County, there was a slight decrease in mortality from 2011 to 2015 as compared to previous years (Figure 15).
- In Maryland, the mortality rate due to breast cancer has decreased by 0.4 from 2010 to 2015 (Figure 15).

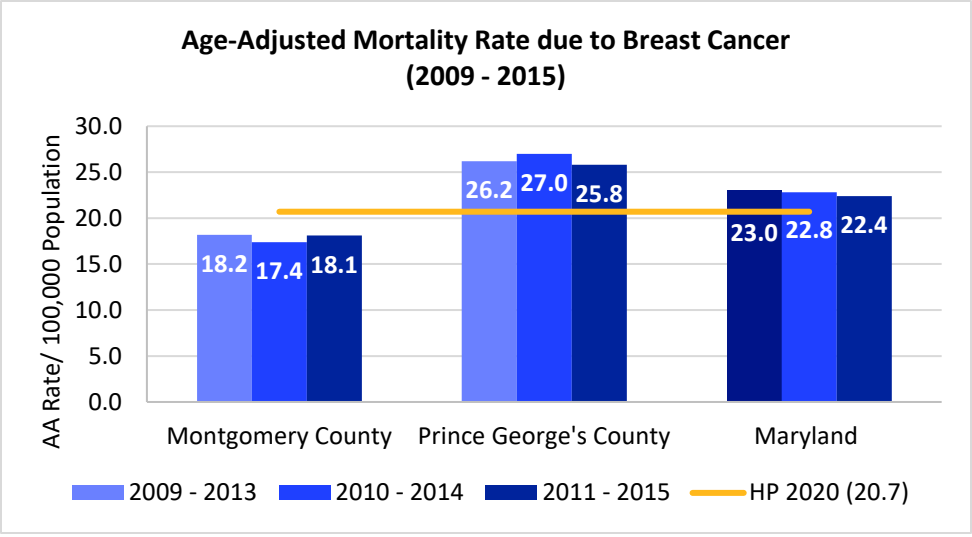


Figure 15. Age-Adjusted Mortality Rate to Breast Cancer in Montgomery County, Prince George's County, and Maryland, 2009 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- When comparing race and ethnicity data, Montgomery County overall met the HP 2020 mortality rate due to breast cancer target (Figure 16).
- In Montgomery County, all the population subgroups except for Black met the HP 2020 Target (Figure 16).
- For Blacks in Montgomery and Prince George's County, the mortality rate is significantly higher than that of any other racial/ethnic group (Figure 16).
- In Prince George's County, none of the subpopulations met the HP 2020 target (Figure 16).

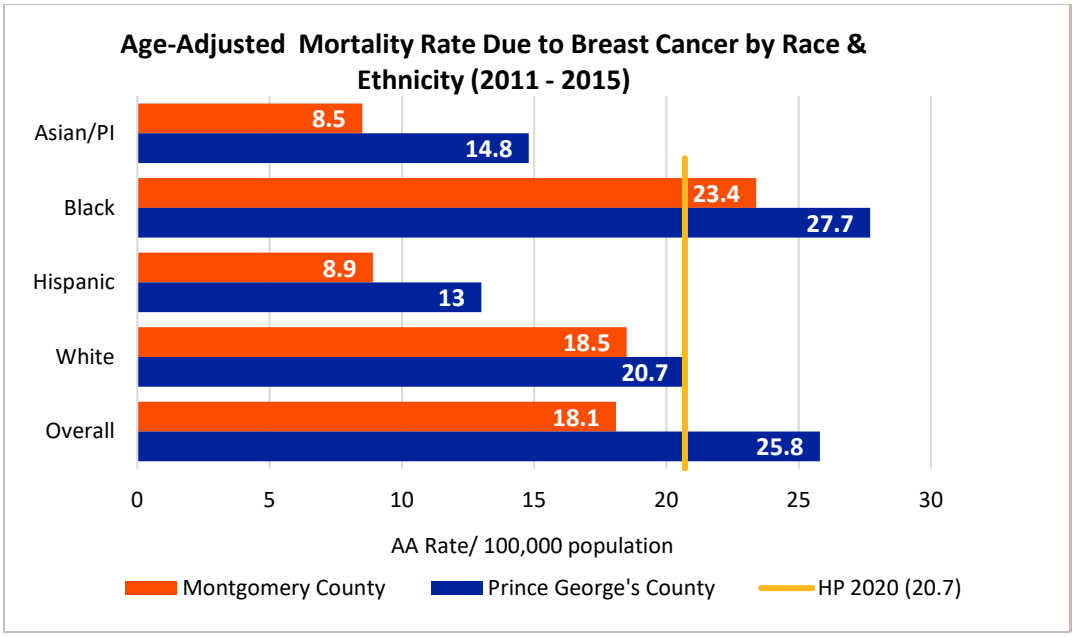


Figure 16. Age-Adjusted Mortality Rate by Race & Ethnicity in Montgomery & Prince George's County, 2011 – 2015 (Source: Healthy Montgomery & PGC Health Zone, 2018)

4.2 Lung Cancer

Incidence

- From 2008 to 2015, the lung cancer incidence rates decreased in both counties and Maryland. Montgomery County has the lowest incidence rate followed by Prince George's County and Maryland (Figure 18).

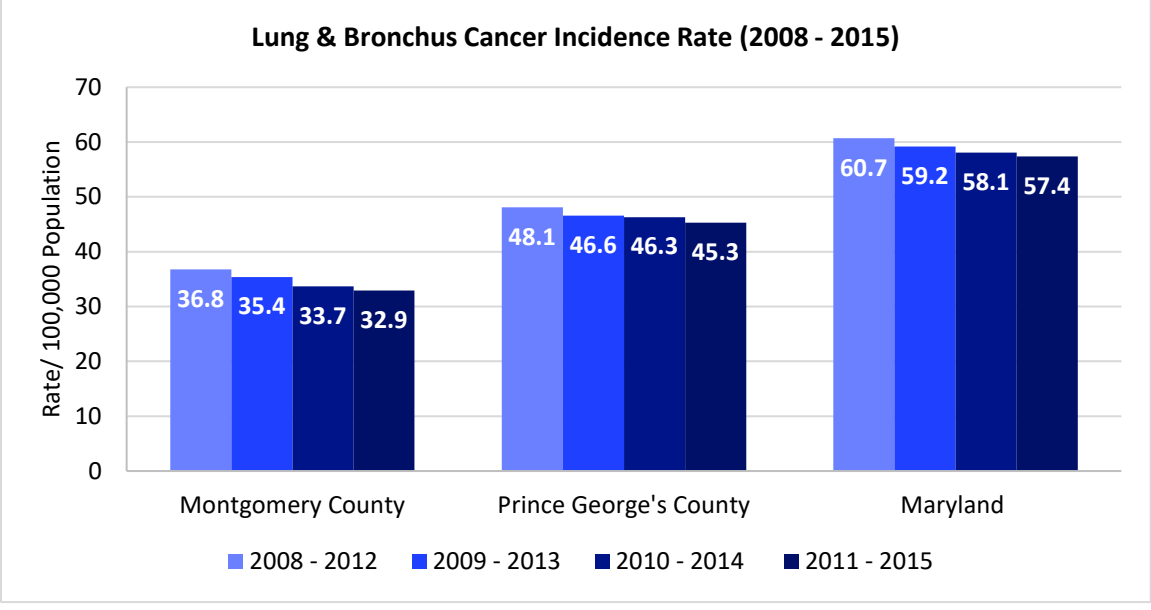


Figure 18. Age-Adjusted Incidence Rate for Lung and Bronchus Cancers in Montgomery County, Prince George's County, and Maryland, 2008 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2015)

- When evaluating lung and bronchus cancer incidence rates by sex, Montgomery and Prince George's County men had higher rates than women (Figure 19).
- Prince George's County had a larger gap for lung and bronchus cancer incidence rates when compared to Montgomery County (Figure 19).

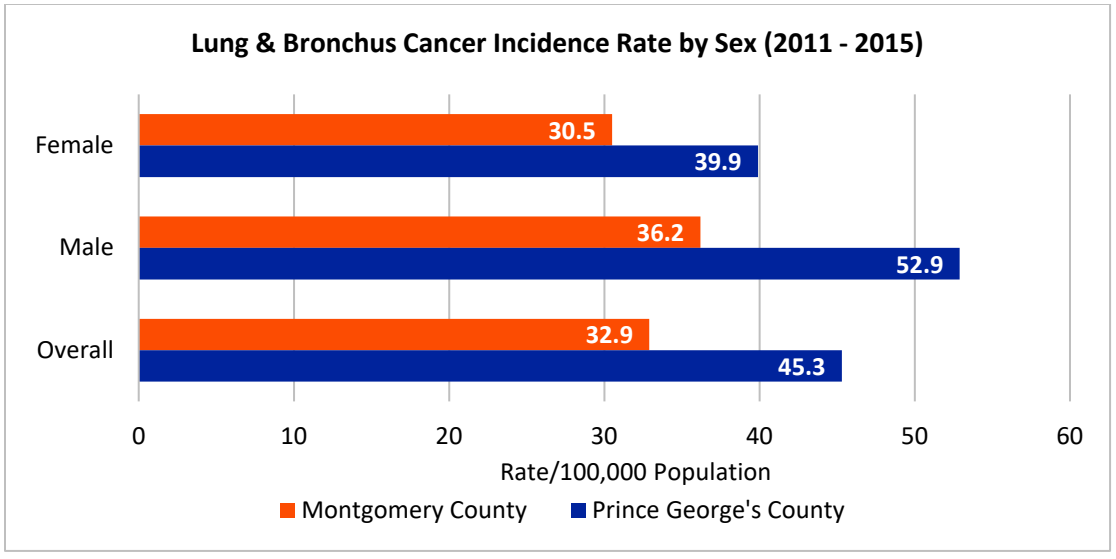


Figure 19. Age-Adjusted Incidence Rate for Lung and Bronchus Cancers by Sex in Montgomery and Prince George's County, 2011 – 2015
(Source: Healthy Montgomery & Prince George's County, 2018)

- In Montgomery and Prince George's County, White followed by Black individuals had the highest incidence rate for lung and bronchus cancer from 2011 to 2015 (Figure 20).
- White individuals had a higher incidence rate than the overall average for Prince George's County (Figure 20).

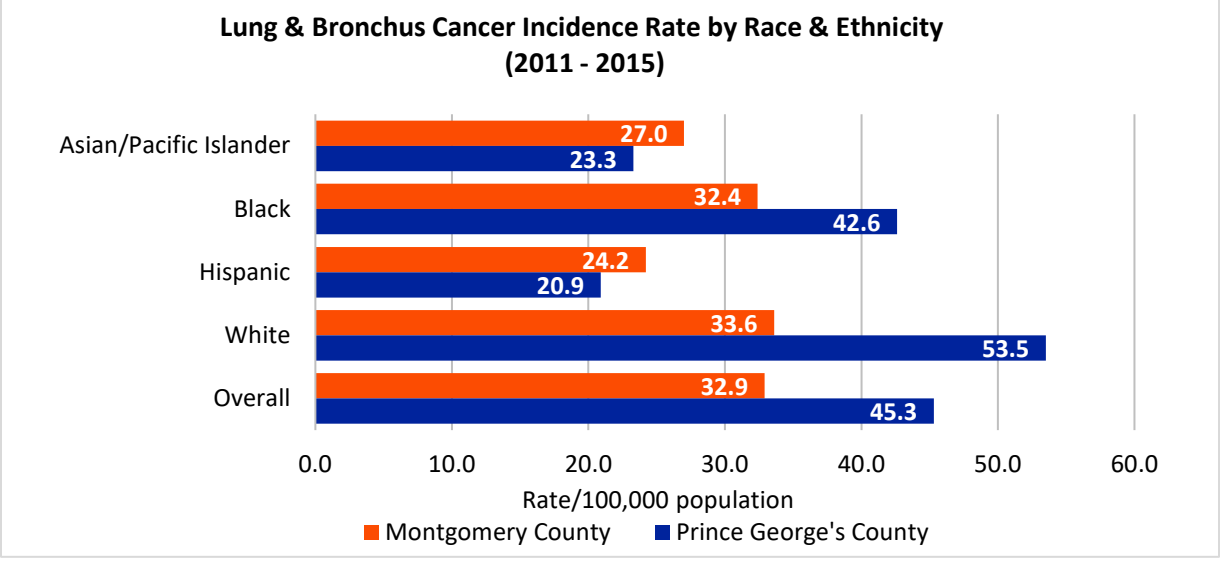


Figure 20. Age-Adjusted Incidence Rate for Lung and Bronchus Cancers by Race & Ethnicity, 2011 – 2015
(Source: Healthy Montgomery & Prince George's County, 2018)

Mortality

- From 2009 to 2015, the age-adjusted mortality rate due to lung cancer steadily decreased in both Montgomery and Prince George's County and Maryland (Figure 21).
- When compared to Prince George's County and Maryland, Montgomery County had significantly lower mortality rates due to lung cancer (Figure 21).

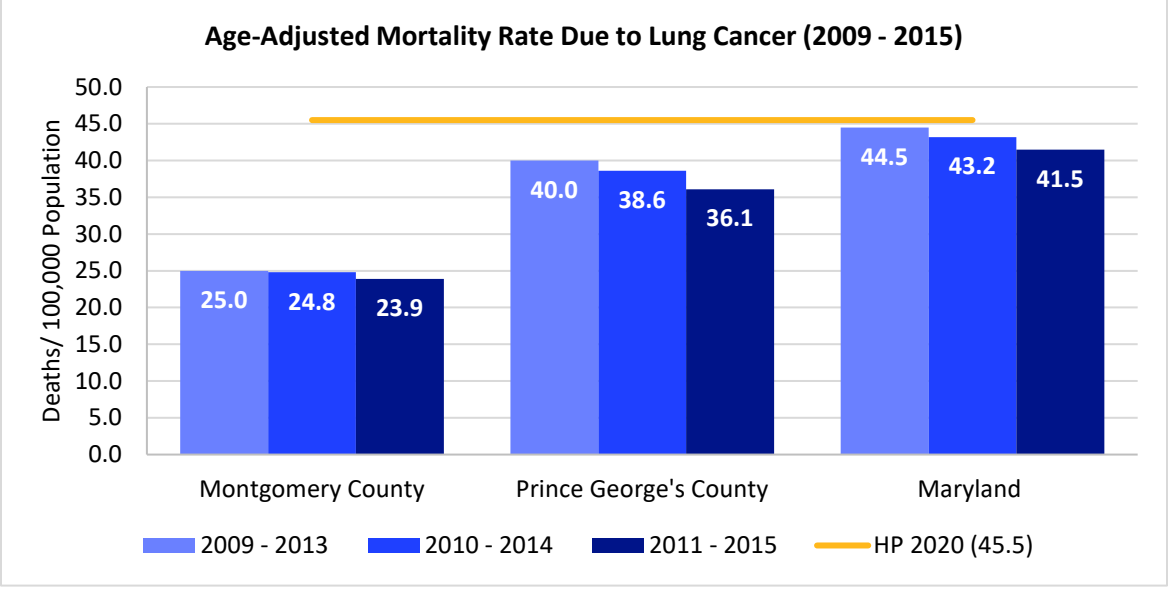


Figure 21. Age-Adjusted Mortality rate for Lung Cancers in Montgomery County, Prince George's County, and Maryland, 2009 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- From 2011 to 2015, both Montgomery and Prince George's County met the HP 2020 goal for age-adjusted mortality rate due to lung cancer which is comparable to that of Maryland (Figure 22).
- Males in both counties and the state had a higher mortality rate when compared to women; however, Prince George's County males had the highest mortality rate overall (Figure 22).

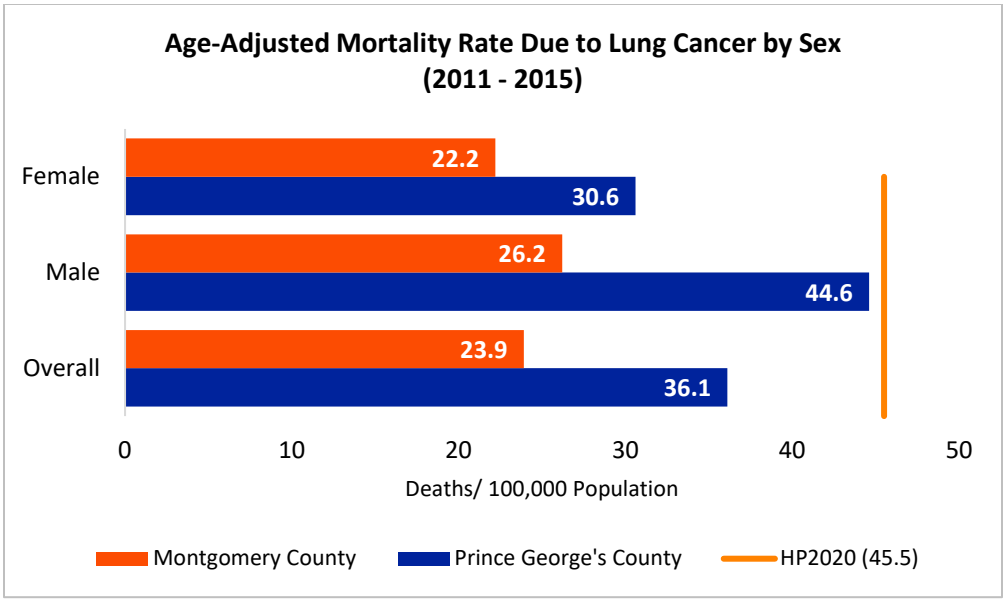


Figure 22. Age-Adjusted Mortality rate for Lung Cancers by Sex in Montgomery County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- Mortality rates due to lung cancer in both counties, when broken down by race/ethnicity, indicated that all categories surpassed the HP 2020 target (Figure 23).
- White individuals in both counties had the highest mortality rates followed by Black, Asian/Pacific Islander and then Hispanics (Figure 23).
- When comparing both counties by race and ethnicity, Prince George's County's White population had nearly 2X the mortality rate for lung cancer (Figure 23).

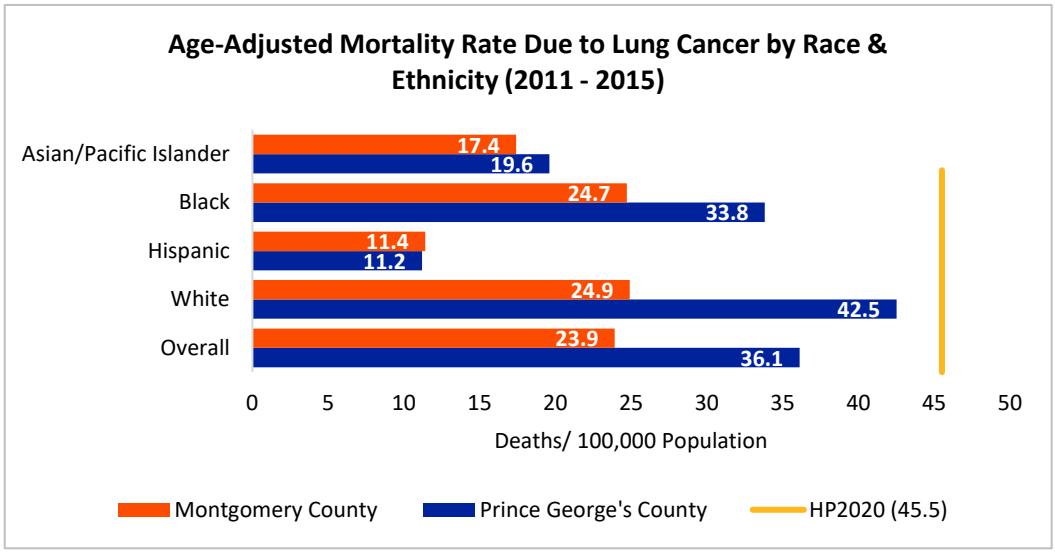


Figure 23. Age-Adjusted Mortality Rate for Lung Cancers per by Race/Ethnicity in Montgomery and Prince George's County, 2011 – 2015
(Source: Healthy Montgomery, 2018)

4.3 Colorectal Cancer

Incidence

- Overall, colorectal cancer incidence rates in Maryland have declined since 2008 which is similar to Montgomery and Prince George's County (Figure 24).
- Both counties and Maryland met the HP 2020 target (Figure 24).
- When comparing both counties, Montgomery County had the lowest incidence rates for colorectal cancer from 2008 to 2015 (Figure 24).

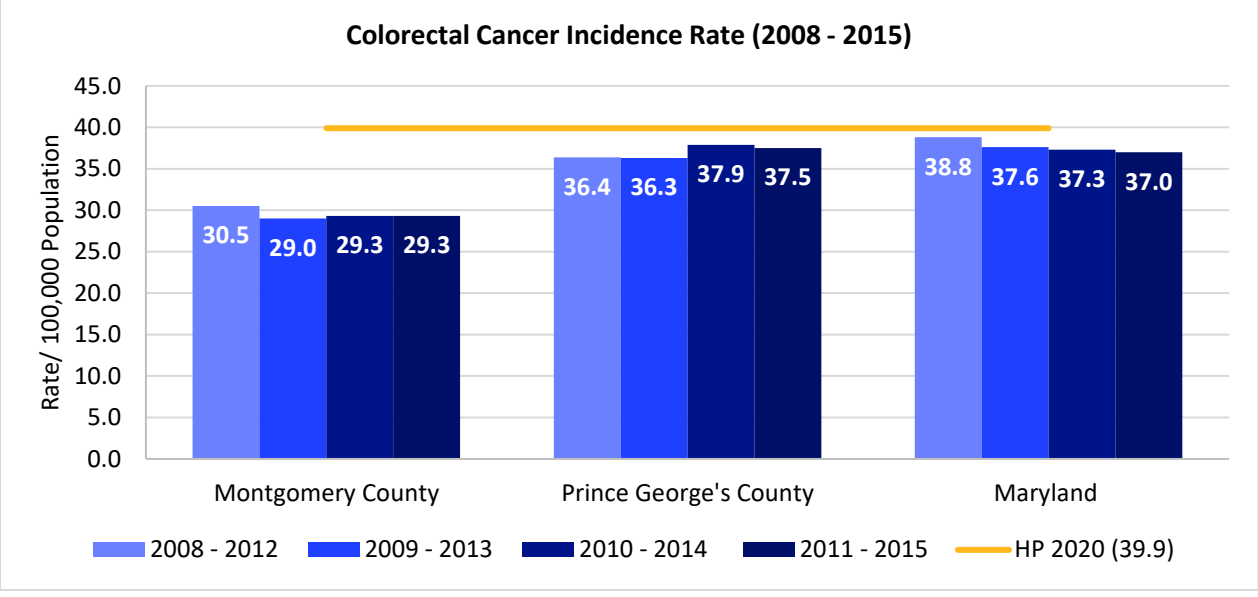


Figure 24. Age-Adjusted Incidence Rate for Colorectal Cancer in Montgomery County, Prince George's County, and Maryland, 2008 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- When looking at incidence rates broken down by sex, males in both counties demonstrated higher incidence for colorectal cancer than females (Figure 25).
- Montgomery County rates met the HP 2020 target. However, in Prince George's County, the HP 2020 target was met only for female and overall rates; the rate for males did not meet the target (Figure 25).

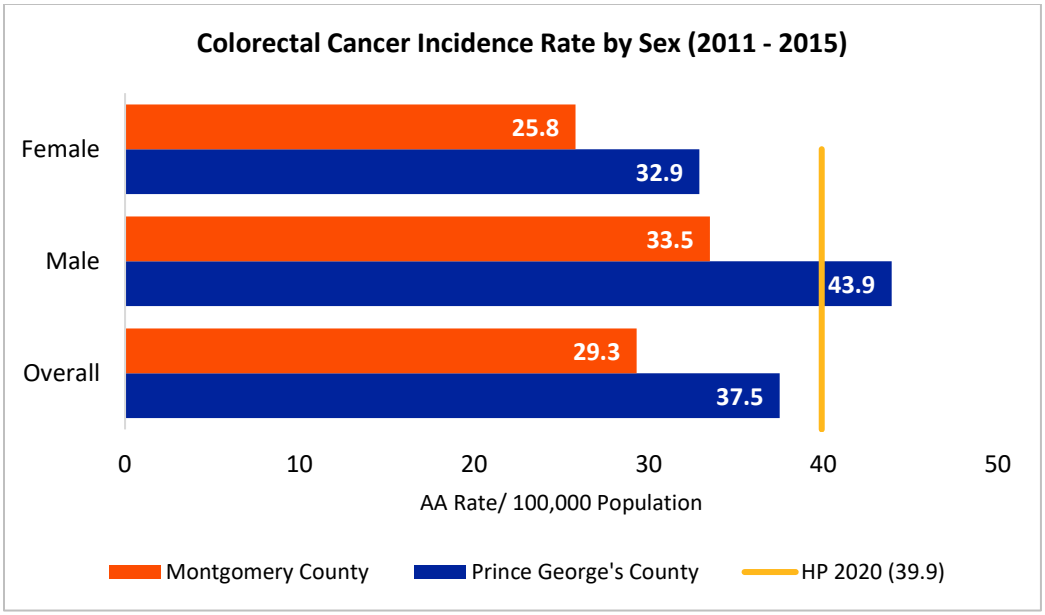


Figure 25. Colorectal Cancer Incidence Rate by Sex in Montgomery County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- When stratified by race/ethnicity, both counties met the HP 2020 target for colorectal cancer incidence rate (Figure 26).
- In both Montgomery and Prince George's County, Black individuals had the highest incidence rates, followed by White, and Asian/Pacific Islander (Figure 26).

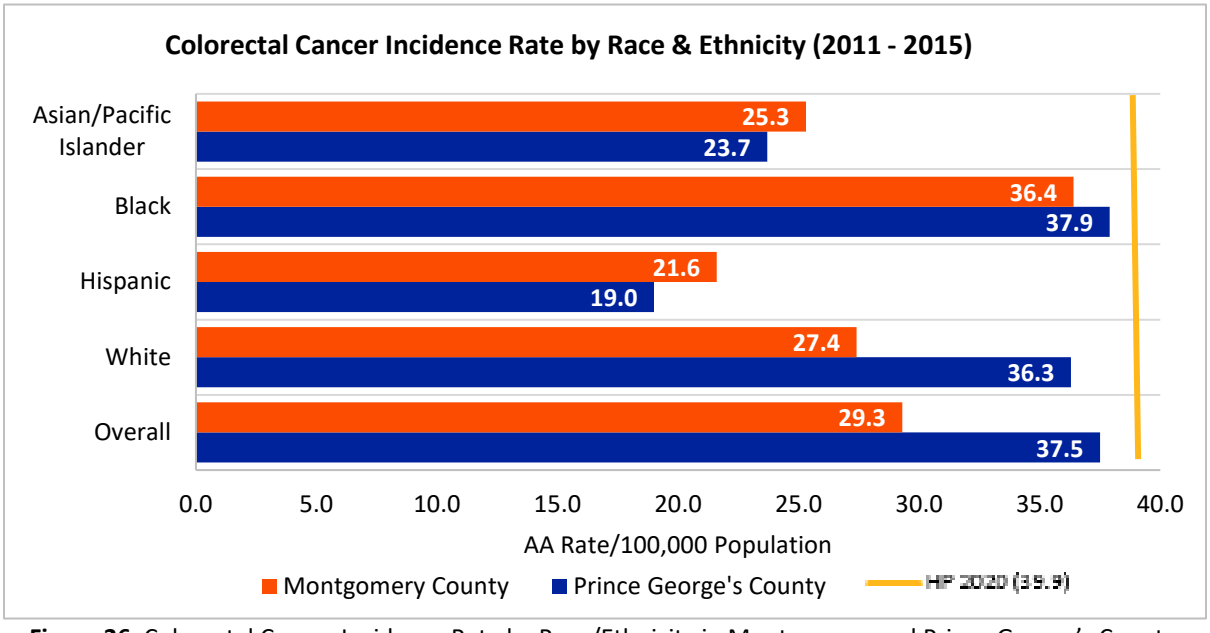


Figure 26. Colorectal Cancer Incidence Rate by Race/Ethnicity in Montgomery and Prince George's County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

Screening

- In Montgomery County, the percentage of adults aged 50 and over who ever had a sigmoidoscopy or colonoscopy exam increased by nearly 1.0 percent (Figure 27).
- In Prince George's county, the percentage of adults who were screened decreased by 2.3 percent from 2014 to 2016 (Figure 27).

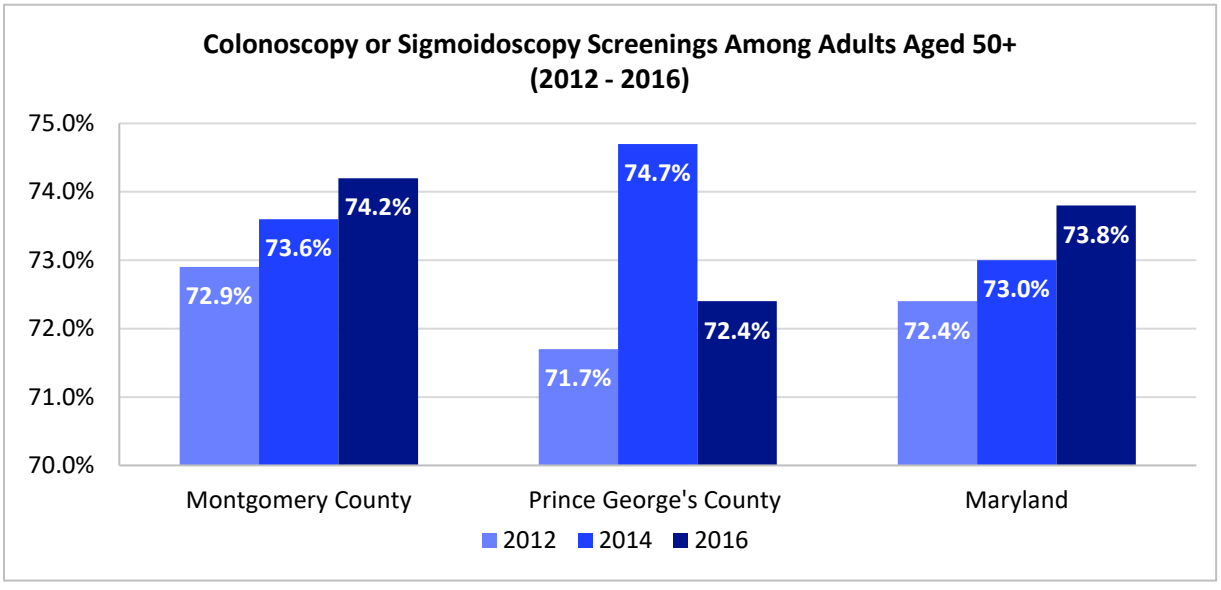


Figure 27. Percentage of Adults aged 50+ who have ever had a Sigmoidoscopy or Colonoscopy Screening in Montgomery and Prince George's Counties, 2012 – 2016
(Source: Healthy Montgomery, 2018)

- In both Montgomery and Prince George's County, adults aged 65+ contributed a larger percentage of colonoscopy or sigmoidoscopy screenings than their 50 to 64-year-old counterparts (Figure 28).
- In both counties, the 65+ groups had higher percentages of screening than the county overall (Figure 28).

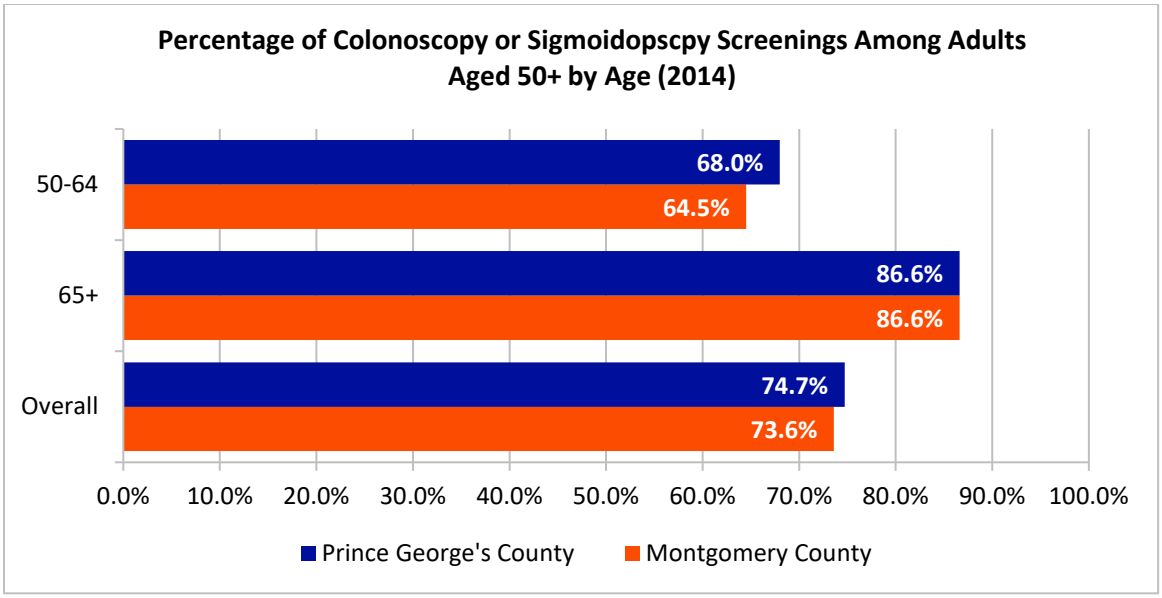


Figure 28. Percentage of Adults aged 50+ who ever had a Sigmoidoscopy or Colonoscopy Screening in Montgomery and Prince George's Counties by Age, 2014
(Source: Healthy Montgomery, 2018)

- In Montgomery and Prince George's County, there was a higher percentage of females than males to receive the screening (Figure 29).
- For both counties, females had a higher percentage of screening than the overall percentage (Figure 29).

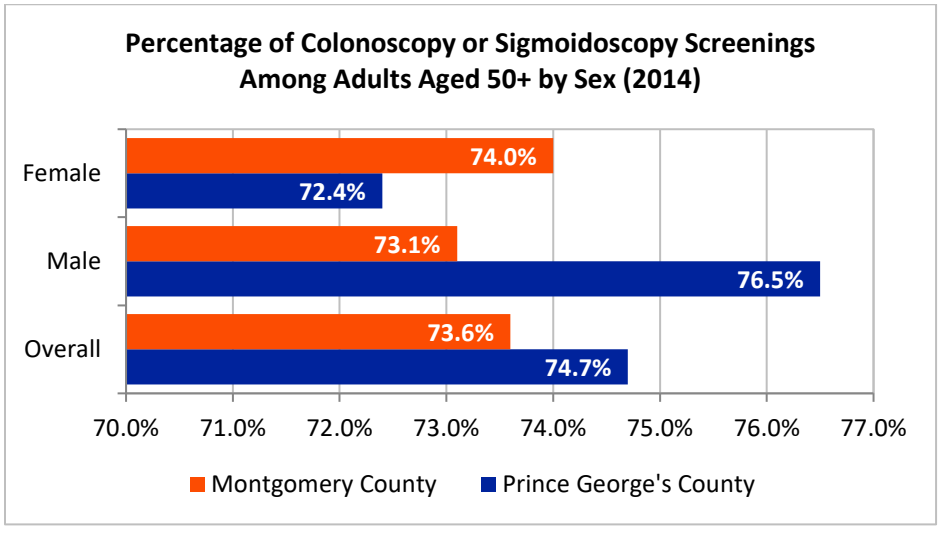


Figure 29. Percentage of Adults aged 50+ who ever had a Sigmoidoscopy or Colonoscopy Screening in Montgomery and Prince George's Counties by Sex, 2014
(Source: Healthy Montgomery, 2018)

- When examining the screening percentages within each county based on race and ethnicity, Montgomery County showed higher percentages of screenings in White individuals as compared to other race and ethnicities, followed by Other, Hispanic, Black, and then Asian (Figure 30).
- In Prince George's County, the Other category had the highest percentage, followed by Hispanic and Black at roughly the same percentage, then White and Asian (Figure 31).

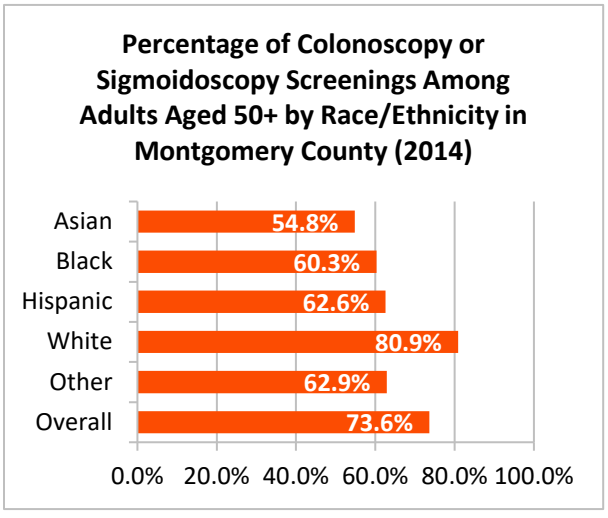


Figure 30. Percentage of Adults aged 50+ that ever had a Sigmoidoscopy or Colonoscopy Exam by Race/Ethnicity in Montgomery County, 2014 (Source: Healthy Montgomery, 2018)

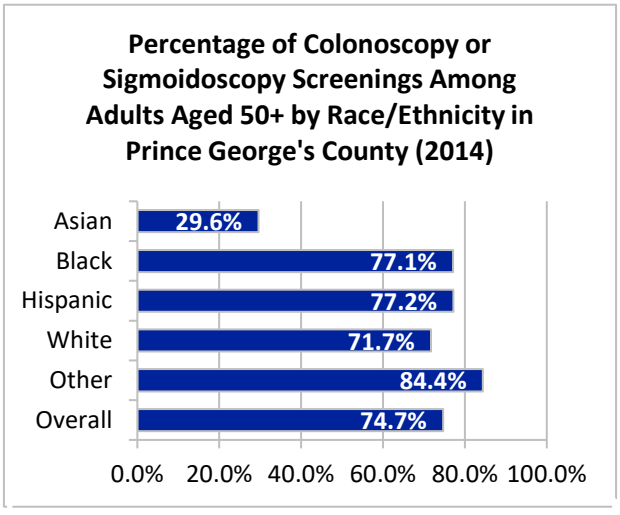


Figure 31. Percentage of Adults aged 50+ that ever had a Sigmoidoscopy or Colonoscopy Exam by Race/Ethnicity in Prince George's County, 2014 (Source: PGC Health Zone, 2018)

- In 2014, there was approximately a 5.0 percent decrease in adults aged 50 and over that ever had a blood stool test within the past two years in Montgomery County. In Maryland, the percentage remained the same (Figure 32).

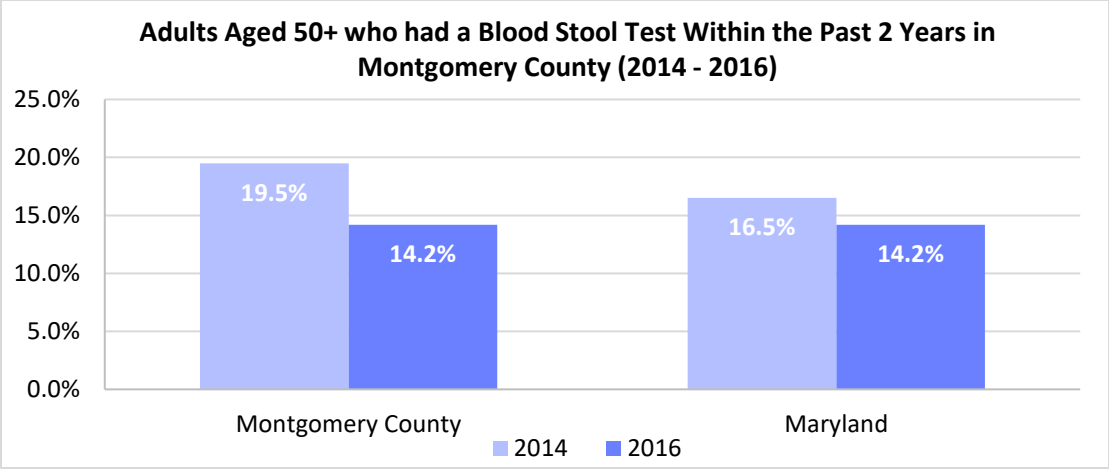


Figure 32. Percentage of Adults aged 50+ that have ever had a Blood Stool Test within the Past 2 Years in Montgomery County, 2014 - 2016
(Source: Healthy Montgomery, 2018)

- In Montgomery County, adults aged 65+ who had a blood stool test in the past two years comprised a larger percentage than their 50 to 64-year-old counterparts (Figure 33).
- The percentages of males versus females who had a blood stool test, within that 50 and over age group, does not differ much from one another with nearly a 1.0 percent difference (Figure 34).

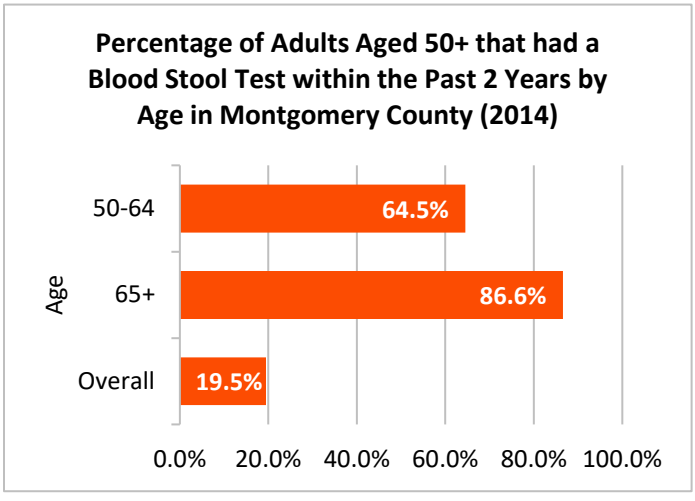


Figure 33. Percentage of Adults aged 50+ that have ever had a Blood Stool Test within the Past 2 Years by Age in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

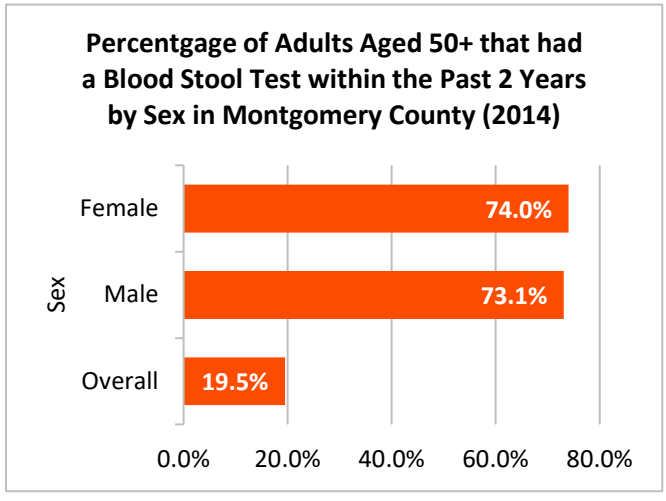


Figure 34. Percentage of Adults aged 50+ that have ever had a Blood Stool Test within the Past 2 Years by Sex in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

Mortality

- Mortality rates due to colorectal cancer decreased in Maryland overall, with Maryland meeting the HP 2020 target for 2010 to 2014 and 2011 to 2015 (Figure 35).
- Montgomery County had the lowest mortality rate and meets the HP 2020 target. However, Prince George's County did not meet the target and had the highest rates overall (Figure 35).

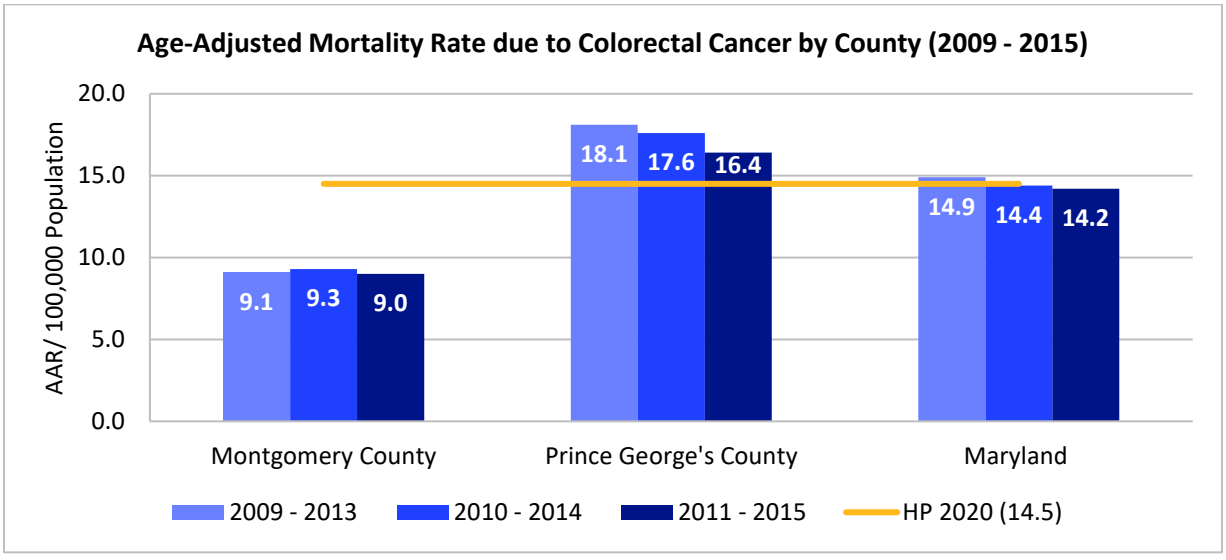


Figure 35. Age-Adjusted Mortality rate due to Colorectal Cancer in Montgomery County, Prince George's County, and Maryland, 2009 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- When examining mortality rates due to colorectal cancer by race and ethnicity, Black individuals in both counties had the highest mortality rates when compared to other racial groups (Figure 36).
- Montgomery County met the HP 2020 target for all subcategories of race and ethnicity. The lowest mortality rates were seen in Hispanics (Figure 36).
- For the data available in Prince George's County, no category met the HP 2020 target (Figure 36).

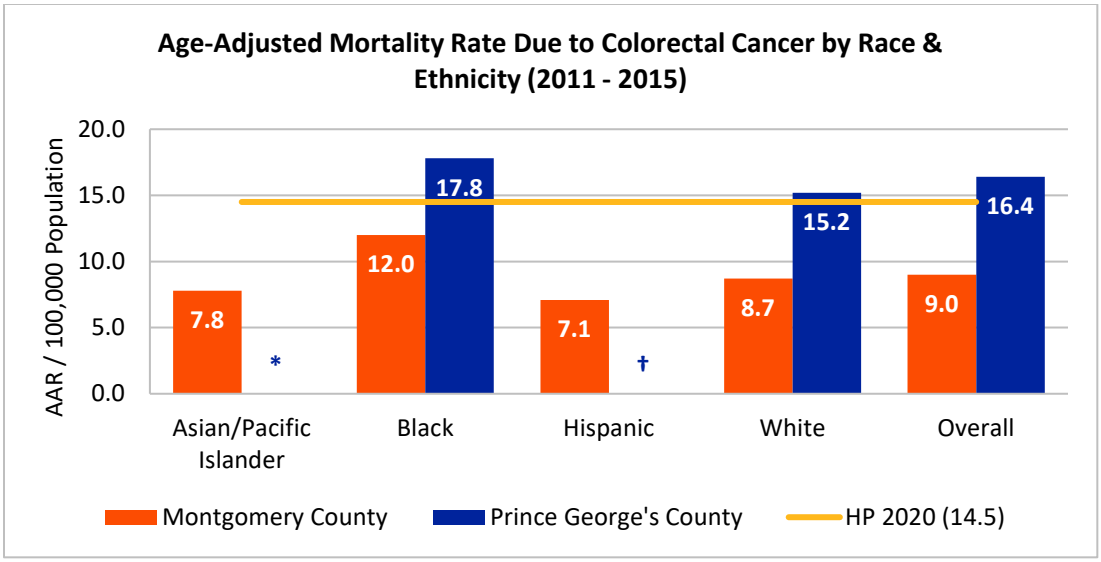


Figure 36. Age-Adjusted Mortality rate due to Colorectal Cancer by Race & Ethnicity in Montgomery and Prince George's County, 2011 – 2015
*†Data not available/not applicable
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- In Montgomery County, both males and females met the HP 2020 target; however, males in Prince George's County had nearly 2X the age-adjusted mortality rate when compared to Montgomery County (Figure 37).
- Males overall had the highest age-adjusted mortality rate in both counties (Figure 37).

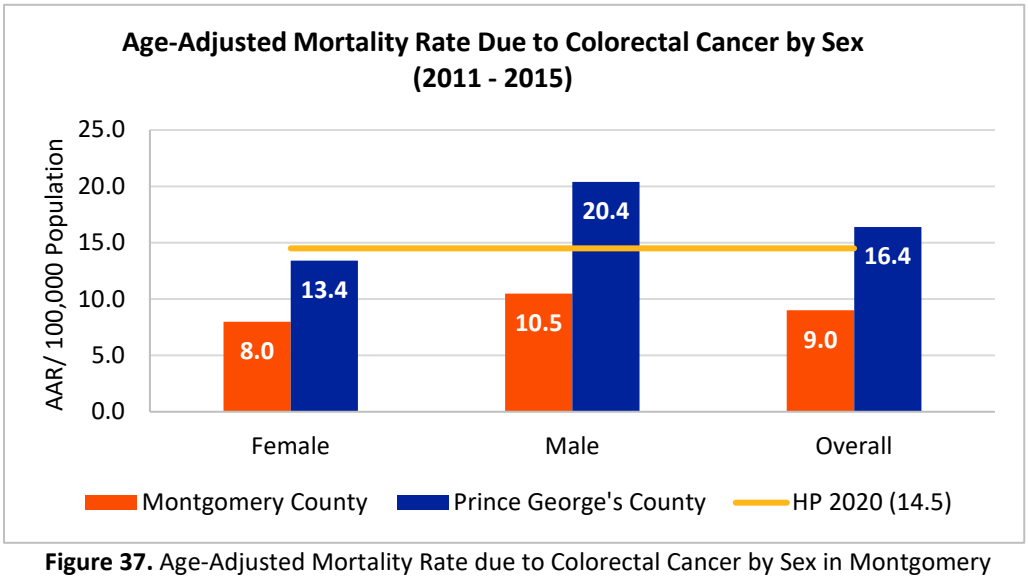


Figure 37. Age-Adjusted Mortality Rate due to Colorectal Cancer by Sex in Montgomery and Prince George's County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

4.4 Prostate Cancer

Incidence

- The incidence of prostate cancer in the state of Maryland steadily decreased after 2009. The same trend is true for Montgomery County and Prince George's County specifically (Figure 38).
- Compared to Prince George's County and the state overall, Montgomery County had the lowest incidence rates for prostate cancer (Figure 38).

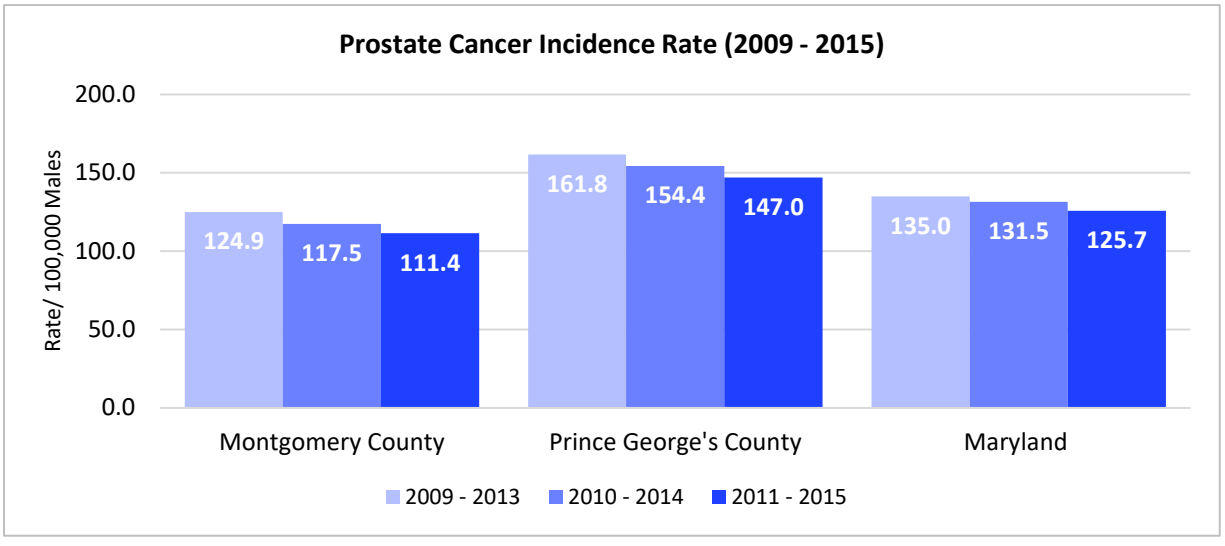


Figure 38. Age-Adjusted Incidence Rate for Prostate Cancer in Montgomery County, Prince George's County, and Maryland, 2009 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- For both Montgomery and Prince George's County, Black individuals had the highest incidence rates for prostate cancer, and in both cases those rates are much higher than the overall rate for the county. Among other subgroups, White individuals followed by Hispanics had the next highest incidence rate (Figure 39).
- In Montgomery County, specifically, the incidence rate for Black individuals was nearly 2X the overall county rate (Figure 39).

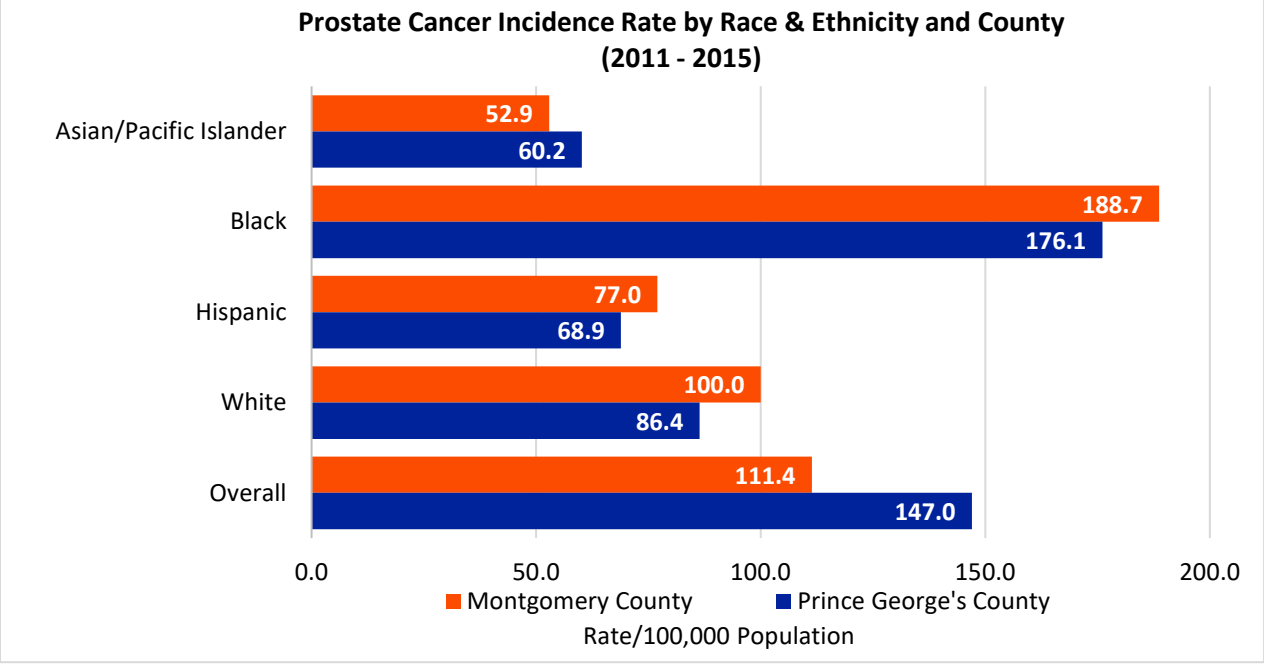


Figure 39. Age-Adjusted Incidence Rate for Prostate Cancer by Race/Ethnicity in Montgomery County, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

Mortality

- The mortality rate due to prostate cancer had a decreasing trend in both Maryland overall and in Prince George's County. However, Montgomery County had a minor 0.4 increase from 2010 to 2015 (Figure 40).
- Since 2009, Maryland and Montgomery County consistently met the HP 2020 target. Prince George's County; however, did not met the HP 2020 target (Figure 40).

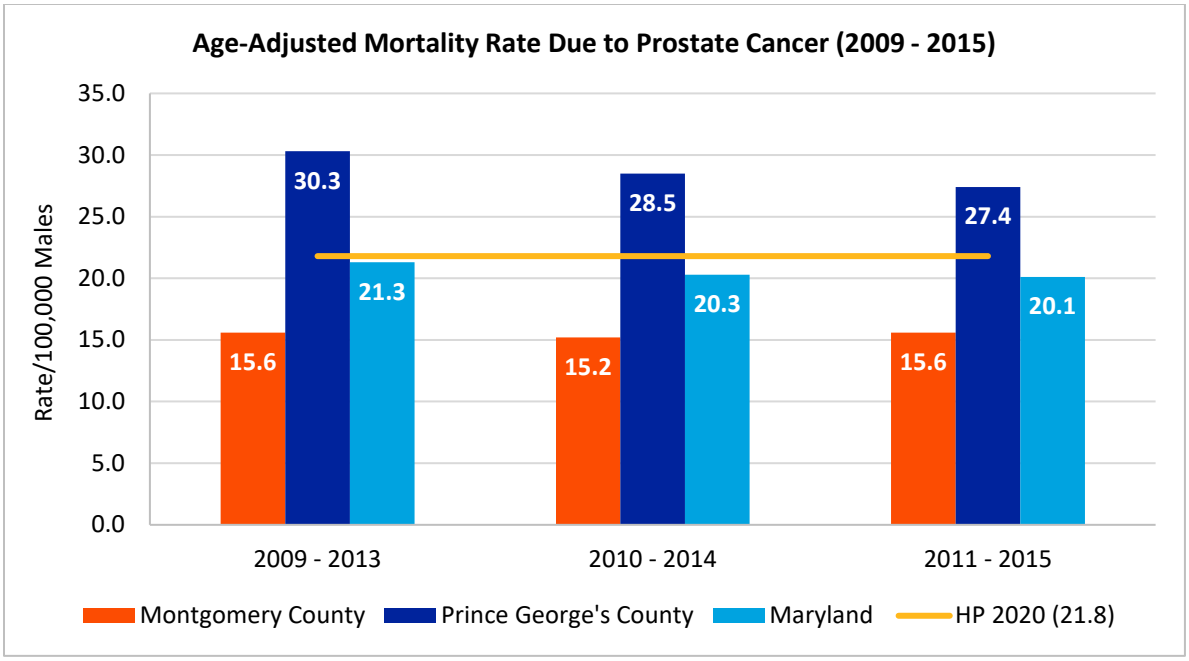


Figure 40. Age-Adjusted Mortality rate Due to Prostate Cancer in Montgomery County, Prince George's County, and Maryland, 2011 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- In both Montgomery and Prince George's County, Black individuals had the highest mortality rates due to prostate cancer. Montgomery County had nearly 2X the mortality rate than the overall rate and Prince George's County had 1.3X the overall mortality rate (Figure 41).

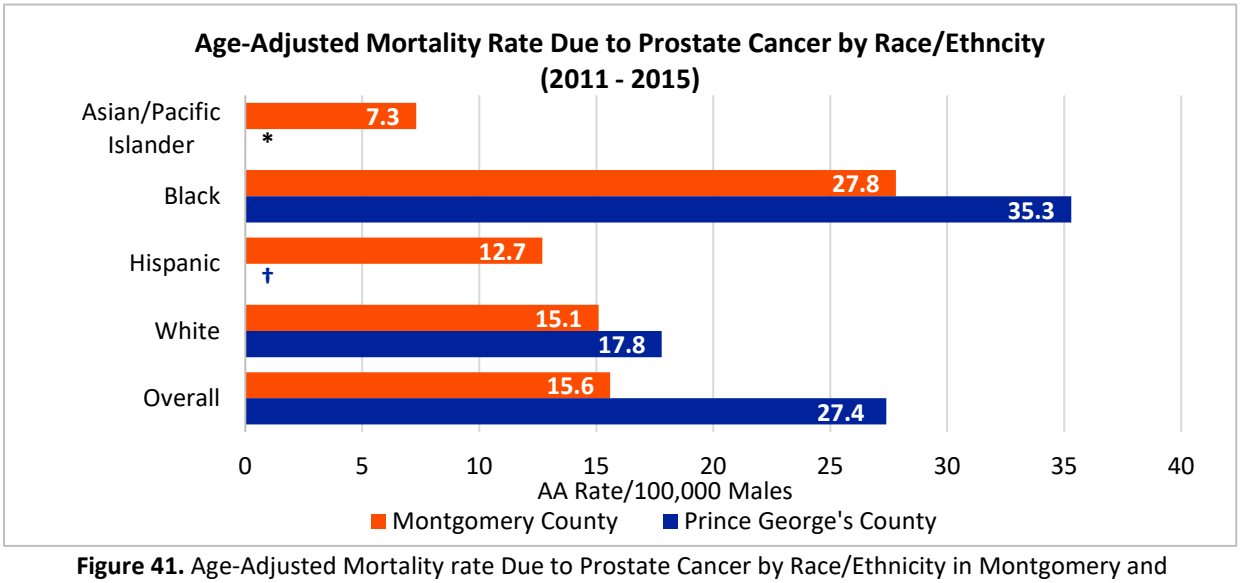


Figure 41. Age-Adjusted Mortality rate Due to Prostate Cancer by Race/Ethnicity in Montgomery and Prince George's County, 2011 – 2015
*†Data not available/not applicable
(Source: Healthy Montgomery & PGC Health Zone, 2018)

4.5 Cervical Cancer

Incidence

- In Maryland, the incidence rate for cervical cancer among females decreased over time (Figure 42).
- Montgomery County maintained significantly lower incidence rates when compared to Prince George's County and the state overall. However, the rates for both Prince George's County and the state remained stable for the past five years (Figure 42).
- Prince George's County had a decreasing trend for cervical cancer incidence rate from 2008 to 2015 (Figure 42).
- Both counties and the state met the HP 2020 target for the most recent data year (Figure 42).

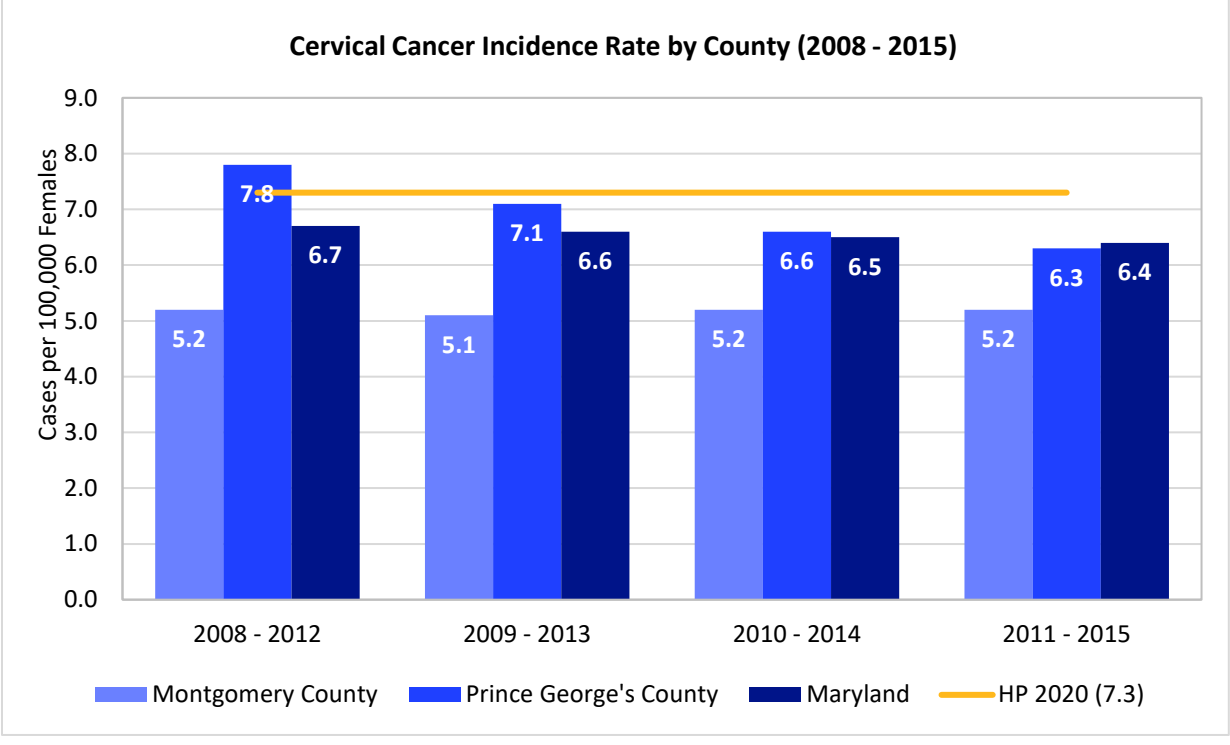


Figure 42. Age-Adjusted Incidence Rate for Cervical Cancer in Montgomery County, Prince George's County, and Maryland, 2008 – 2015
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- Among population subgroups in both Montgomery and Prince George's County, Hispanic women had the highest incidence rate of cervical cancer and surpass the HP 2020 target and the overall rate for the counties (Figure 43).
- In Prince George's County, specifically, Hispanic women had nearly 2X the cervical cancer incidence rate when compared to the overall rate for the county (Figure 43).
- In Montgomery County, the HP 2020 target was met overall; Black and White women had lower rates than Hispanics. In Prince George's County, the HP 2020 target was not met by any subgroup besides Black women. White women had the second highest incidence rate in the county (Figure 43).

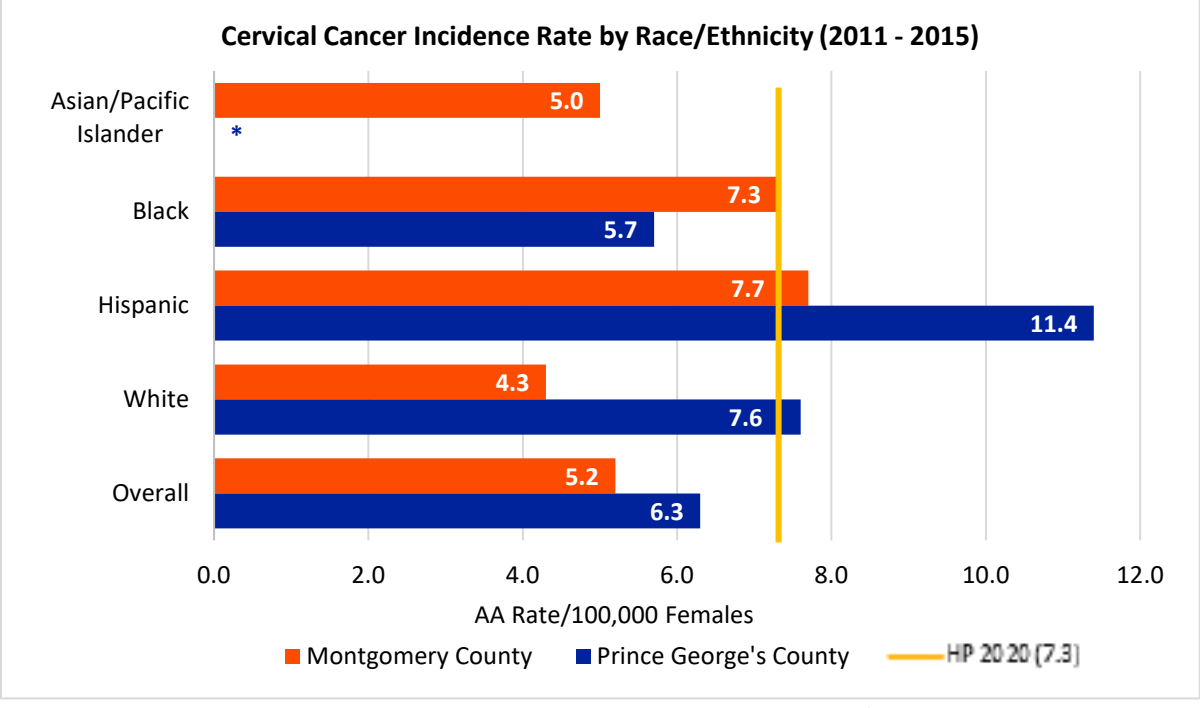


Figure 43. Age-Adjusted Incidence Rate for Cervical Cancer by Race/Ethnicity in Montgomery and Prince George's County , 2011 – 2015
*Data not available/not applicable
(Source: Healthy Montgomery & PGC Health Zone, 2018)

Screening

- When looking at pap smear screening rates for women aged 18 and over, both counties and Maryland had a significant percent increase since 2014 (Figure 44).
- Both counties and the state met the HP 2020 target in 2016 (Figure 44).

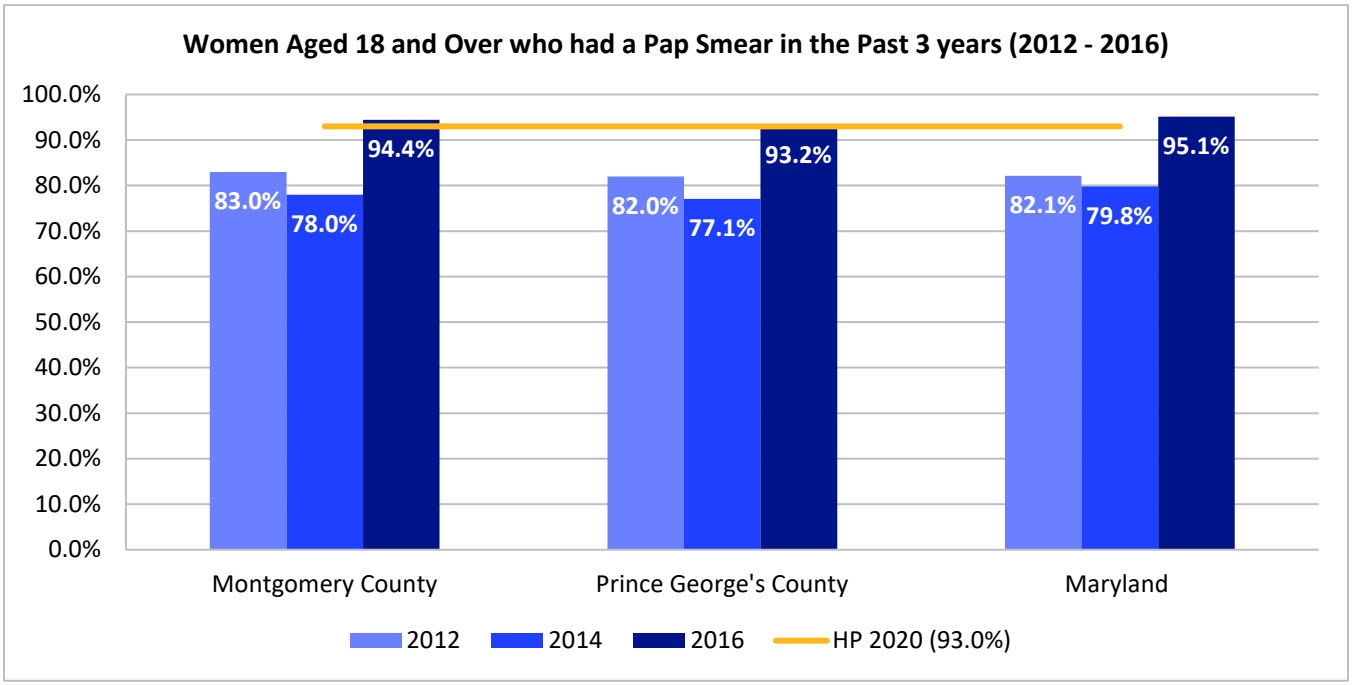


Figure 44. Percentage of Females aged 18 and over that had a Pap Smear in the past 3 Years in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: Healthy Montgomery & PGC Health Zone, 2018)

- For both Montgomery and Prince George's County, the age groups with the highest percentage of pap testing were individuals between the ages of 46 to 64, followed by 18 to 44, and then 65 and older (Figure 45 and 46).

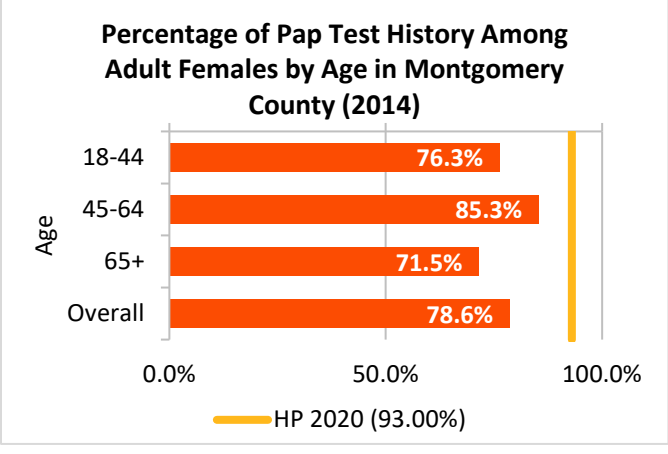


Figure 45. Percentage of Females aged 18 and over that had a Pap Smear in the past 3 years by Age in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

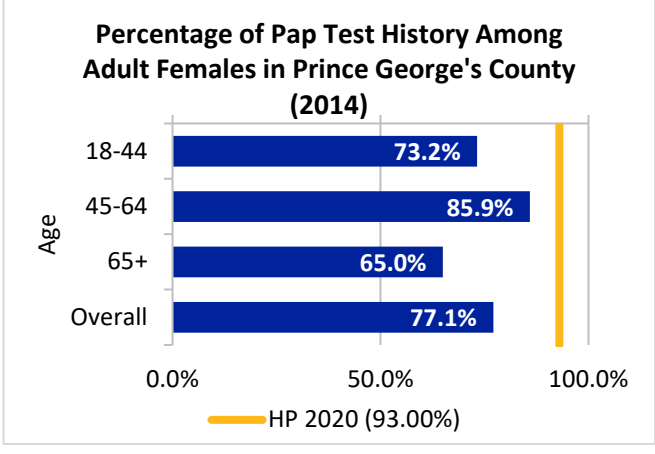


Figure 46. Percentage of Females aged 18 and over that had a Pap Smear in the past 3 years by Age in Prince George's County, 2014
(Source: PGC Health Zone, 2014)

- When reviewing females aged 18 and over that had a pap smear in the past 3 years, by race and ethnicity, both Montgomery and Prince George's County had no groups meet the HP 2020 target (Figure 46 and 47).
- In Montgomery County, the group with the highest percentage of females tested were White women followed by Hispanic, Black, Asian, and Other.
- In Prince George's County, the highest percentage was among Black females followed by Hispanic, Other, and Asian women (Figure 47).

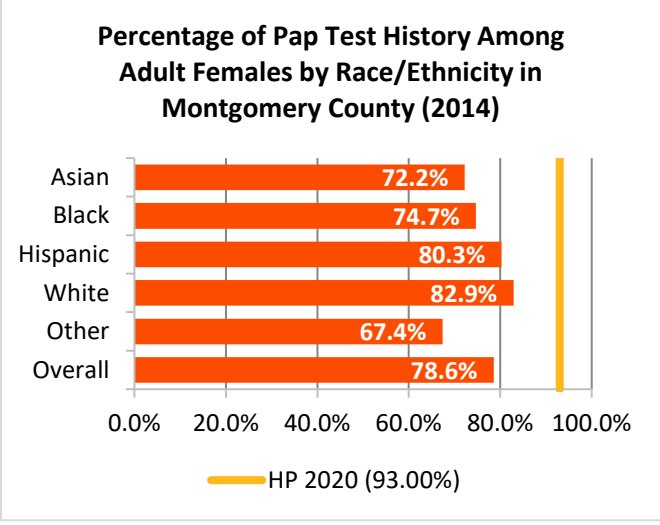


Figure 47. Percentage of Females aged 18 and over that had a Pap Smear in the past 3 years by Race/Ethnicity in Montgomery County, 2014
(Source: Healthy Montgomery, 2014)

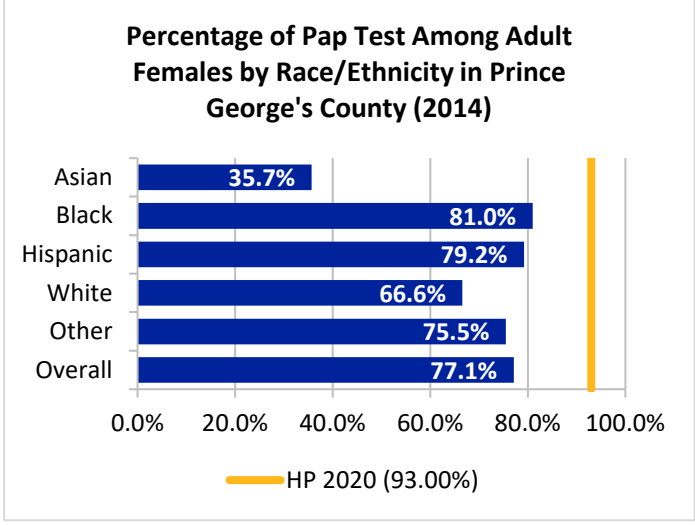


Figure 48. Percentage of Females aged 18 and over that had a Pap Smear in the past 3 years by Race/Ethnicity in Prince George's County, 2014
(Source: PGC Health Zone, 2014)

4.6 Skin Cancer

Incidence

- Compared to previous years, the rates for melanoma of the skin (all stages) increased slightly in Montgomery County and Maryland (Figure 49).
- In Prince George's County, the rates fell from 6.6 to 6.1 per 100,000 from 2012 to 2016 (Figure 49).
- Overall, Prince George's county had a significantly lower incidence rate than Montgomery County and the state (Figure 49).

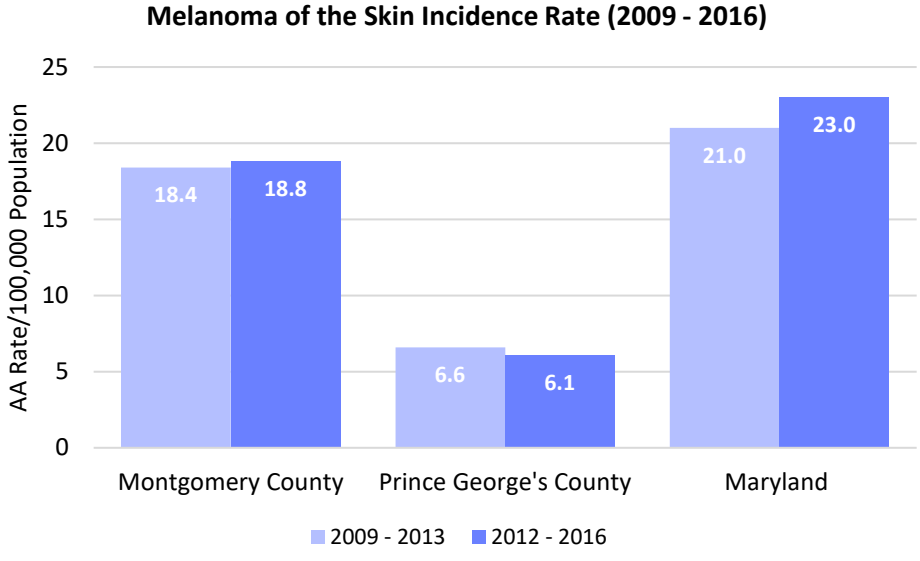


Figure 49. Melanoma of the Skin Incidence Rate in Montgomery County, Prince George's County, and Maryland, 2009 – 2016
(Source: State Cancer Profiles, 2019)

- In both Montgomery and Prince George's County, skin cancer incidence rates were higher among men when compared to women (Figure 50).

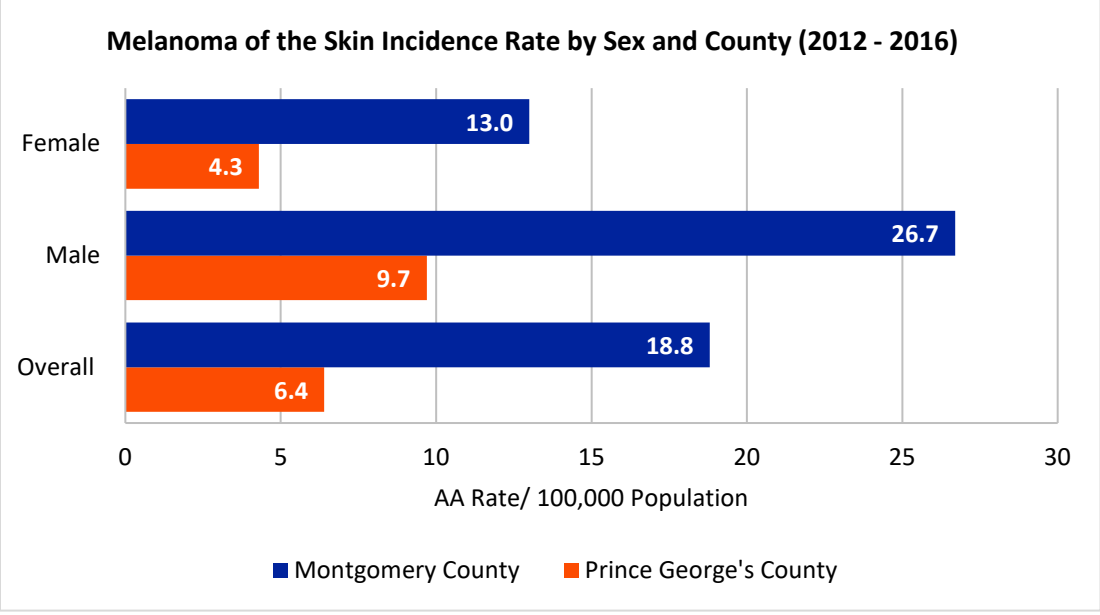


Figure 50. Melanoma of the Skin Incidence Rate by Sex in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

- In both counties and Maryland, melanoma of the skin incidence rate was highest among individuals aged 65+ and 50+ (Figure 51).
- In Montgomery County, individuals aged 65+ had a 17X higher incident rate than those aged <50; in Prince George's County, the rate is 29X greater than individuals <50 (Figure 51).

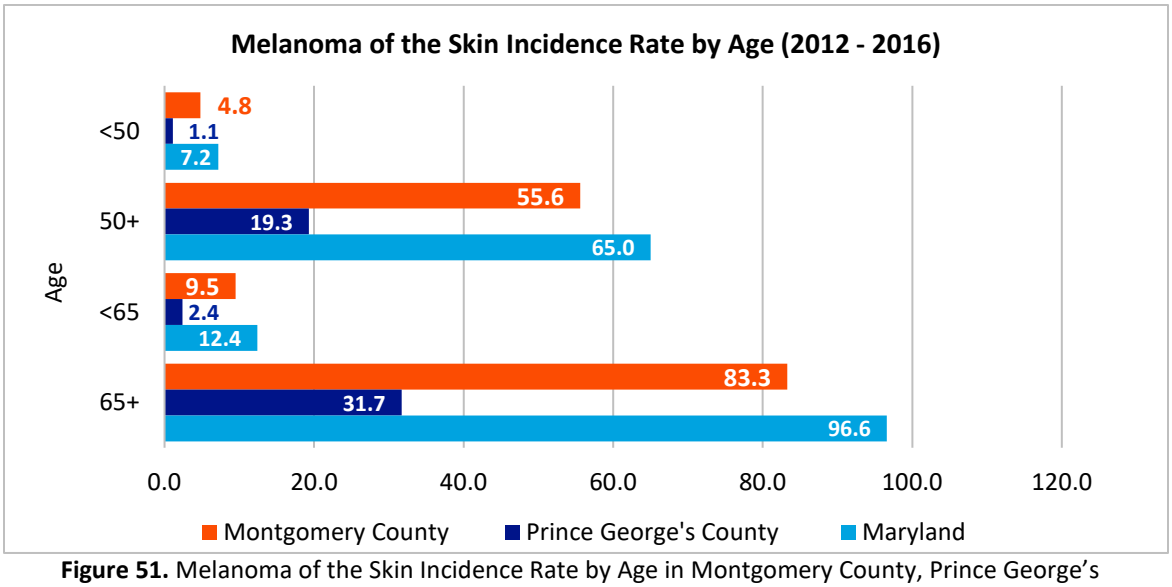


Figure 51. Melanoma of the Skin Incidence Rate by Age in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

- When looking at melanoma of the skin by race/ethnicity in Montgomery County, White individuals (26.1 per 100,000) had an incidence rate nearly 6X greater than that of Hispanics (4.5 per 100,000) (Figure 52).
- In Prince George's County, White individuals (19.4 per 100,000) had an incidence rate 3X greater than that of the overall rate for the county (6.1 per 100,000) (Figure 52).

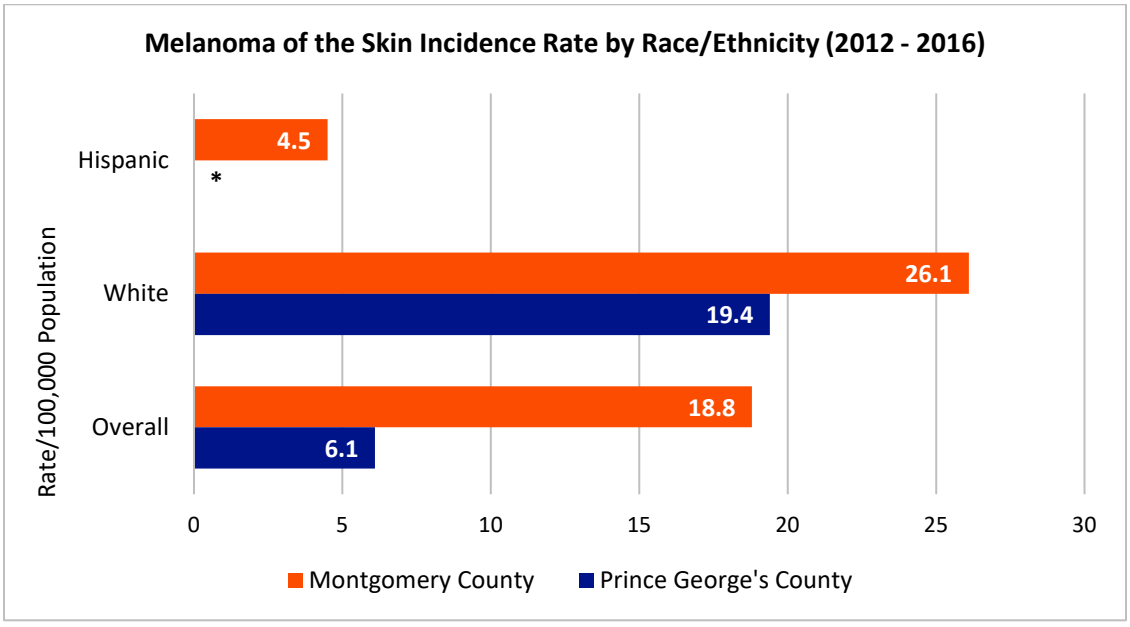


Figure 52. Melanoma of the Skin Incidence Rate by Race/Ethnicity in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
*Data not available/not applicable
(Source: State Cancer Profiles, 2019)

Mortality

- In Maryland and both counties, the mortality rates associated with melanoma of the skin have remained stable and meet the HP 2020 target of 2.4 per 100,000 (Figure 53).
- When looking at the mortality rate for melanoma of the skin by age, individuals aged 65+ had the highest mortality rate followed by individuals 50+ for both counties and the state (Figure 54).

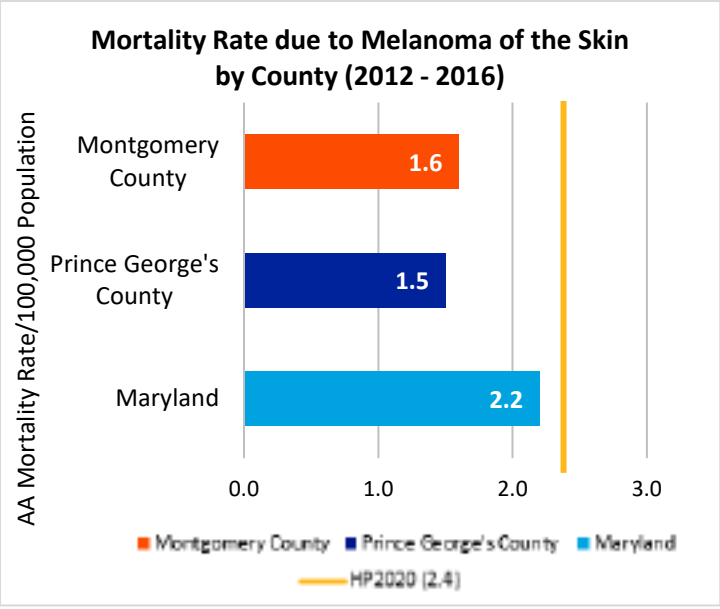


Figure 53. Melanoma of the Skin Mortality Rate in Montgomery County, Prince George's County, and Maryland, 2012 – 2016.
(Source: State Cancer Profiles, 2019)

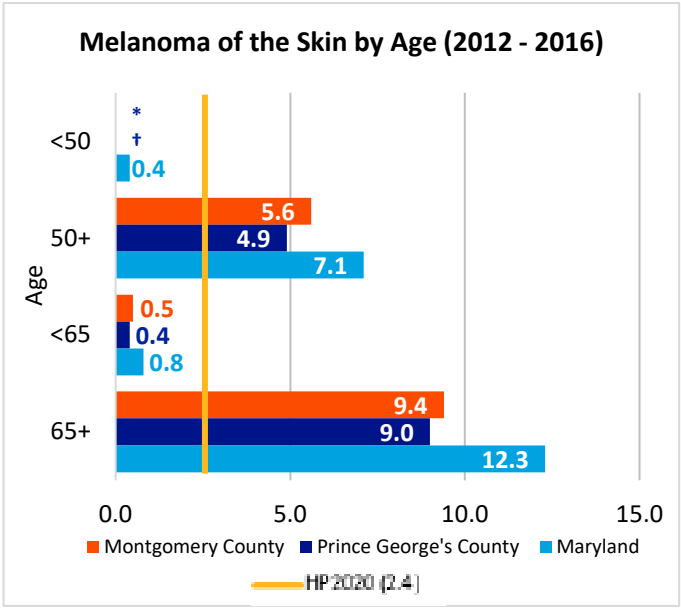


Figure 54. Melanoma of the Skin Mortality Rate by Age in Montgomery County, Prince George's County, and Maryland, 2012 – 2016.
*†Data not available/not applicable
(Source: State Cancer Profiles, 2019)

- In both Montgomery and Prince George's County, females had lower mortality rates than males for melanoma of the skin (Figure 55 and 56).
- In Montgomery County, the mortality rate for males was approximately 2X greater than of their female counterparts; it was 3.5X the rate of females in Prince George's County.
- The HP 2020 target was met for women in both counties and males in Montgomery County. The target was not met for males in Prince George's County (Figures 55 and 56).

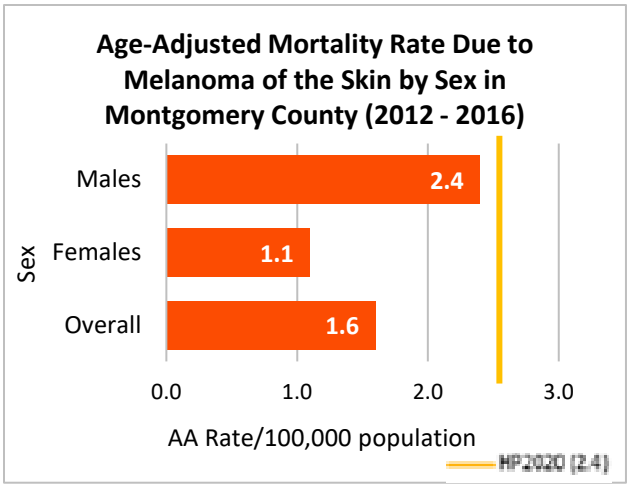


Figure 55. Age-Adjusted Mortality Rate due to Melanoma of the Skin by Sex in Montgomery County, 2012 – 2016
(Source: State Cancer Profiles, 2019)

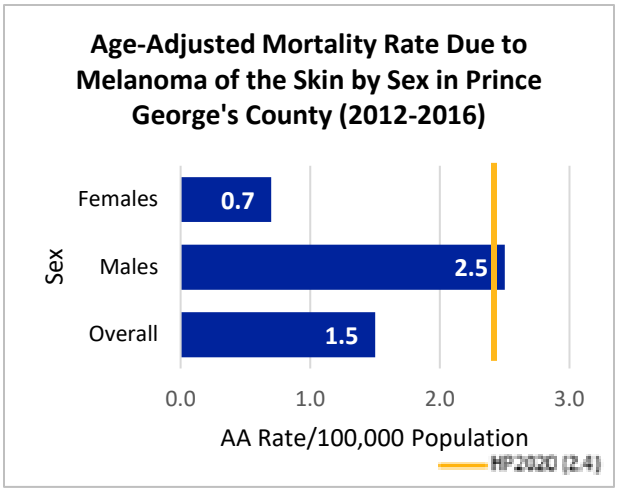


Figure 56. Age-Adjusted Mortality Rate due to Melanoma of the Skin by Sex in Prince George's County, 2012 – 2016
(Source: State Cancer Profiles, 2019)

4.7 Oral Cancer

Incidence

- When comparing both counties and the state overall, Maryland followed by Montgomery County has a higher oral cancer incidence rate than Prince George's County (Figure 57).

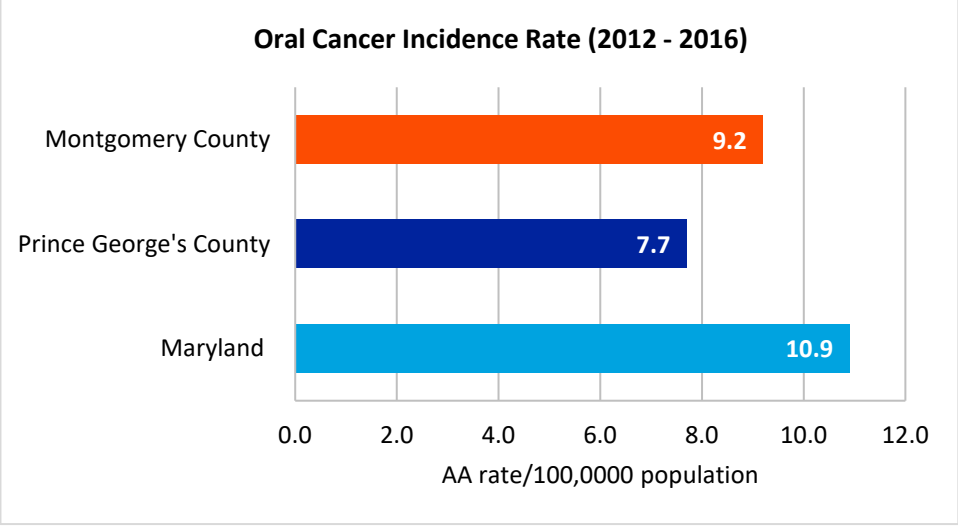


Figure 57. Oral Cancer Incidence Rate by County, 2012 – 2016
(Source: State Cancer Profiles, 2019)

- In both counties, males were more likely to have oral cancer than females. In Montgomery County, both males and females had higher incidence rates when compared to Prince George's County (Figure 58).
- When looking at oral cancer in terms of race/ethnicity, White individuals had the highest incidence rate of oral cancer, followed by Asian, Black and Hispanic for both counties (Figure 59).

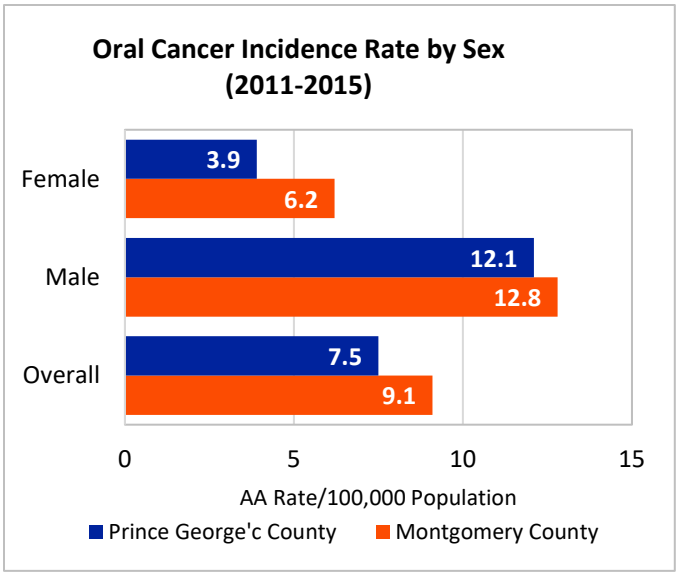


Figure 58. Oral Cancer Incidence Rate by Sex, 2012 – 2016
(Source: State Cancer Profiles, 2019)

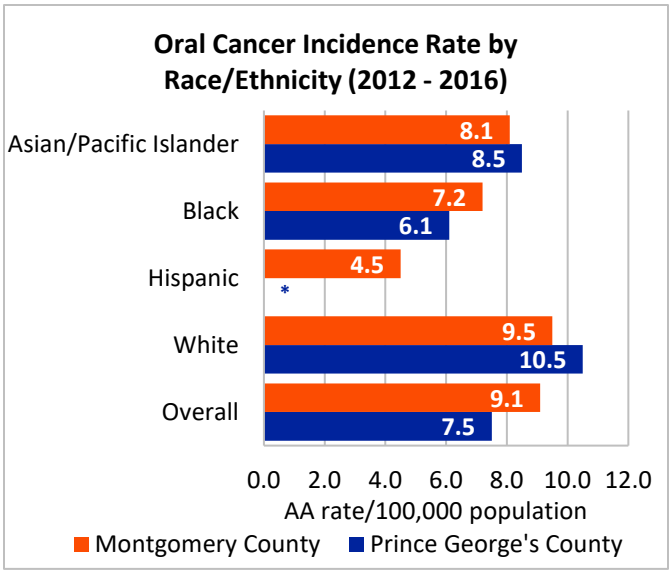


Figure 59. Oral Cancer Incidence Rate by Race/Ethnicity, 2012 – 2016
*Data not available/not applicable
(Source: State Cancer Profiles, 2019)

Mortality

- In both counties and Maryland overall, the mortality rates of oral cancer remained relatively stable over the past several years (Figure 60).
- Montgomery County continuously met the HP 2020 target; Prince George's County and Maryland did not (Figure 60).

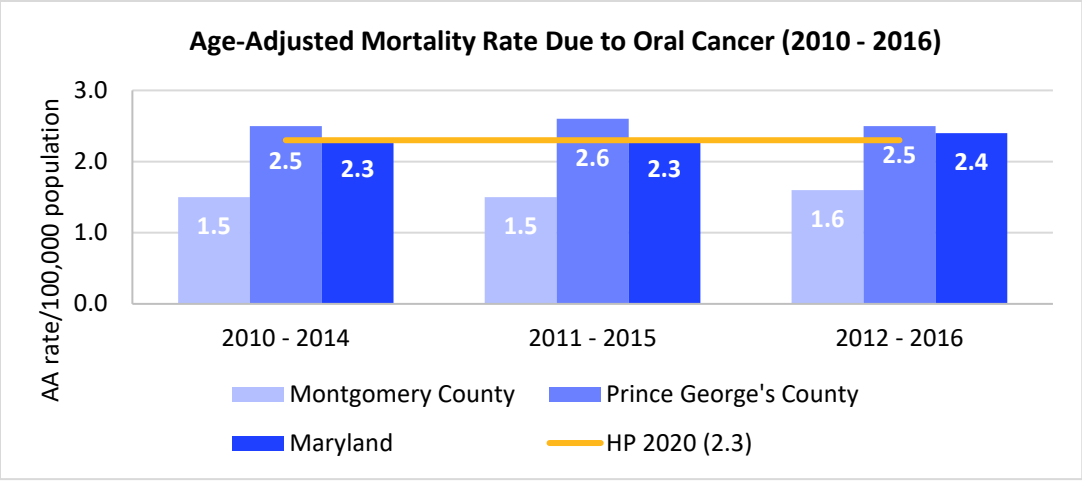


Figure 60. Age-Adjusted Mortality Rate due to Oral Cancer in Montgomery County, Prince George's County, and Maryland, 2010 – 2016
(Source: State Cancer Profiles, 2019)

- In both counties, males had a higher mortality rate due to oral cancer than females. Males in Prince George's County, specifically, had a rate 3X higher than that of their female counterparts (Figure 61).
- The rate for both genders in Montgomery County met the HP 2020 target. In Prince George's County, the mortality rate among men met the HP 2020 target, but the rate for women did not (Figure 61).

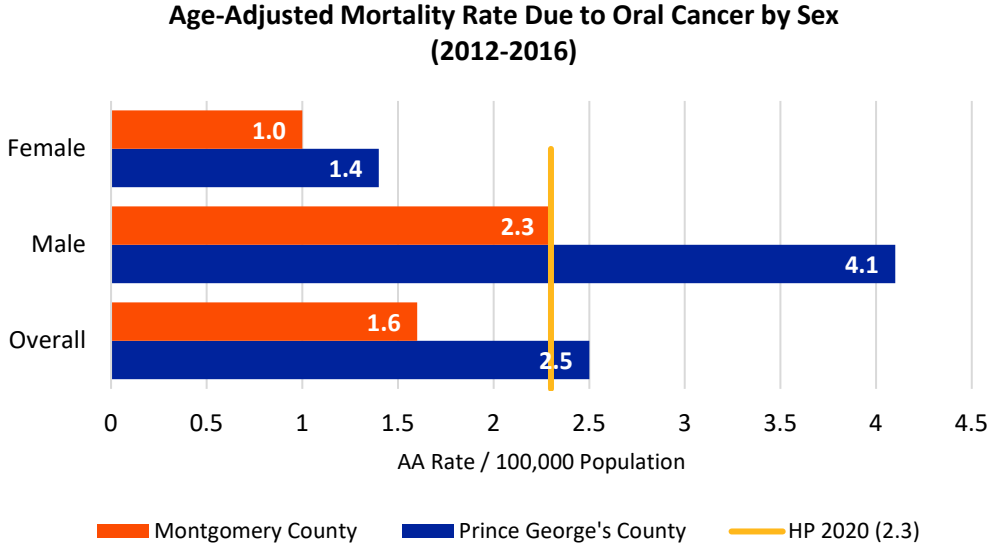


Figure 61. Age-Adjusted Mortality Rate by Sex in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

4.8 Thyroid Cancer

Incidence

- The incidence rate for thyroid cancer in Montgomery County was 1.3X higher than that of the state overall, while the rate in Prince George's County was lower than both (Figure 62).

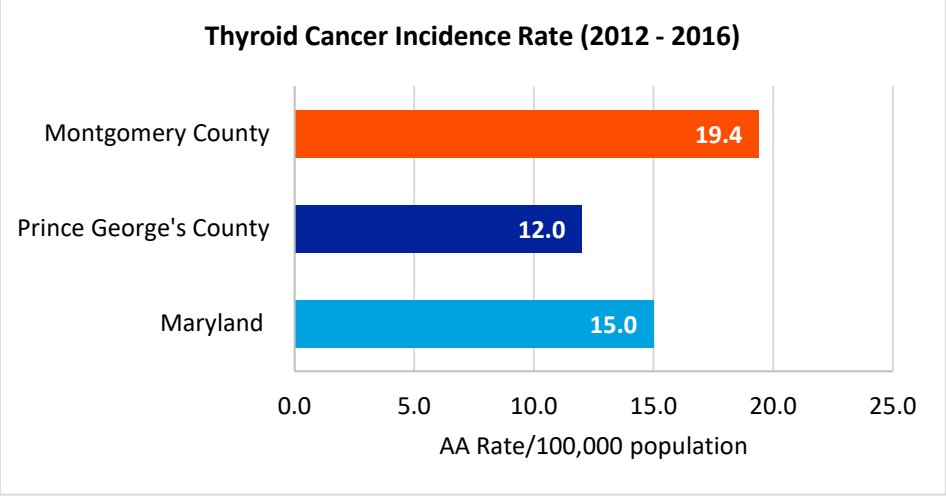


Figure 62. Thyroid Cancer Incidence Rate in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

- When looking at incidence rate of thyroid cancer by sex, in both counties, females had a rate 3X higher than that of males (Figure 63).
- In both Montgomery and Prince George's County, Asian/Pacific Islanders followed by White individuals had the highest thyroid cancer incidence rates. (Figure 64).

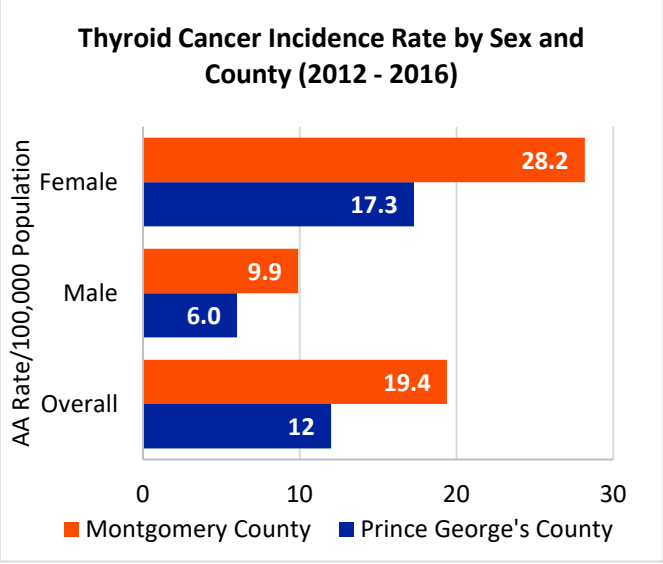


Figure 63. Thyroid Cancer Incidence Rate by Sex in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

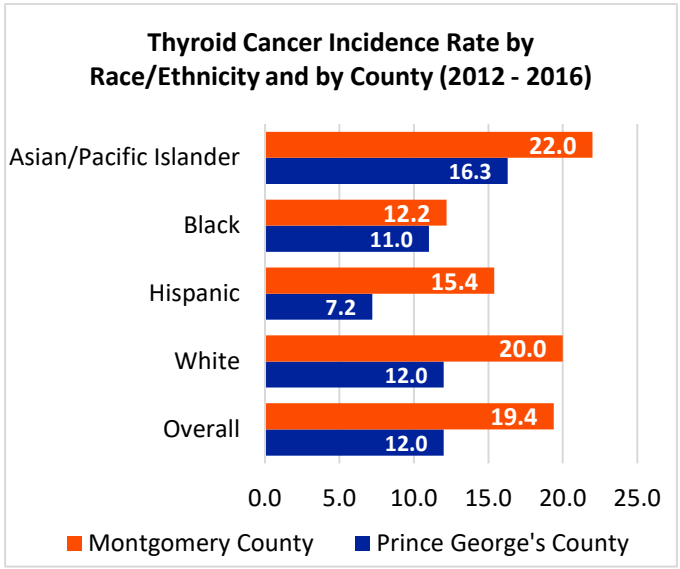


Figure 64. Thyroid Cancer Incidence Rate by Race/Ethnicity in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

Mortality

- From 2012 to 2016, the mortality rate for thyroid cancer in Maryland overall was consistent with the rate in both Montgomery and Prince George's County (Figure 65).

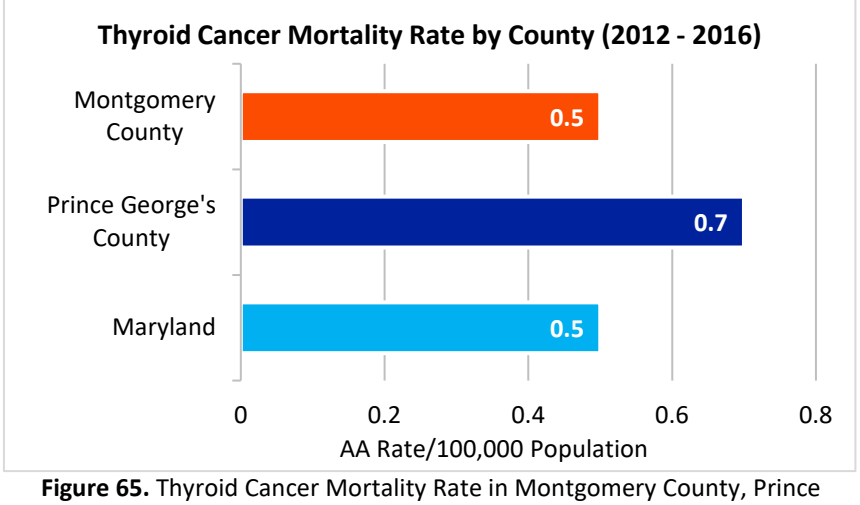


Figure 65. Thyroid Cancer Mortality Rate in Montgomery County, Prince George's County, and Maryland, 2012 – 2016
(Source: State Cancer Profiles, 2019)

Community Resources

Cancer resources and services in Adventist HealthCare's Rehabilitation Hospital Medical Center's Community Benefit Service Area are provided in various settings ranging from local physician practices, hospitals, and clinics, to county services. Diagnosis and treatment are provided by all hospitals in Montgomery County, the safety net clinics, and many physicians specializing in oncology care. Some of the services are targeted to specific types of cancer as well as to individuals who are most at-risk and needing prevention, screening, and/or treatment. The following is a listing of various services and providers:

1. **ADVENTIST HEALTHCARE (AHC)**
   Adventist HealthCare White Oak Medical Center Oncology Program
   Address: 12100 Plum Orchard Dr, Silver Spring, MD 20904
   Phone: 301-891-7600
   Website:
   https://www.adventisthealthcare.com/services/cancer/

   AHC Community Classes & Events – various cancer related classes are offered to patients, family members, and the community such as Eat Well for Health: Nutrition & Cooking Class for Cancer Patients. To learn more about the classes offered and to register please visit the website below.
   Phone: 1-800-542-5096
   Website:
   https://www.adventisthealthcare.com/calendar/

   Shady Grove Adventist Aquilino Cancer Center
   Address: 9905 Medical Center Drive, Rockville, MD 20850
   Phone: 240-826-6297
   Website:
   https://www.adventisthealthcare.com/locations/profile/shady-grove-adventist-aquilino-cancer-center/
2. **HOPE CONNECTIONS FOR CANCER SUPPORT**
   Address: 8401 Corporate Dr, Suite 100, Landover, MD 20785
   Phone: 240-714-4744
   Website:
   https://hopeconnectionsforcancer.org/
3. **WOMEN'S CANCER CONTROL PROGRAM**
   Phone: 240-777-1750
   Website:
   https://www.montgomerycountymd.gov/
4. **COLORECTAL CANCER SCREENING**
   Address: 1401 Rockville Pike, Rockville, MD 20852
   Phone: 240-777-1222
   Website:
   https://www.montgomerycountymd.gov/HHS-program/Program.aspx?id=PHS/PHSCancerscreen-p262.html

5. **STOP SMOKING**
   Address: 1401 Rockville Pike, Rockville, MD 20852
   Phone: 240-777-1222
   Website: https://www.montgomerycountymd.gov/HHS-Program/Program.aspx?id=PHS/PHSTobaccoStopPrevent-p296.html

6. **MARYLAND BREAST AND CERVICAL CANCER PROGRAM**
   Phone: 1-800-477-9774
   Website: https://phpa.health.maryland.gov/cancer/Pages/bccp_home.aspx

7. **DOCTORS COMMUNITY HOSPITAL**
   Address: 8118 Good Luck Road, Lanham, MD 20706
   Phone: 1-800-477-9774
   Website: https://www.dchweb.org/

   Support Services
   Website: https://www.dchweb.org/specialties-services/center-comprehensive-breast-care/support-services

   Free Colonoscopy
   Phone: 301-552-7705
   Website: https://www.dchweb.org/about-us/free-colorectal-screenings

   Free Breast and Cervical Screenings
   Phone: 301-552-7724
   Website: https://www.dchweb.org/about-us/community-events/free-breast-and-cervical-screenings

   Look Good Feel Better
   Website: http://lookgoodfeelbetter.org/

8. **CAMP KESEM**
   Phone: 253-736-3821
   Email: support@campkesem.org
   Website: https://www.campkesem.org/

9. **CANCER + CAREERS**
   Phone: 646-929-8032
   Email: cancerandcareers@cew.org
   Website: https://www.cancerandcareers.org/en

10. **AMERICAN CANCER SOCIETY – MARYLAND**
    Website: https://www.cancer.org/about-us/local/maryland.html

11. **AFRICAN AMERICAN HEALTH PROGRAM – CANCER**
    Address: 14015 New Hampshire Avenue, Silver Spring, MD 20904
    Phone: 240-777-1833
    Email: info@aahpmontgomerycounty.org
    Website: http://aahpmontgomerycounty.org/cancer

12. **AMERICAN CHILDHOOD CANCER ORGANIZATION**
    Address: 6868 Distribution Drive, Beltsville, MD 20705
    Phone: 301-962-3520
    Website: https://www.acco.org/

13. **PROSTATE CANCER FOUNDATION**
    Phone: 310-570-4700
    Email: info@pcf.org
    Website: https://www.pcf.org/

14. **MONTGOMERY HOSPICE**
    Address: 1355 Piccard Drive, Suite 100 Rockville, MD 20850
    Phone: 301-921-4400
    Website: https://www.montgomeryhospice.org/

15. **THYCA THYROID CANCER SURVIVORS' ASSOCIATION**
    Address: 2604 Thistledown Terrace, Olney, MD 20832
    Phone: 301-943-5419
    Email: gbloom@thyca.org
    Website: https://montgomerycountymd.galaxydigital.com/agency/detail/?agency_id=76813

16. **FOOD & FRIENDS**
    Address: 219 Riggs Road NE, Washington, D.C. 20011
    Phone: 202-269-2277
    Email: info@foodandfriends.org
    Website: https://foodandfriends.org/

17. **HOLY CROSS HEALTH – CANCER SUPPORT GROUPS & PROGRAMS**
    Website: http://www.holycrosshealth.org/cancer-support-groups-programs

    Lymphedema Support Group
    Phone: 301-754-7340 (Contact Person is Mike Collins)
    Website: http://www.holycrosshealth.org/body.cfm?id=1923&action=detail&ref=21756&limit_topic=Support%20Groups&limit_locationext=

    Support Group for Latinas with Cancer
    Phone: 202-223-9100 (Contact Person is Claudia Campos at Nueva Vida)
    Website: http://www.holycrosshealth.org/cancer-support-groups-programs

    THYCA: Thyroid Cancer Support Group
    Phone: 301-943-5419
    Website: http://www.holycrosshealth.org/body.cfm?id=1923&action=detail&ref=20280&limit_topic=Support%20Groups&limit_locationext=

Section IV: Findings

Part B: Secondary Data

Chapter 5: Cardiovascular Health

5.1: Heart Disease

5.2: Stroke

Cardiovascular Health

KEY FINDINGS

Disparities & Indicators

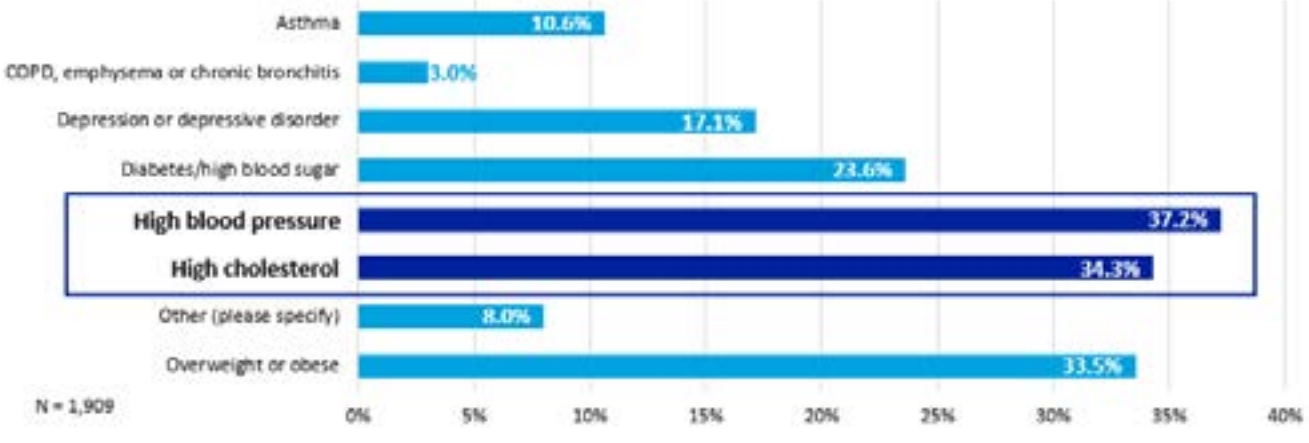
- PGC overall, **males**, **females**, **Black/AA** and **Whites** do not meet the HP 2020 target (34.8) for **stroke mortality**; the overall rate increased over time
- MC and PGC do not meet the HP 2020 target (26.9%) for the **high blood pressure** prevalence
- In MC, **heart disease mortality** rate increased with age; **people 65+** have the highest **heart disease mortality** and **ER rate**
- In MC and PGC, **NH – Black/AA** have the highest **heart disease mortality** rate followed by **NH – White**, **Asian/PI**, **Hispanics**, and **males**
- In PGC, the **mortality rate** due to stroke is highest among **Black/AA** and **males**; in MC, it is highest among **females**, **65+**, and **Black/AA**

Trend Over Time

- Heart disease mortality rate had a decreasing trend in MC from 2014 – 2017
- In PGC, the mortality rate due to stroke increased
- In MC and PGC, high blood pressure increased
- In both counties, the ER rate due to high blood pressure increased significantly

Community Perception[1]

REHAB CBSA: "Has a doctor, nurse, or other health professional ever said you have, or are at risk for the following?"



[1] Adventist HealthCare (2019). Community Health Needs Assessment Primary Data Survey.

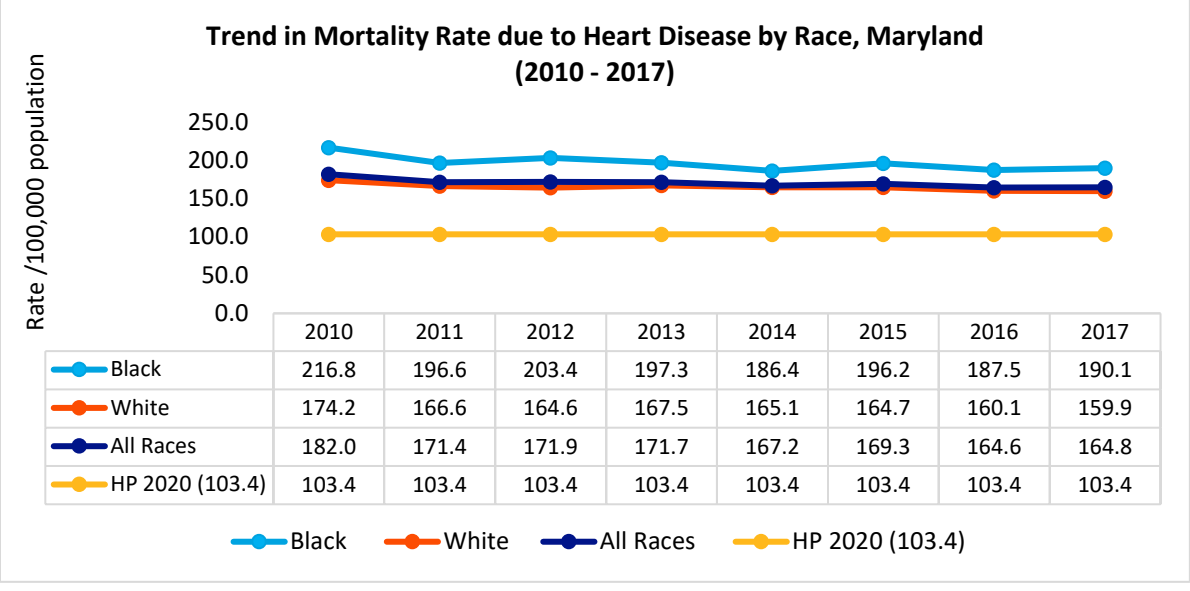
5.1 Heart Disease

Impact

While Maryland deaths due to heart disease have decreased by nearly 20 percent from a decade ago, heart disease is still the leading cause of death in the state.[2] Approximately 25 percent of all deaths in Maryland can be attributed to heart disease, which includes blood vessel diseases, heart rhythm problems, congenital heart defects, chest pains, heart muscle issues, heart valve problems, and stroke.[3] In both Montgomery and Prince George's County, heart disease mortality disproportionately affects non-Hispanic Black/African-Americans, Whites, individuals ages 65+, and males.

Mortality

- In Maryland, the overall death rate due to heart disease has decreased over time. However, over the past two years, the rates have increased for "all races" and Black individuals (Figure 1).
- Despite the constant decrease in mortality rates, Maryland has not met the Healthy People 2020 target of 103.4 (Figure 1).



	2010	2011	2012	2013	2014	2015	2016	2017
Black	216.8	196.6	203.4	197.3	186.4	196.2	187.5	190.1
White	174.2	166.6	164.6	167.5	165.1	164.7	160.1	159.9
All Races	182.0	171.4	171.9	171.7	167.2	169.3	164.6	164.8
HP 2020 (103.4)	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4

Figure 1. Trends in Mortality Rate due to Heart Disease, 2017
(Source: Annual Maryland Vital Statistics Report, 2017)

[2] Hogan, L., Mitchell, V., & Rutherford, B. (2014). Maryland Vital Statistics Annual Report, 2014. *Maryland Vital Statistics.* Retrieved from http://dhmh.maryland.gov/vsa/Documents/14annual_revised.pdf

[3] Mayo Clinic. (2014). Diseases and conditions: Heart disease. Retrieved from http://www.mayoclinic.org/diseases-conditions/heart-disease/basics/definition/con-20034056

- Similar to the state, Montgomery County has seen a decline in deaths due to heart disease over the past several years (Figure 2). However, the rate in Prince George's County increased (from 174 to 178 per 100,000) between 2014 to 2017 (Figure 3).
- Montgomery County has consistently had lower mortality rates due to heart disease in Maryland. However, in Prince George's County, the mortality rate is higher than that of Maryland (Figure 2 and 3).
- Montgomery and Prince George's Counties as well as Maryland have not met the HP 2020 target for mortality rate due to heart disease (Figure 2 and 3).

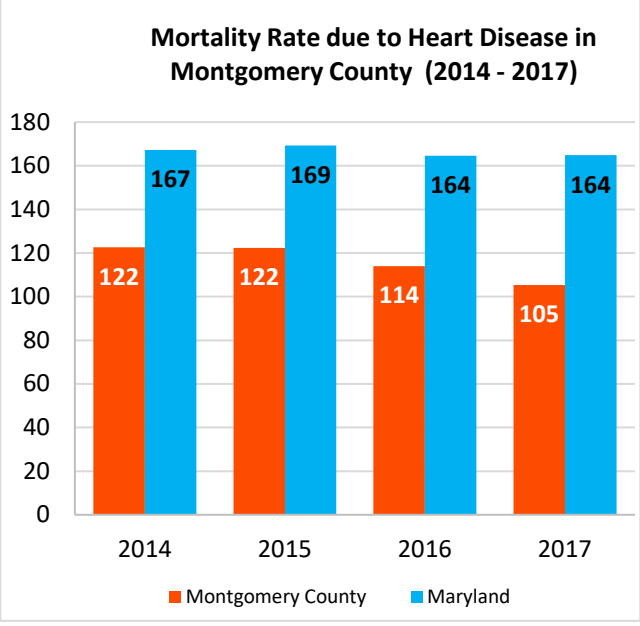


Figure 2. Age-Adjusted Mortality Rate due to Heart Disease per 100,000 population in Montgomery County and Maryland (2014 – 2017)
(Source: Healthy Montgomery, 2018)

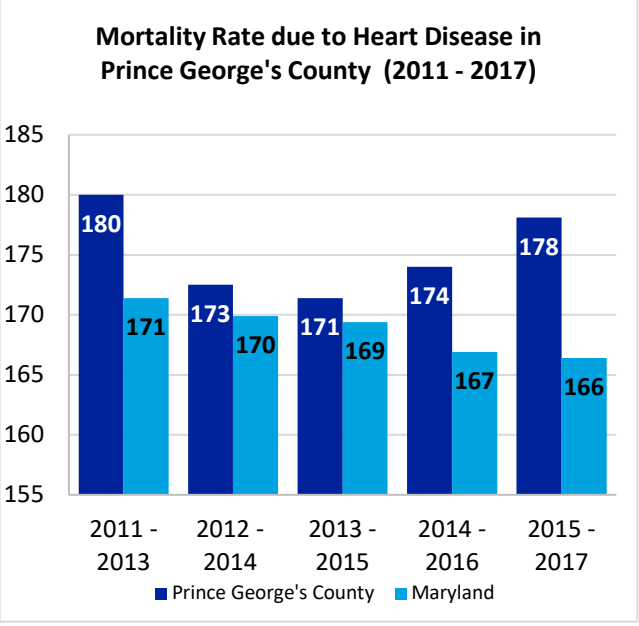


Figure 3. Age-Adjusted Mortality Rate due to Heart Disease per 100,000 population in Prince George's County and Maryland (2011 – 2017)
(Source: PGC Health Zone, 2018)

- When looking at mortality rates due to heart disease by age in Montgomery County, individuals aged 65+ have the highest rate with 726.1 per 100,000 population (Figure 4).

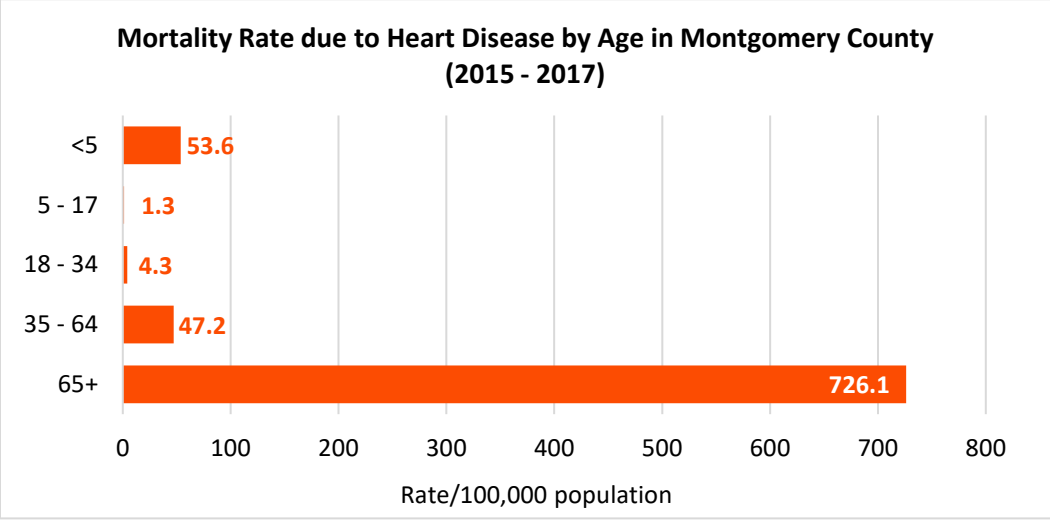


Figure 4. Mortality Rates due to Heart Disease by Age in Montgomery County, 2015 – 2017
(Source: Healthy Montgomery Core Measures Report, 2019)

- Stratifying the mortality rate data by race/ethnicity and sex in Montgomery and Prince George's County reveal that some groups are more affected by heart disease than others. Although, measurement periods for data shown below are different per county, Black followed by White individuals, still have the highest mortality rates in both counties (Figure 5).
- The mortality rate due to heart disease is 1.3X higher for males when compared to females in Montgomery County during 2015 to 2017 and 1.7X higher for males in Prince George's County in 2017 (Figure 5 and 6).

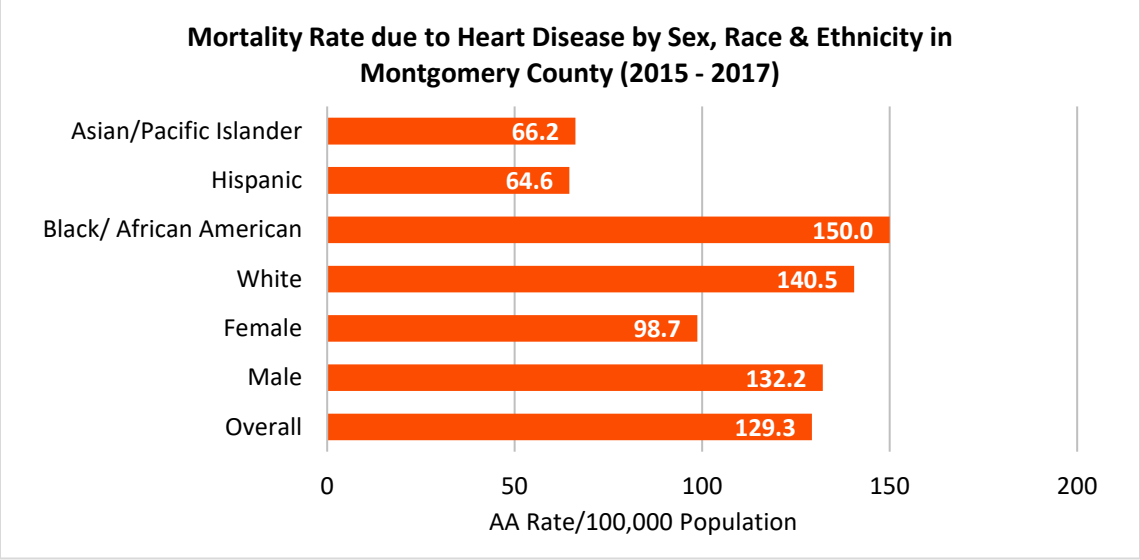


Figure 5. Mortality Rate due to Heart Disease by Sex and Race/Ethnicity in Montgomery County, 2015 – 2017
(Source: Healthy Montgomery Core Measures Report, 2019)

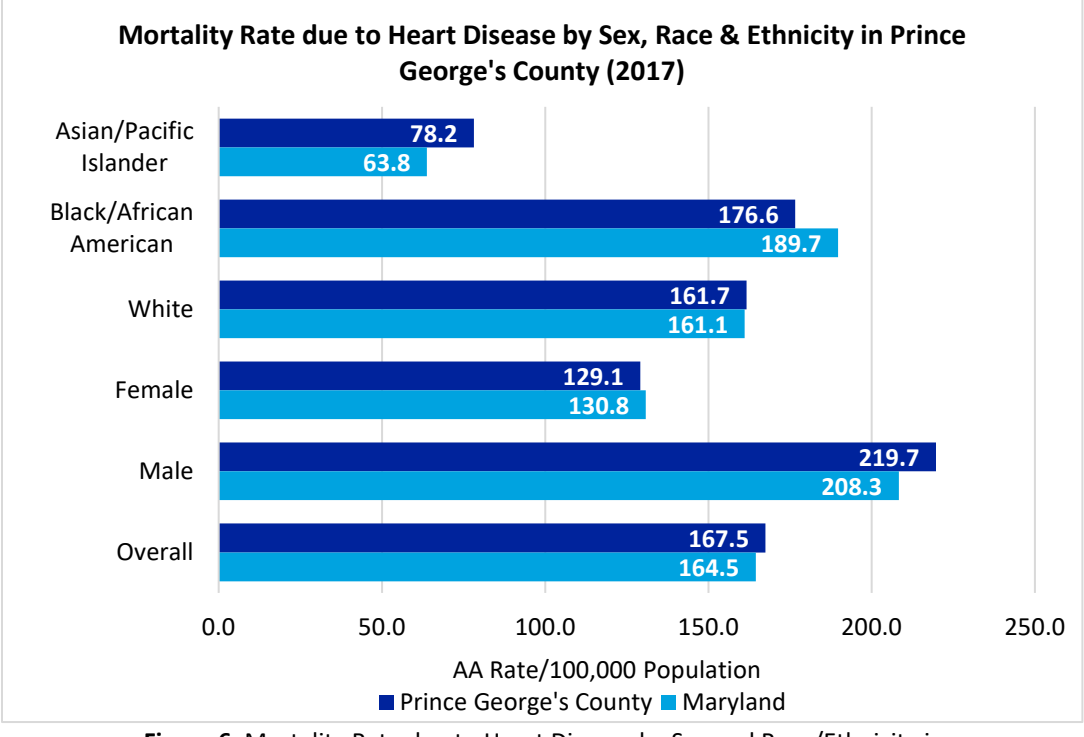


Figure 6. Mortality Rate due to Heart Disease by Sex and Race/Ethnicity in Prince George's County, 2017
(Source: LiveStories Statistics, 2019)

Hospitalization Rates

- Hospitalization rates due to heart failure for populations 18 and over shows that seniors over the age of 85 years are the most hospitalized population in both Montgomery and Prince George's County (Figures 7 and 8).
- Although the figures below show data from two different measurement periods, Prince George's County has an overall higher hospitalization rate due to heart failure than Montgomery County (Figure 7 and 8).

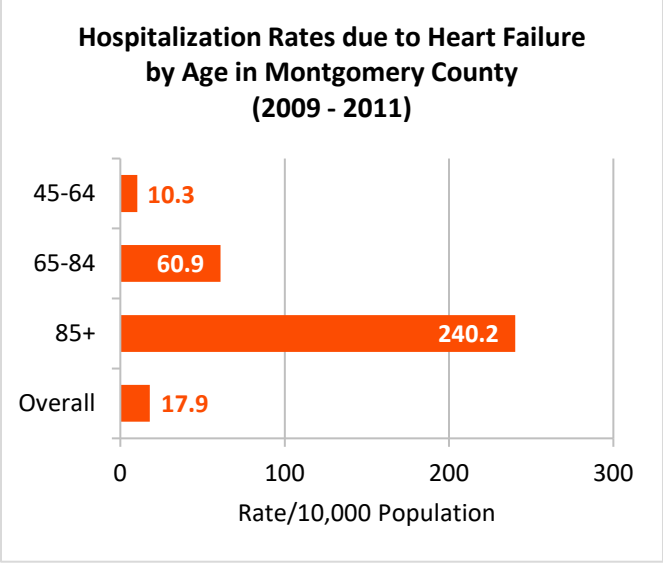


Figure 7. Hospitalization Rates due to Heart Failure by Age in Montgomery County
(Source: Healthy Montgomery, 2009 - 2011)

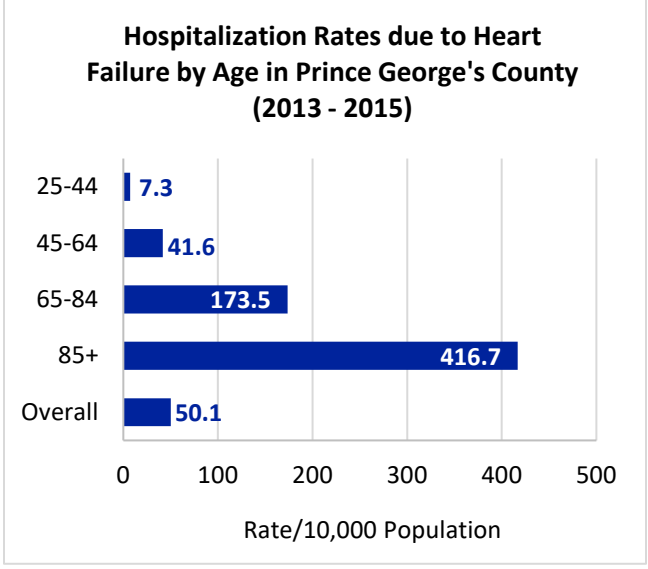


Figure 8. Hospitalization Rates due to Heart Failure by Age in Prince George's County
(Source: PGC Health Zone, 2013 - 2015)

- In Montgomery County, American Indian/Alaskan Natives are the most hospitalized population with a rate 3.4X higher than the overall rate (Figure 9). Black/African-American individuals are the second most hospitalized population in Montgomery County at 40.2 per 10,000 (Figure 9).
- In Prince George's County, Black/African-American residents followed by American Indian/Alaskan Natives have the highest hospitalization rate Figure 10).
- In both Montgomery and Prince George's Counties, Asian/Pacific Islanders have the lowest hospitalization rate due to heart failure (Figure 9 and 10).

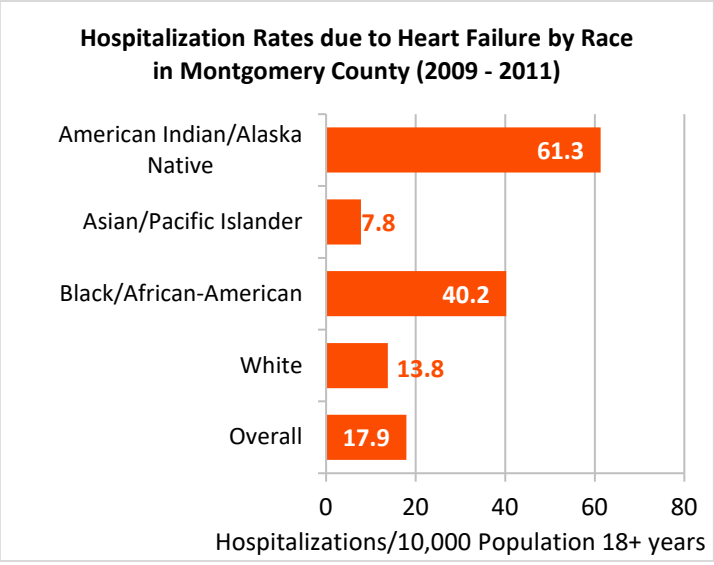


Figure 9. Hospitalization Rates due to Heart Failure by Race in Montgomery County
(Source: Healthy Montgomery, 2009 - 2011)

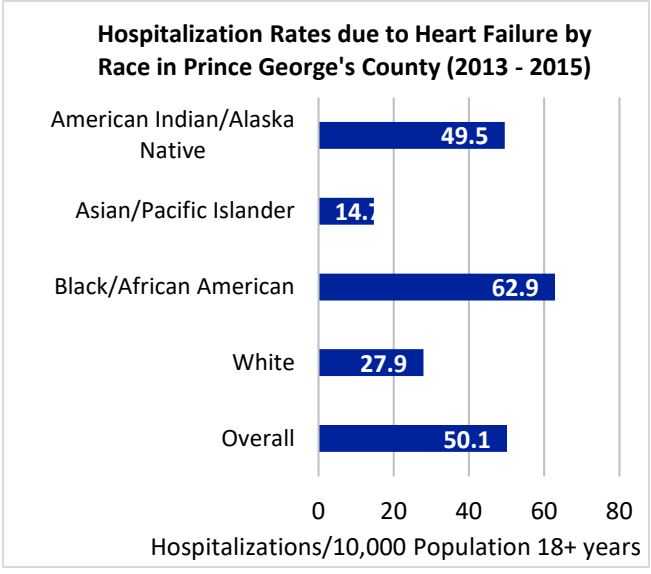


Figure 10. Hospitalization Rates due to Heart Failure by Race in Prince George's County
(Source: PGC Health Zone, 2013 - 2015)

5.2 Stroke

Impact

Stroke is the fifth leading cause of death in the United States of America and is the leading cause of disability.[4] In Maryland, stroke is the third leading cause of death.[5] Black/African-Americans die from stroke at a higher rate than White individuals and other races at both the national and state levels.[6] Stroke can be prevented by addressing risk factors such as high blood pressure and high cholesterol. In both Montgomery and Prince George's County, the mortality rate due to stroke is highest among males, Black/African-American followed by White individuals.

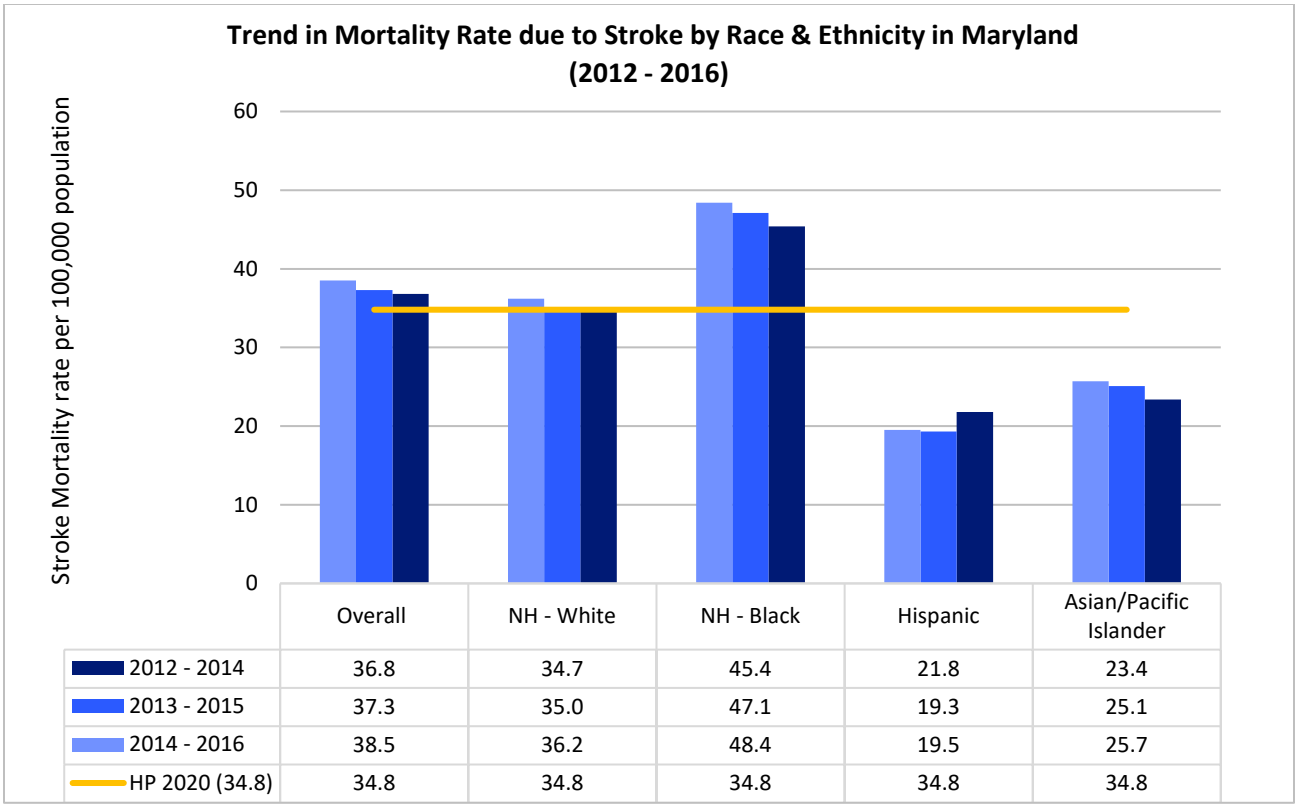
Mortality

- In Maryland, the overall deaths due to stroke increased over the last several years (Figure 11).
- The death rate due to stroke is significantly higher among Black/African-Americans followed by White individuals when compared to other racial and ethnic groups (Figure 11).

[4] American Stroke Association. (2016). *Heart Disease, Stroke and Research Statistics At-a-Glance, 2016.* Retrieved from http://www.heart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_480086.pdf

[5] Healthy Communities Institute. (2016). Leading causes of death, 2010-2012. *Healthy Montgomery*. Retrieved from https://data.montgomerycountymd.gov/en/Health-and-Human-Services/Leading-causes-of-death-Total-Population-2010-2012/43d7-et7a

[6] American Stroke Association. (2016). *Heart Disease, Stroke and Research Statistics At-a-Glance, 2016.* Retrieved from http://www.heart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_480086.pdf



	Overall	NH - White	NH - Black	Hispanic	Asian/Pacific Islander
2012 - 2014	36.8	34.7	45.4	21.8	23.4
2013 - 2015	37.3	35.0	47.1	19.3	25.1
2014 - 2016	38.5	36.2	48.4	19.5	25.7
HP 2020 (34.8)	34.8	34.8	34.8	34.8	34.8

Figure 11. Trends in Death Rate due to Stroke by Race and Ethnicity in Maryland, 2012 - 2016 (Source: Centers for Disease Control and Prevention, 2019)

- The stroke-related mortality rate in Montgomery County has been well below the Healthy People 2020 target of 34.8 deaths per 100,000 for several years in a row (Figure 12).
- Prince George's County does not meet the national target and has been on an increasing trend for the past several years (Figure 12).

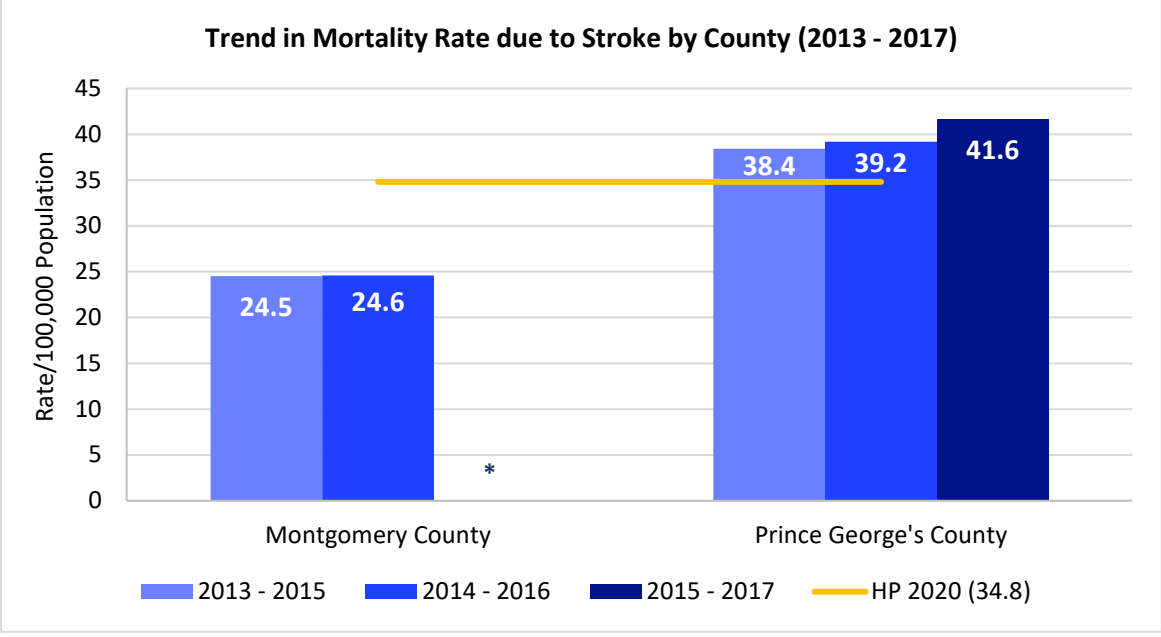


Figure 12. Trend in Mortality due to Stroke in Montgomery County and Prince George's County
*Data is not available/not applicable
(Source: Healthy Montgomery and PGC Health Zone, 2019)

- When looking at death rate due to stroke by gender, from 2013 to 2015 in Montgomery County, females had the highest rate when compared to males. However, in Prince George's County during measurement period 2015 to 2017, males had the highest rate compared to females and the overall rate (43.3 per 100,000) (Figure 13 and 14).

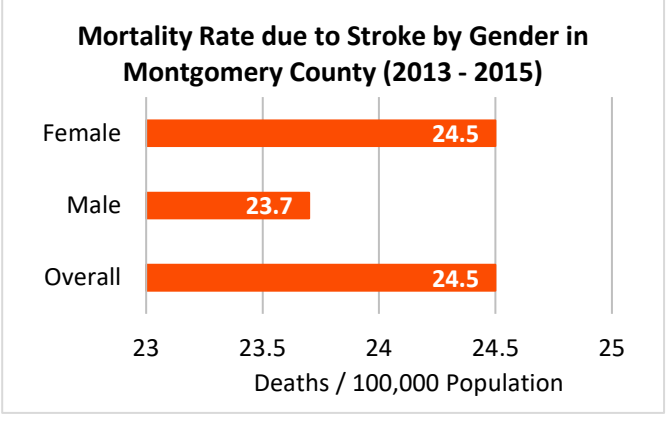


Figure 13. Mortality Rate due to Stroke by Gender in Montgomery County, 2013 – 2015
(Source: Healthy Montgomery, 2018)

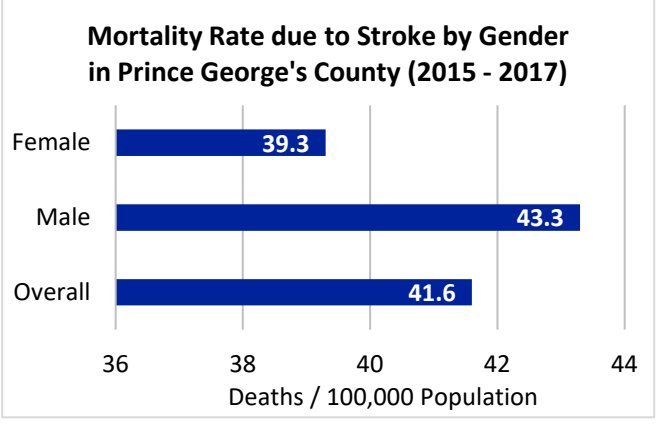


Figure 14. Mortality Rate due to Stroke by Gender in Prince George's County, 2015 – 2017
(Source: PGC Health Zone, 2018)

- In both Montgomery and Prince George's County, stratifying the data by race and ethnicity shows that Black/African-Americans have the highest death rate due to stroke than any other race/ethnicity and the overall rate for each of their respective counties despite the different measurement periods (Figure 15 and 16).

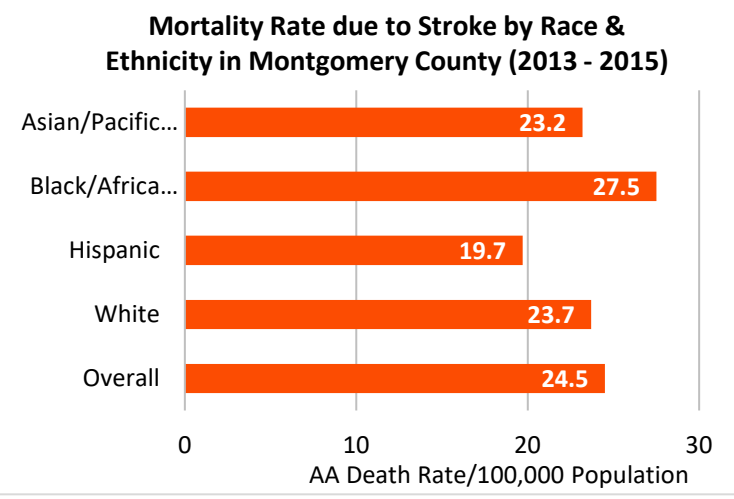


Figure 15. Mortality Rate due to Stroke by Race and Ethnicity in Montgomery County, 2013 – 2015
(Source: Healthy Montgomery, 2018)

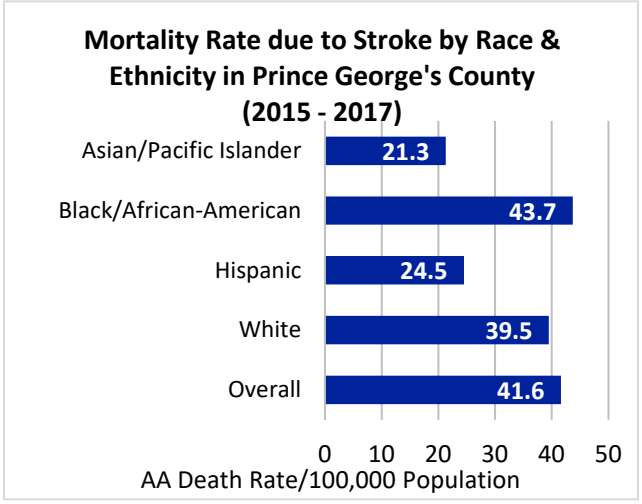


Figure 16. Mortality Rate due to Stroke by Race and Ethnicity in Prince George's County, 2015 – 2017
(Source: PGC Health Zone, 2018)

- When looking at the data stratified by age in Montgomery County, the mortality rate is highest for individuals ages 65+ (Figure 17).

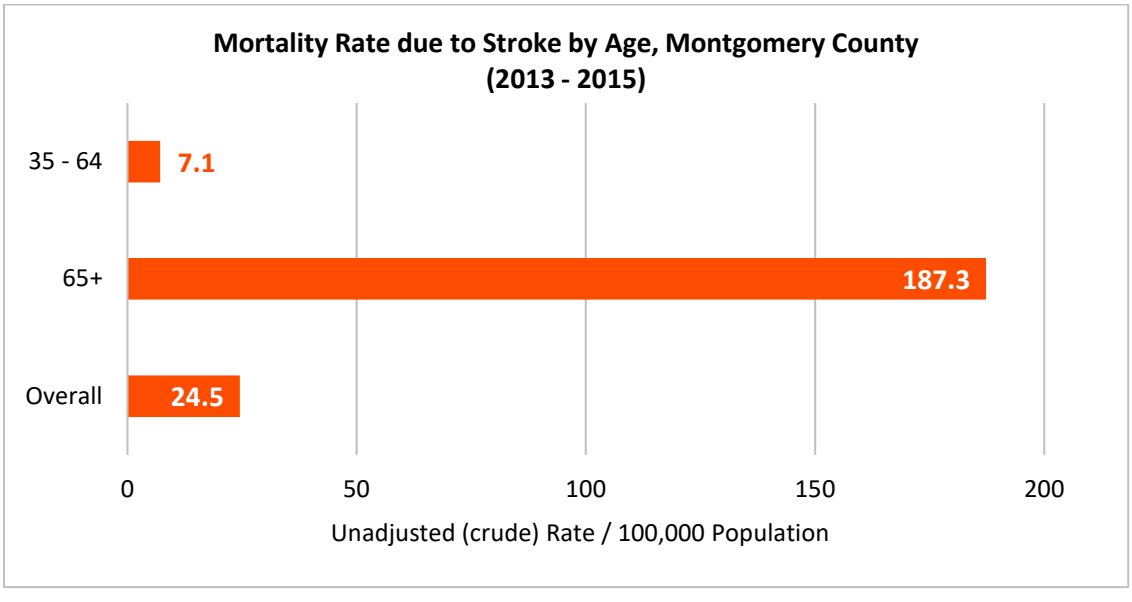


Figure 17. Mortality Rate due to Stroke by Age in Montgomery County, 2013 – 2015
(Source: Healthy Montgomery, 2019)

High Blood Pressure

- The percentage of high blood pressure prevalence has worsened over time for both Montgomery and Prince George's Counties (Figure 18).
- From 2015 to 2016, Montgomery County high blood pressure prevalence increased by 45.7 percent, in Prince George's County the prevalence increased by 36.8 percent (Figure 18).
- The HP 2020 target has not been met for either county (Figure 18).

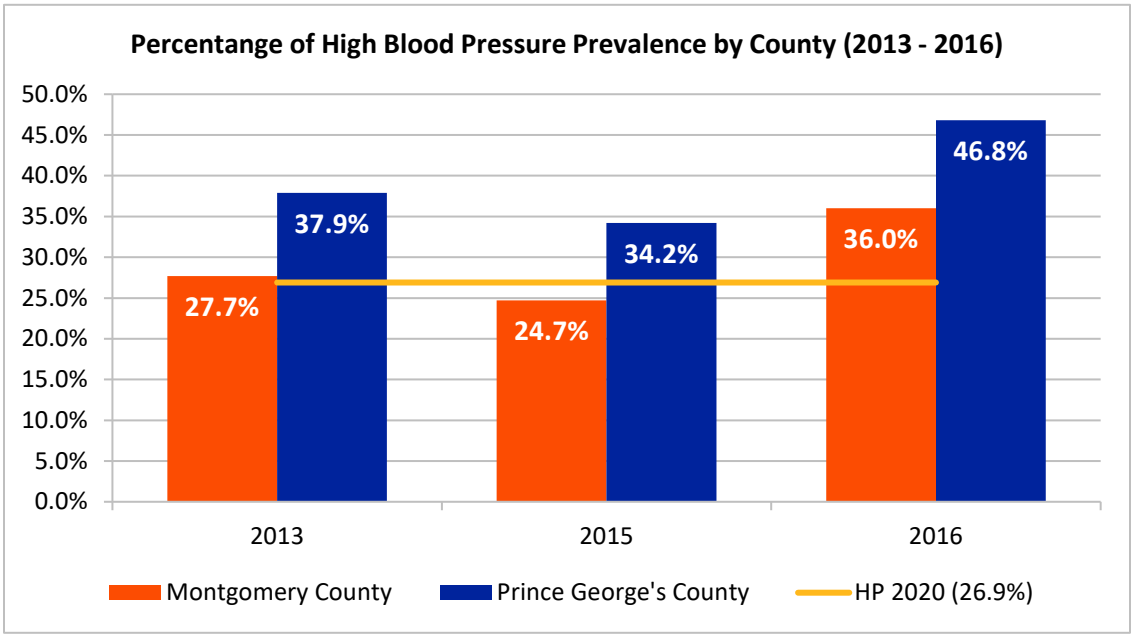


Figure 18. Percentage of High Blood Pressure Prevalence by County, 2013 – 2016
(Source: Healthy Montgomery & PGC Health Zone, 2019)

- When stratified by race and ethnicity, Black/African-American and White individuals are disproportionately burdened with high blood pressure in Montgomery County, whereas Black/African-American and those who identify as Other races are more burdened in Prince George's County (Figure 19).

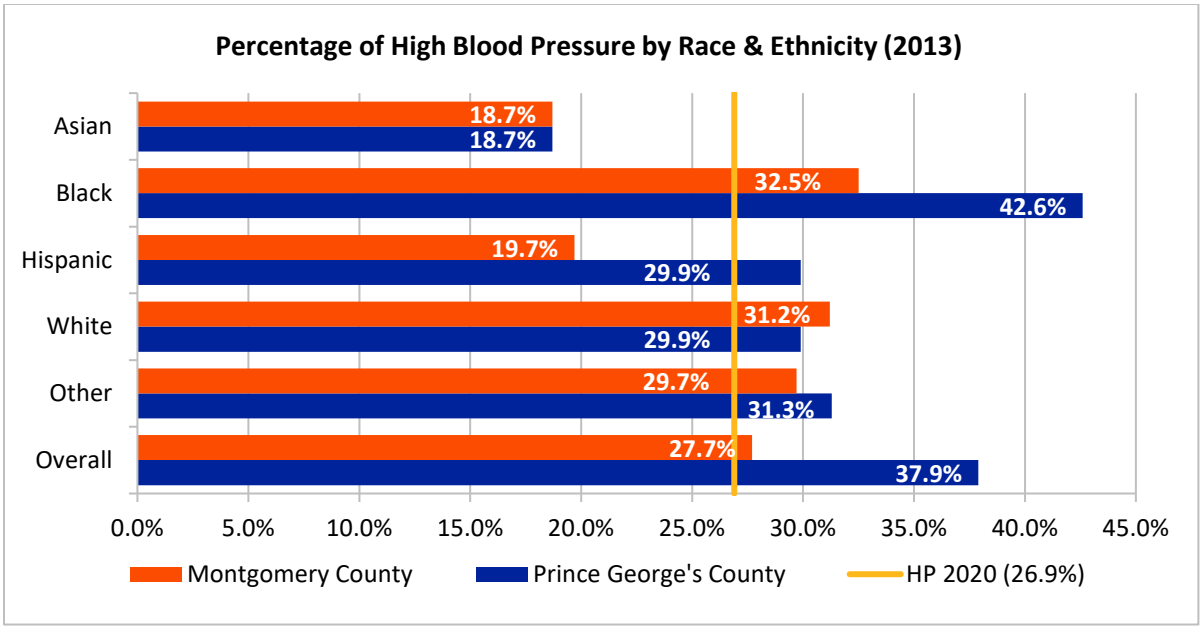


Figure 19. Prevalence of High Blood Pressure by Race and Ethnicity in Montgomery County and Prince George's County
(Source: Healthy Montgomery and PGC Health Zone, 2013)

- When looking at percentage of high blood pressure prevalence by gender, males are more disproportionately affected than females in Montgomery and Prince George's (Figure 20).
- When broken down into age groups, seniors 65 and over have the highest prevalence of hypertension in both counties, followed by the 45 to 64 age group (Figure 21).

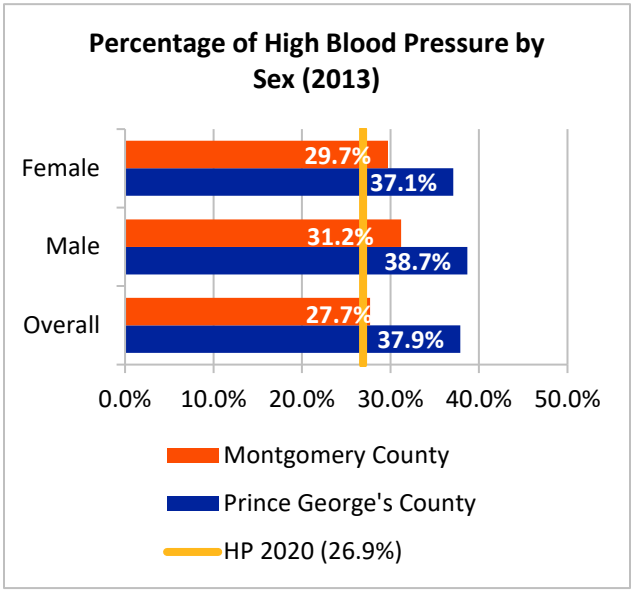


Figure 20. Prevalence of High Blood Pressure by Sex in Montgomery County and Prince George's County
(Source: Healthy Montgomery and PGC Health Zone, 2013)

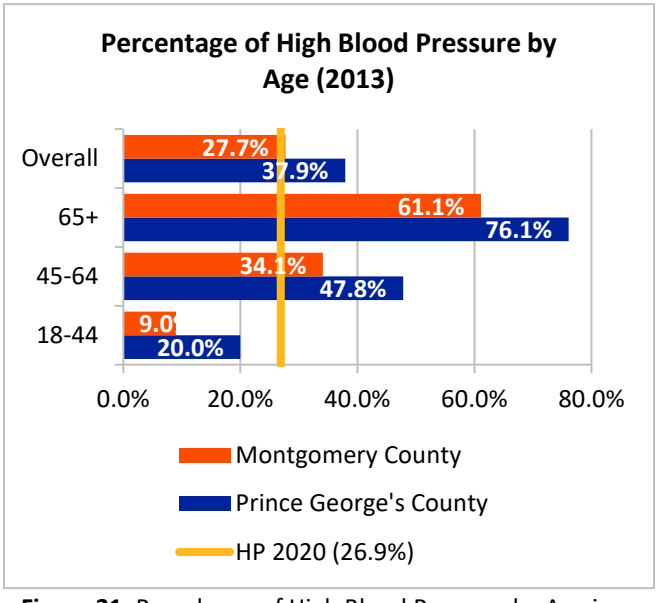


Figure 21. Prevalence of High Blood Pressure by Age in Montgomery County and Prince George's County.
(Source: Healthy Montgomery and PGC Health Zone, 2013)

- In terms of emergency room visit rates, both Montgomery and Prince George's County have an increasing trend in utilization over the past several years (Figure 22).
- When compared to one another, Prince George's County has a significantly higher utilization rate than Montgomery County with a difference of 95.7 (Figure 22).

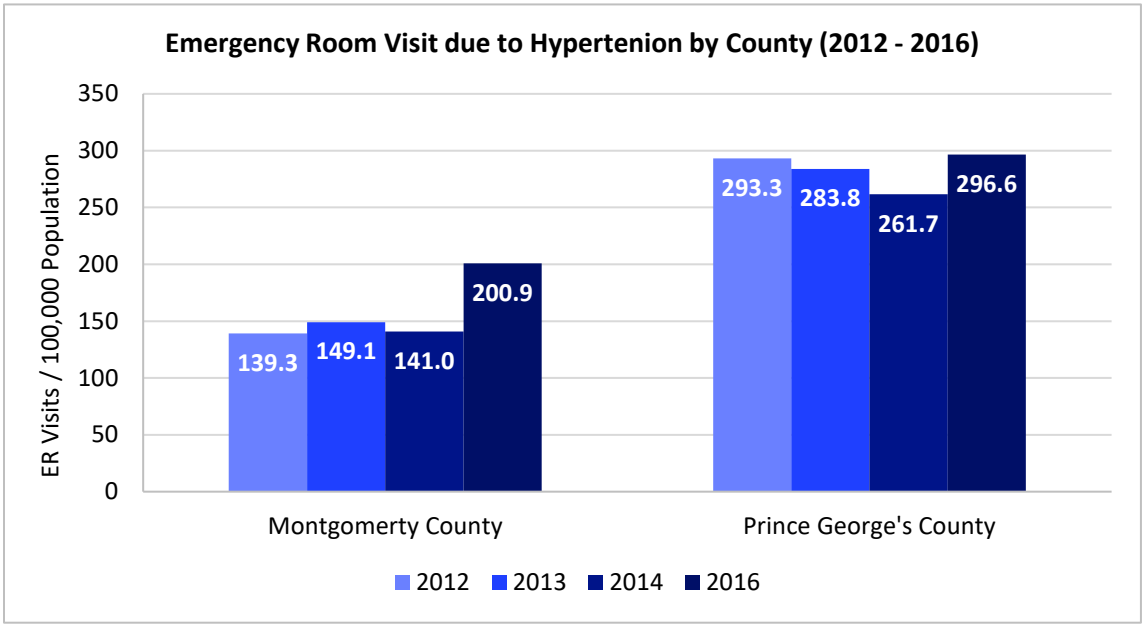


Figure 22. Trend in Emergency Room Visit Rate due to Hypertension in Montgomery County and Prince George's County
(Source: Healthy Montgomery and PGC Health Zone, 2014)

High Cholesterol

- High cholesterol prevalence in Prince George's County has decreased from 2013 to 2017 by nearly 10 percent. However, the county still does not meet the HP 2020 target of 13.5 percent (Figure 23).
- Similarly, Montgomery County has also seen a decrease in high cholesterol prevalence by 5.3 percent between 2013 to 2015, there is no data available through 2017. Despite the decrease, Montgomery County does not meet the HP 2020 target (Figure 23).

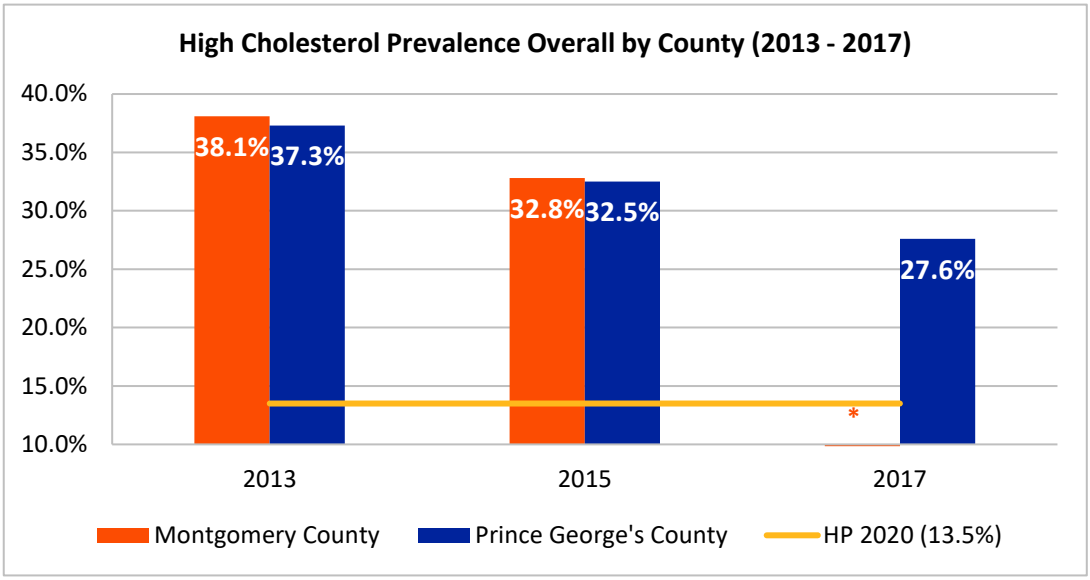


Figure 23. Prevalence of High Cholesterol in Montgomery and Prince George's Counties
*Data not available/not applicable
(Source: Healthy Montgomery and PGC Health Zone, 2018)

- Stratifying the data by race and ethnicity, shows that the prevalence of high cholesterol is highest among those who identify as Other and White in Montgomery County, whereas it is highest among White individuals followed by Others in Prince George's County (Figure 24 and 25).

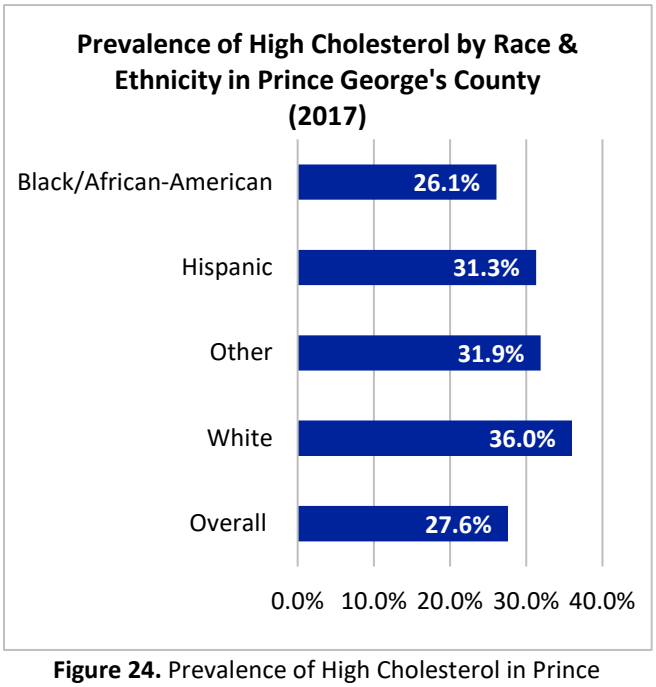


Figure 24. Prevalence of High Cholesterol in Prince George's County by Race and Ethnicity
(Source: PGC Health Zone, 2018)

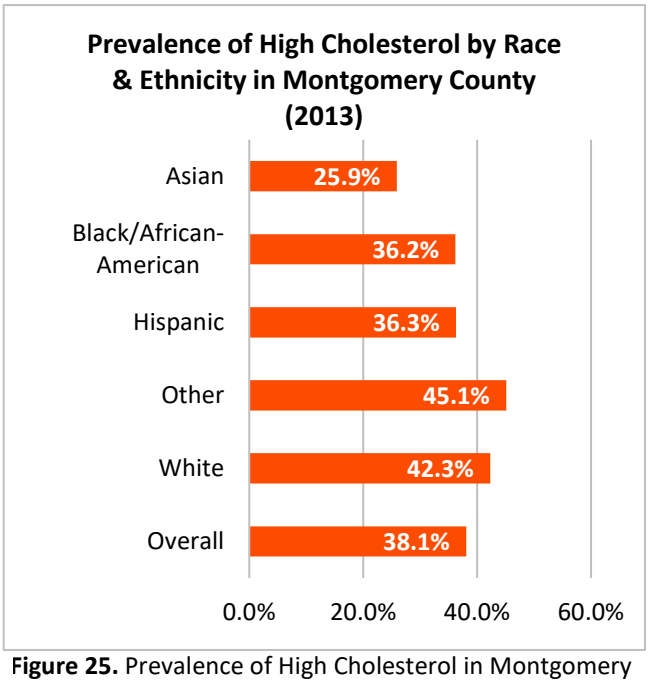


Figure 25. Prevalence of High Cholesterol in Montgomery County by Race and Ethnicity
(Source: Healthy Montgomery, 2016)

- In Prince George's County during the 2017 measurement period, females were more affected by high cholesterol than males. However, in Montgomery County during the most recent measurement period in 2013, males were more affected (Figure 26 and 27).

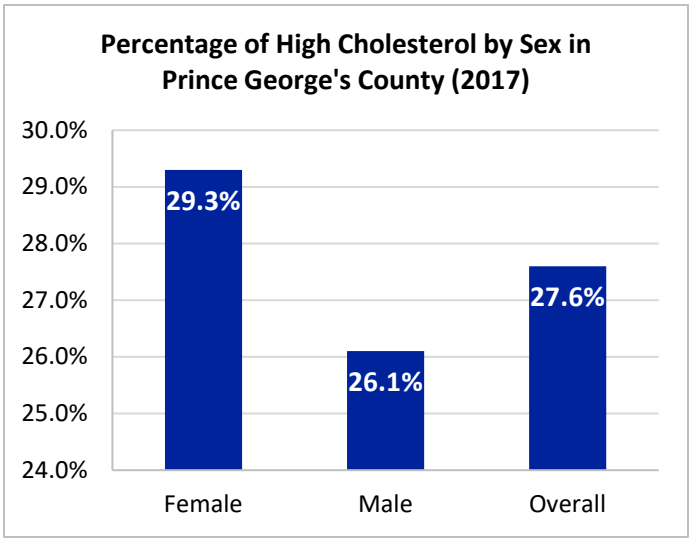


Figure 26. Prevalence of High Cholesterol by Gender in Prince George's County, 2017
(Source: PGC Health Zone, 2019)

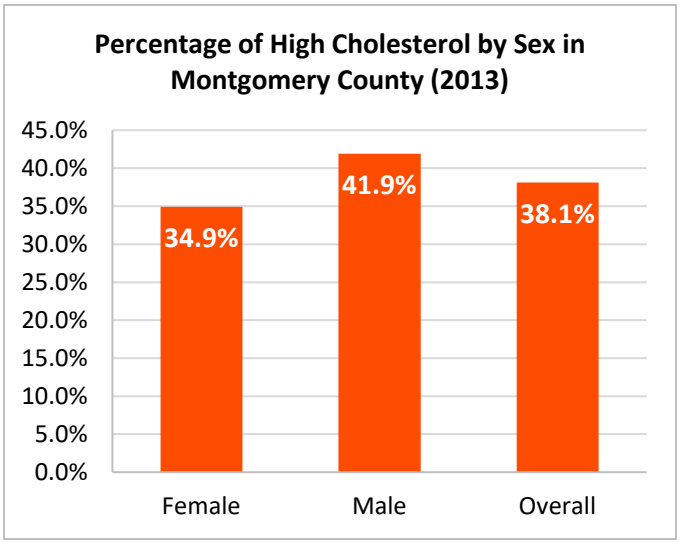


Figure 27. Prevalence of High Cholesterol by Gender in Montgomery County, 2013
(Source: Healthy Montgomery, 2016)

- In terms of age, seniors over the age of 65, followed by residents between the ages of 45 and 64, have the highest prevalence of high cholesterol in both counties despite the different measurement periods (Figure 28 and 29).

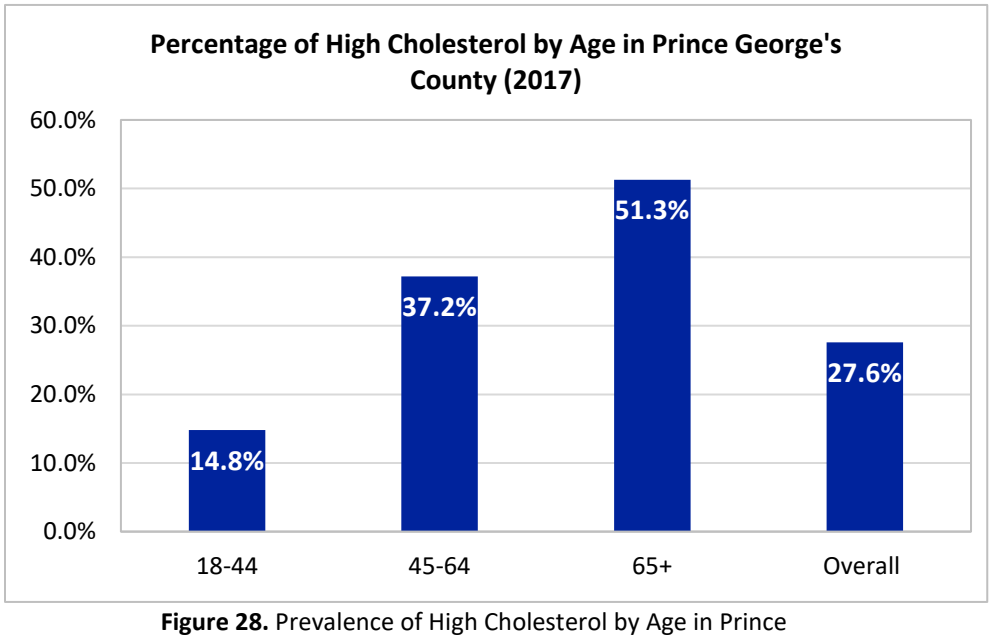


Figure 28. Prevalence of High Cholesterol by Age in Prince George's County, 2017
(Source: PGC Health Zone, 2019)

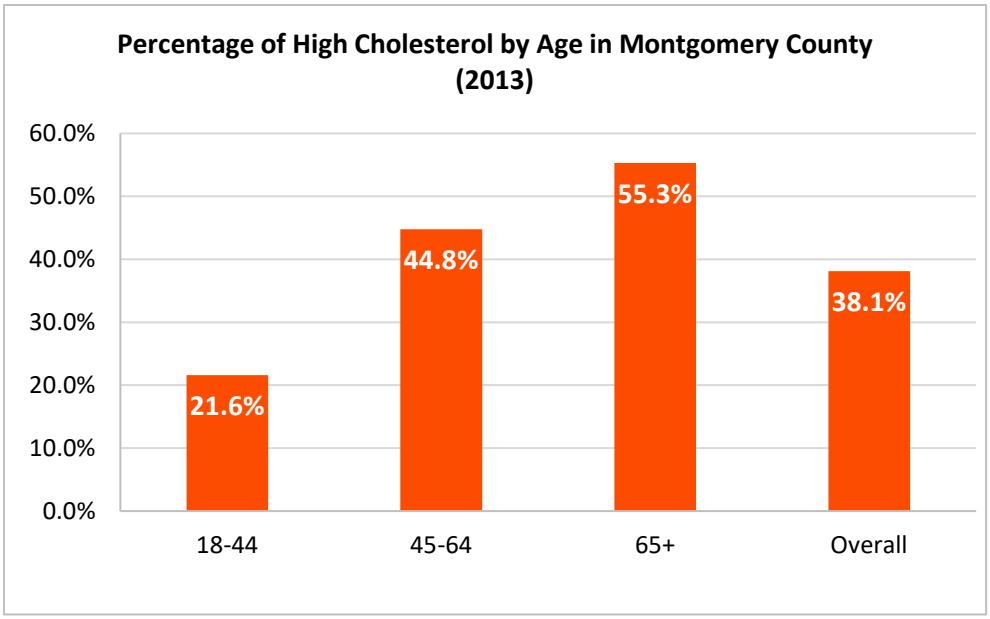


Figure 29. Prevalence of High Cholesterol by Age in Montgomery County, 2013
(Source: Healthy Montgomery, 2016)

Community Resources

Acute care cardiology services are provided by all hospital providers in Prince George's and Montgomery Counties. In addition, there are numerous physician providers as well as clinics that provide diagnosis and treatment for heart disease and stroke. The following are additional resources and services for heart disease and stroke in the community:

1. **ADVENTIST HEALTHCARE (AHC)**
   Heart & Vascular Care
   Phone: 301-569-6961
   Website:
   https://www.adventisthealthcare.com/services/heart-vascular/

   Free Monthly Blood Pressure Testing
   Phone: 1-800-542-5096
   Website:
   https://www.adventisthealthcare.com/calendar/details/dates/?topicId=68

   Stroke Rehabilitation
   Website:
   https://www.adventisthealthcare.com/services/rehabilitation/neurological/stroke/

   Free Stroke Support Group
   Phone: 301-569-6961
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=e426205c-efd9-de11-9638-005056947103

   Stroke Treatment
   Website:
   https://www.adventisthealthcare.com/services/brain-spine/stroke/

2. **PRINCE GEORGE'S COUNTY HEALTH & HUMAN SERVICES**
   Reduce Chronic Diseases by Reducing Obesity
   Phone: 301-883-7879
   Website:
   https://www.princegeorgescountymd.gov/2476/Reduce-Chronic-Diseases-by-Reducing-Obes

3. **MONTGOMERY COUNTY DEPARTMENT OF HEALTH AND HUMAN SERVICES**
   Senior Nutrition Program
   Address: 401 Hungerford Drive, Rockville, MD 20850
   Phone: 240-777-3000
   Website:
   https://www.montgomerycountymd.gov/hhs-program/program.aspx?id=ads/adsseniornutr-p190.html

4. **DOCTORS COMMUNITY HOSPITAL**
   Stroke Support Group
   Address: 9610 Good Luck Road, Lanham, MD 20706
   Phone: 301-552-8144
   Website:
   https://www.dchweb.org/wellness/support-groups/stroke-support-group

5. **WOMEN HEART**
   Phone: 202-728-7199
   Email: mail@womenheart.org
   Website: https://www.womenheart.org/

6. **MENDED HEARTS**
   Phone: 1-888-432-7899
   Resource Center: 229-518-2680
   Email: info@mendedhearts.org
   Website: https://mendedhearts.org/

7. **AMERICAN HEART ASSOCIATION**
   Bethesda Chapter
   Address: 8600 Old Georgetown Rd. Bethesda, MD 20814
   Phone: 301-530-3740
   Website: https://www.stroke.org/en/stroke-groups/montgomery-county-stroke-association--bethesda-chapter

   Silver Spring Chapter
   Address: 1000 Forest Glen Road, Silver Spring, MD 20901
   Phone: 301-622-2282
   Website: https://www.stroke.org/en/stroke-groups/montgomery-county-stroke-association-silver-spring-chapter

8. **MONTGOMERY COUNTY STROKE ASSOCIATION**
   Phone: 301-681-6272
   Email: info@mcstroke.org
   Website: https://www.mcstroke.org/

9. **AFRICAN AMERICAN HEALTH PROGRAM**
   Diabetes/Heart Health
   Address: 14015 New Hampshire Avenue, Silver Spring, MD 20904
   Phone: 240-777-1833
   Email: info@aahpmontgomerycounty.org
   Website: http://aahpmontgomerycounty.org/diabetes

Section IV: Findings

Part B:
Secondary Data

Chapter 6: Diabetes



Diabetes

KEY FINDINGS

Disparities & Indicators

- In MC and PGC, the overall age-adjusted **ER rates** for diabetes increased
- **NH-Black/AA** and **males** in MC and PGC have the highest **mortality and hospitalization** rates
- The **Medicare** population treated for diabetes increased for MC and PGC
- In MC, the diabetes **ER visit rates** increased with age; individuals **65+** have the highest rate with 1,099 per 100,000 population
- In PGC, **AI/AN** have the highest rate for **uncontrolled diabetes** compared to any other population subgroup

Trend Over Time

- MC and PGC age-adjusted death rate due to diabetes had a decreasing trend from 2012 - 2017

- MC and PGC age-adjusted ER rates due to diabetes had an increasing trend from 2012 - 2017
- % of Medicare population treated for diabetes had an increasing trend in MC and PGC from 2013 - 2017

Community Perception

REHAB CBSA: "Has a doctor, nurse or other health professional ever said you have or are at risk for the following (select all that apply)?"[1]

"Health education courses should be focused on how to manage chronic illnesses like **diabetes**."[2]

[1] Adventist HealthCare. (2019). Community Health Needs Assessment Primary Data Survey.
[2] Adventist HealthCare. (2019). Key Informant Interview Quote - Primary Data.

Diabetes

Impact

Diabetes Mellitus is a metabolic condition that affects how the body regulates glucose levels in the blood. In type 1 diabetes, the body does not produce enough insulin, which results in excess blood glucose accumulation in the blood. This excess glucose can lead to serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations[3]. This type of diabetes can develop at any age and there is no known way to prevent it. In adults, type 1 diabetes accounts for about 5 percent of all diagnosed cases of diabetes. Most diabetes cases in the U.S. are type 2 diabetes. Type 2 diabetes occurs when the body cannot produce insulin properly and can develop at any age. Unlike type 1 diabetes, type 2 diabetes can be prevented through healthy lifestyle choices, including proper diet and exercise. About 30 percent of people will develop this disease in their lifetime. Gestational diabetes is a specific type of diabetes that develops during pregnancy. Typically, this type of diabetes disappears after the birth of the baby, however, it predisposes the mother to an increased risk of developing type 2 diabetes later in life[4].

Diabetes can be a life-threatening disease that requires life-long management. It is the seventh leading cause of death in the U.S.[5]. More than thirty million people in the United States have diabetes, and 1 in 4 of them go undiagnosed; this puts them at a much higher risk for developing other health-related complications[6]. More than eighty-four million people have prediabetes, and ninety percent of them are unaware that they are at risk of developing diabetes. Diabetes is also a very costly disease; the total estimated cost of diagnosed diabetes in 2017 was $327 billion, including $237 billion in direct medical costs and $90 billion in reduced productivity[7].

Diabetes prevalence has also increased among children. While type 1 diabetes remains the primary type of diabetes in children, type 2 diabetes has become more common in children 10 years of age or

[3] Centers for Disease Control and Prevention (CDC). (2015). Basics about diabetes. Retrieved from http://www.cdc.gov/diabetes/basics/diabetes.html

[4] CDC. (2015). 2014 National diabetes statistics report. Retrieved from http://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html

[5] CDC. (2015). Basics about diabetes. Retrieved from http://www.cdc.gov/diabetes/basics/diabetes.html

[6] CDC. (2019). Diabetes Quick Facts. Retrieved from https://www.cdc.gov/diabetes/basics/quick-facts.html

[7] American Diabetes Association (2018). Economic Costs of Diabetes in the U.S. in 2017. Retrieved from https://care.diabetesjournals.org/content/41/5/917.full

older[8]. This can be attributed to the increasing prevalence of obesity and being overweight in young populations[9].

In Maryland the overall prevalence of diabetes is 11 percent[10] and remains the sixth leading cause of death for the state[11]. In Montgomery and Prince George's Counties, the percentage of individuals living with diabetes varies based on sociodemographic factors. In both counties, individuals living with diabetes was highest among males, individuals 65+, Asians (Montgomery County) and Hispanics (Prince George's County). However, hospitalization and mortality rates due to diabetes is highest among Black/African-American individuals for both Montgomery and Prince George's County. Although diabetes mellitus is a serious and costly chronic disease, early detection, improved delivery of care, and better self-management are important strategies that can help prevent the burden of diabetes[12].

Prevalence

- The overall prevalence of diabetes in Montgomery County has been stable at 7 percent since 2014 (Figure 1).
- In Prince George's County, the percent of adults with diabetes has slightly fluctuated over the past five years. In 2017, the percentage increased by 1.3 percent (Figure 1).

[8] Centers for Disease Control and Prevention: National diabetes statistics report: estimates of diabetes and its burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services; 2014. Retrieved from https://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf

[9] Fagot-Campagna A, Pettitt DJ, Engelgau MM, et al. Type 2 diabetes among North American children and adolescents: an epidemiologic review and a public health perspective. The Journal of pediatrics. May 2000;136(5):664-672.

[10] County Health Rankings (2019). Maryland Diabetes Prevalence. Retrieved from https://www.countyhealthrankings.org/app/maryland/2019/measure/outcomes/60/data

[11] CDC. (2019). Stats of the State of Maryland. Retrieved from https://www.cdc.gov/nchs/pressroom/states/maryland/maryland.htm

[12] Healthy in Montgomery County 2008 – 2016. A surveillance report on population health. Retrieved from https://www.montgomerycountymd.gov/healthymontgomery/Resources/Files/HM-Resources/Publications/PopHealthReportFINAL.pdf

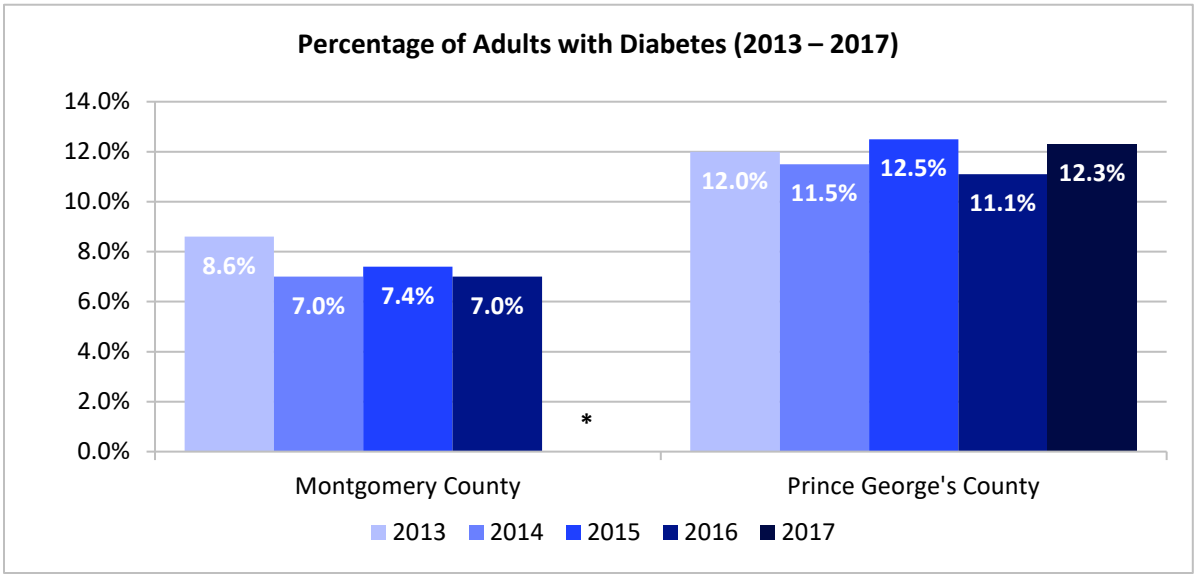


Figure 1. Percentage of Adults with Diabetes, 2013 – 2017.
*Data unavailable/not applicable
Note: Excludes diabetes cases during pregnancy.
Crude rates not comparable across county populations
(Source: Healthy Montgomery & PGC Health Zone, 2019)

- In 2014, in Montgomery County, Asian individuals experienced the highest prevalence of diabetes at 9.3 percent compared to Black/African-Americans at 7.6 percent and White individuals at 7.2 percent (Figure 2).
- In 2017, in Prince George's County, the greatest disparity was between Hispanics (16.7 percent) and White individuals (10.5 percent) (Figure 3).

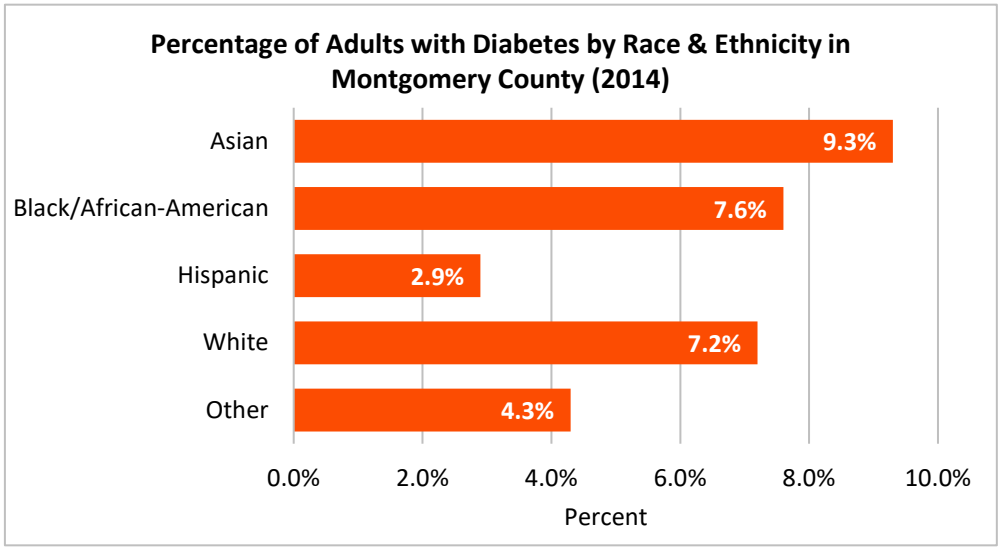


Figure 2. Percentage of Adults with Diabetes by Race/Ethnicity in Montgomery County, 2014
Note: Excludes diabetes cases during pregnancy.
Crude rates not comparable across county populations
(Source: Maryland BRFSS Data, 2014)

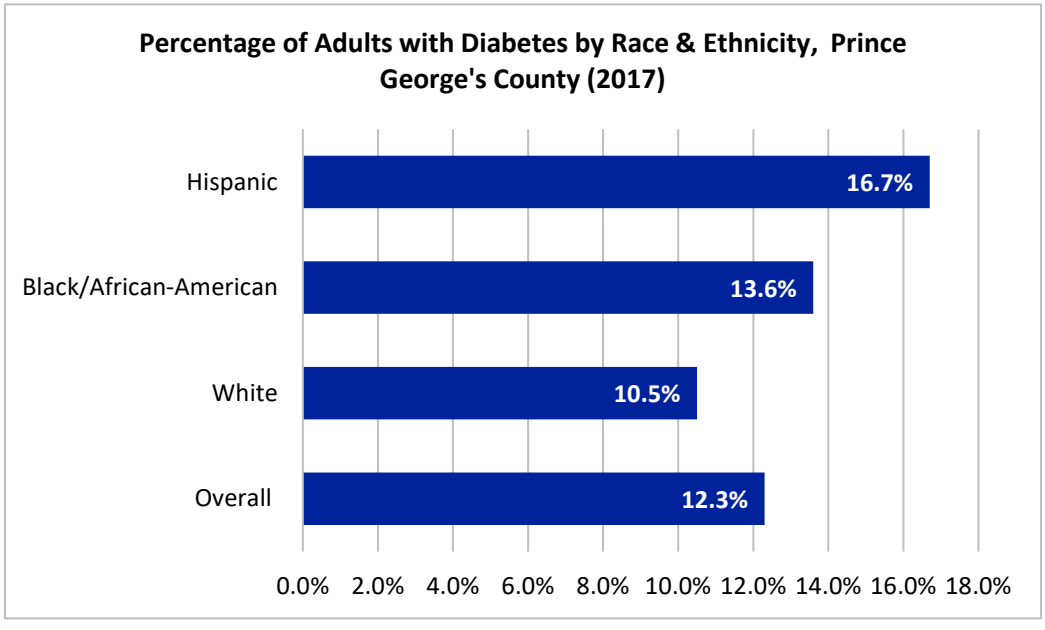


Figure 3. Percentage of Adults with Diabetes by Race/Ethnicity in Prince George's County, 2017
(Source: PGC Health Zone, 2019)

- In both Montgomery and Prince George's County, males were more likely to be diagnosed with diabetes when compared to females during the year 2015 in Montgomery County and 2017 in Prince George's County (Figure 4 and 5).

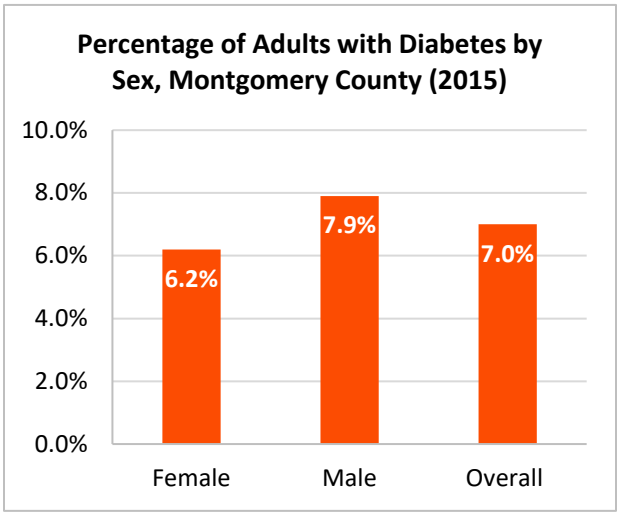


Figure 4. Percentage of Adults with Diabetes by Sex in Montgomery County, 2015
(Source: CARES Engagement Network, 2019)

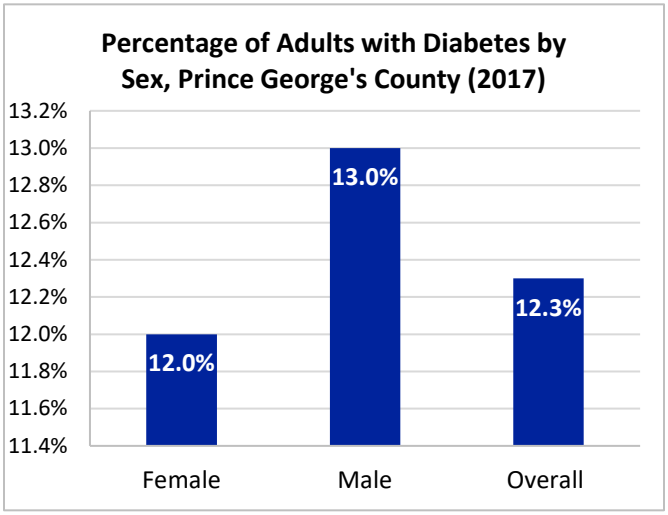


Figure 5. Percentage of Adults with Diabetes by Sex in Prince George's County, 2017
(Source: PGC Health Zone, 2019)

- In terms of age, individuals age 65+ were the most likely to have diabetes in both Montgomery County (for year 2014) and Prince George's County (for year 2017) (Figure 6 and 7).

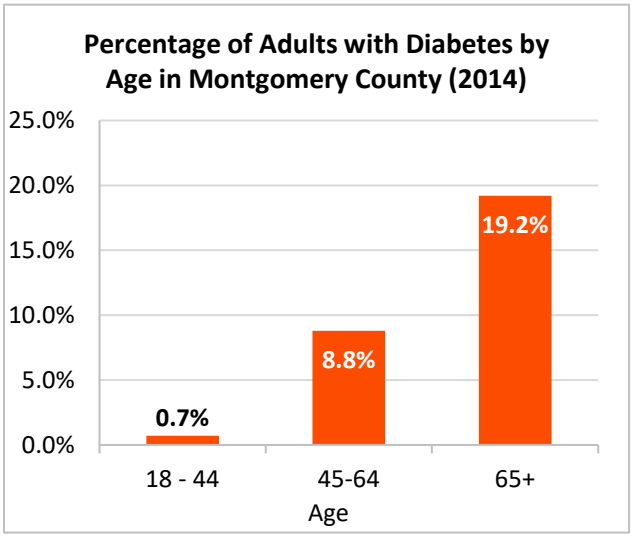


Figure 6. Percentage of Adults with Diabetes by Age in Montgomery County, 2014
Note: Excludes diabetes cases during pregnancy.
Crude rates not comparable across county populations
(Source: Maryland BRFSS Data, 2014)

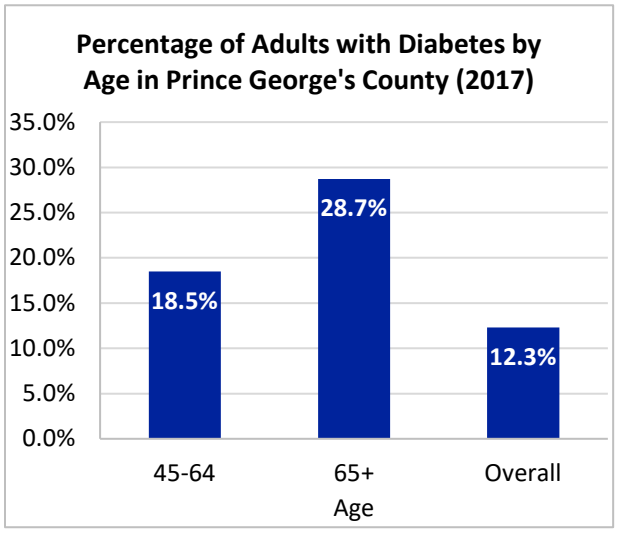


Figure 7. Percentage of Adults with Diabetes by Age in Prince George's County, 2017
Note: Excludes diabetes cases during pregnancy.
(Source: PGC Health Zone, 2019)

- The percentage of the Medicare population having received treatment for diabetes also illustrates the burden of disease on this potentially financially-strained group; especially in Prince George's County where the percentage is much higher when compared to Montgomery County and Maryland (Figure 8).
- There has been a slight gradual increase in the proportion of the Medicare population being treated for diabetes from 2014 to 2017 for both Montgomery and Prince George's Counties (Figure 8).

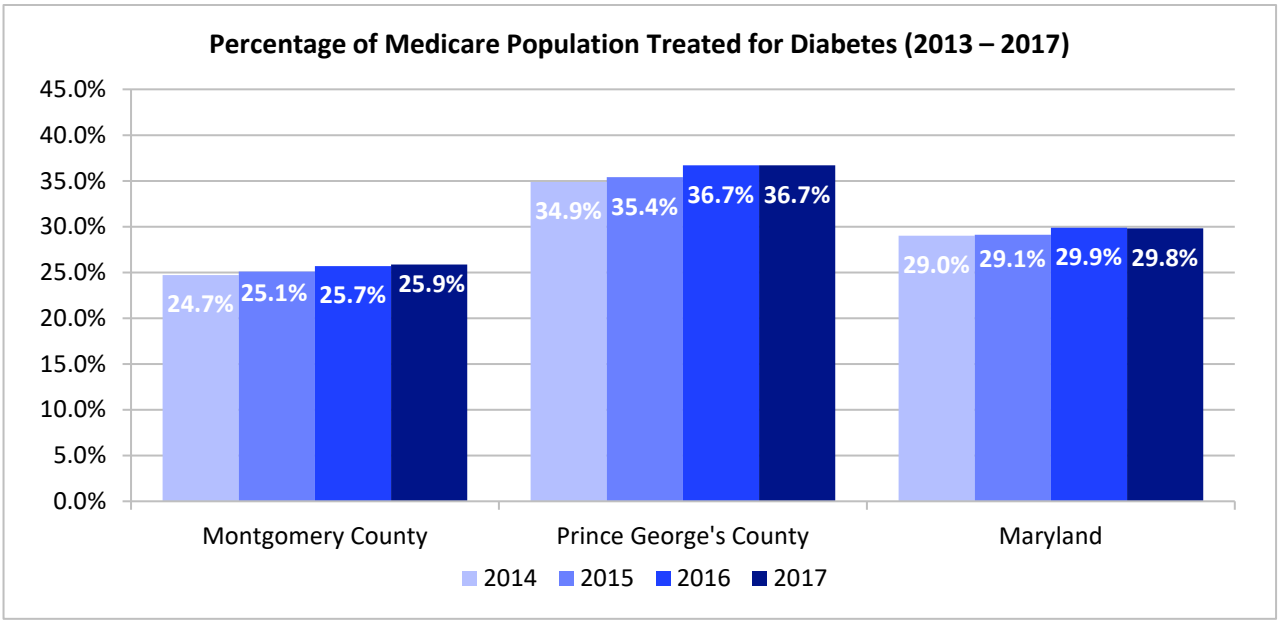


Figure 8. Percentage of Medicare Population Treated for Diabetes, 2013 – 2017
(Source: Centers for Medicare and Medicaid Services, 2019)

Emergency Room Rates

- Over time, when looking at the age-adjusted ER rates due to diabetes by county, Prince George's County continues to have the highest rate when compared to Montgomery County (Figure 9).
- In 2017, Maryland had the highest age-adjusted death rate due to diabetes with 243.7 per 100,000 population which is nearly 2X higher than that of Montgomery County for the same year (Figure 9).

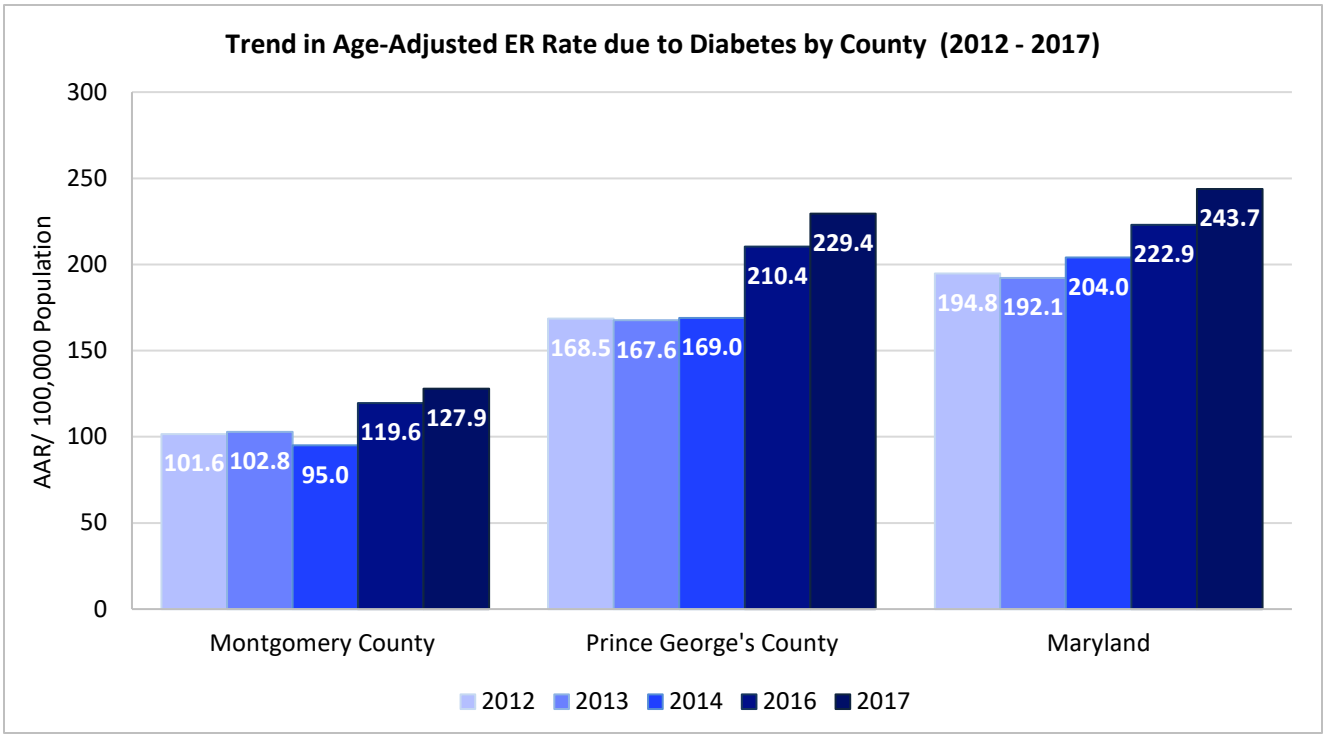


Figure 9. Trend in Age-Adjusted ER Rates due to Diabetes in Montgomery County, Prince George's County, and Maryland, 2012 – 2017
(Source: Maryland SHIP, 2019)

- When looking at diabetes ER visits stratified by race and ethnicity in Montgomery County, Black/African-American individuals have a rate that is 6X greater and Hispanics have a rate 4X greater than Asians (Figure 10).
- In terms of ER visits by sex, both females and males have relatively similar rates with females being just 2.2 higher than males (Figure 10).

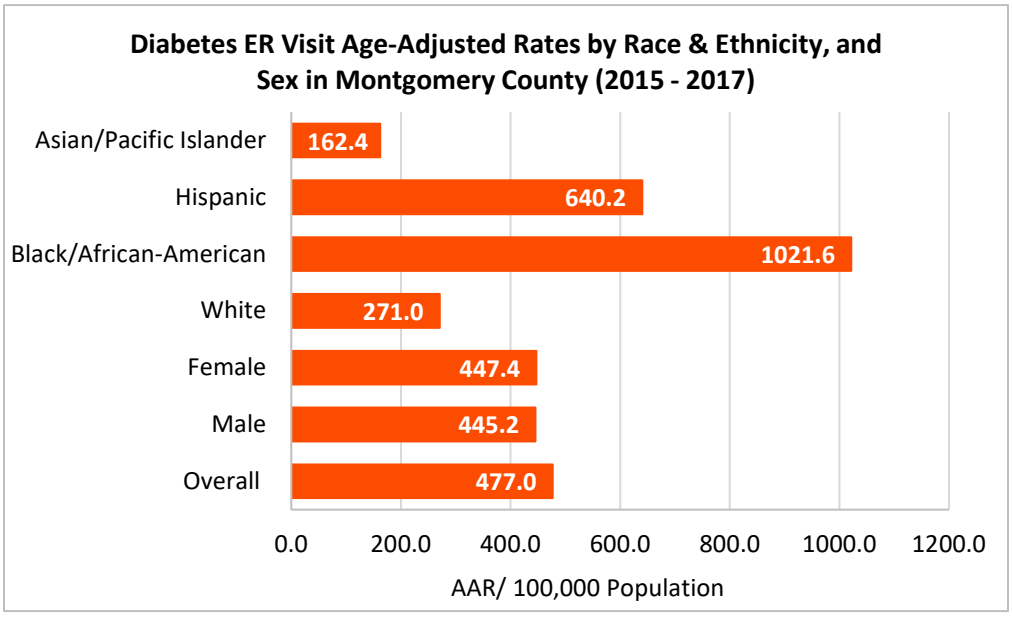


Figure 10. Diabetes ER Visit Age-Adjusted Rates by Race & Ethnicity and Sex in Montgomery County, 2015 – 2017
(Source: Healthy Montgomery Core Measures Report, 2019)

- Diabetes ER visit rates increased with age in Montgomery County (Figure 11).
- Individuals 65 and older have a rate 4.8X higher than persons aged 18 to 34, and 1.7X greater than persons 35 to 64 (Figure 11).

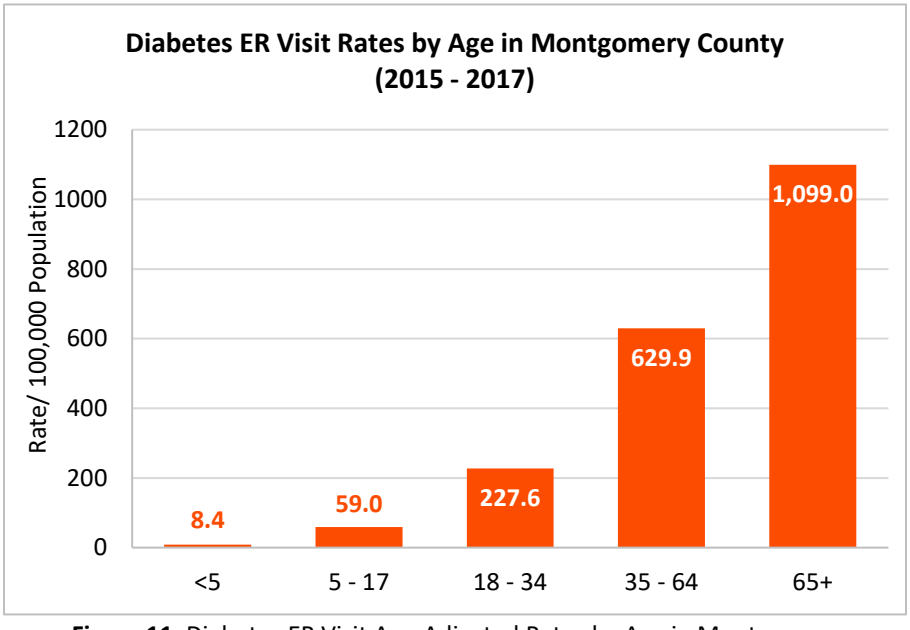


Figure 11. Diabetes ER Visit Age-Adjusted Rates by Age in Montgomery County, 2015 – 2017
(Source: Healthy Montgomery Core Measures Report, 2019)

Hospitalization Rates

- From 2015 to 2017, in Montgomery County, the age-adjusted hospitalization rates for diabetes overall is highest among individuals who are 65+, males, Black/African-American, and Hispanic individuals (Table 1).
- In Montgomery County the Individuals who are most affected by hospitalization rates due to diabetes based on level of complication varies by age, sex, and race/ethnicity (Table 1):
    - People 18 to 34 years old, Black/African-American, and Hispanic have the highest hospitalization rate for *short term complication* due to diabetes
    - Individuals who are 35 to 64 years old, male, Black/African-American, and Hispanic have the highest *long- term complications* due to diabetes
    - Seniors who are 65+, Black/African-American, and Hispanic individuals have the highest rate for *uncontrolled diabetes*

Montgomery County Age-Adjusted Hospitalization Rates per 100,000 Population (2015 - 2017)				
Characteristic	**Diabetes**	**Short-term Complications of Diabetes**	**Long-Term Complications of Diabetes**	**Uncontrolled Diabetes**
Age				
5 - 17	2.4	0.9	0.2	0.6
18 - 34	104.5	**50.6**	20.6	21
35 - 64	253.5	43.6	**103.3**	65.2
65+	**873.3**	43.9	**367.6**	**205.9**
Sex				
Male	**258.2**	35.0	**111.2**	58.3
Female	210.6	33.6	73.6	53.9
Race				
Asian/ Pacific Islander	124.7	7.8	42.9	30.3
Hispanic	**279.1**	**37.9**	**99.4**	**76.7**
Black/African-American	**465.2**	**73.1**	**185.2**	**119.8**
White	181.4	27.3	76.0	37.6

Table 1. Age-Adjusted Hospitalization Rates per 100,000 population in Montgomery County, 2015 – 2017
(Source: Healthy Montgomery, 2019)

- From 2013 to 2015, in Prince George's County, the age-adjusted hospitalization rates for diabetes overall is highest among individuals who are 65 to 84 and 85+, males, and Black/African-American (Table 2).

- In Prince George's County, the Individuals who are most affected by hospitalization rates due to diabetes based on level of complication varies by age, sex, and race (Table 2):
    - People 65 to 84 years old and Black/African-American have the highest hospitalization rate for *short term complication* due to diabetes
    - Individuals who are 65 to 84, 85+, male, and Black/African-American, have the highest *long- term complications* due to diabetes
    - Seniors who are 65 to 84 and American Indian/Alaskan Native have the highest rate for *uncontrolled diabetes*

Prince George's County Age-Adjusted Hospitalization Rates per 10,000 Population 18+ Years of Age (2013 - 2015)				
Characteristic	**Diabetes**	**Short-term Complications due to Diabetes**	**Long-Term Complications due to Diabetes**	**Uncontrolled Diabetes**
Age				
18 - 19	6.2	5.9	*	*
20 - 24	12.1	9.7	1.9	*
25 - 44	16.2	8.8	6.4	0.8
45 - 64	29.4	9.7	17.1	2.1
65 - 84	**53.7**	**10.4**	**38.5**	**4.1**
85+	**49.5**	6.8	**39.4**	*
Overall	25.7	9.3	14.4	1.6
Sex				
Male	**29.5**	9.9	**17.3**	1.8
Female	22.9	8.8	12.3	1.5
Overall	25.7	9.3	14.4	1.6
Race				
American Indian/Alaskan Native	41.3	15.0	25.4	**35.0**
Asian/Pacific Islander	5.4	**	4.2	**
Black/African-American	**31.9**	**11.4**	**17.8**	2.1
White	14.9	6.0	8.2	0.6
Overall	25.7	9.3	14.4	1.6

Table 2. Age-Adjusted Hospitalization Rates per 10,000 population in Prince George's County, 2013 – 2015
*Data unavailable/not applicable
(Source: PGC Health Zone, 2019)
***NOTE*: AI/AN had no significant difference with the overall value for diabetes and short-term complications due to diabetes according to PGC Health Zone.

Mortality

- Diabetes mortality has an overall decreasing trend which is like that of Maryland (Figure 12).
- The mortality rate in Montgomery County has consistently been lower than that of Maryland and Prince George's County (Figure 12).
- The Prince George's county mortality rate has remained nearly constant over the last three years. When compared to Montgomery County and Maryland, the rates are significantly higher (Figure 12).

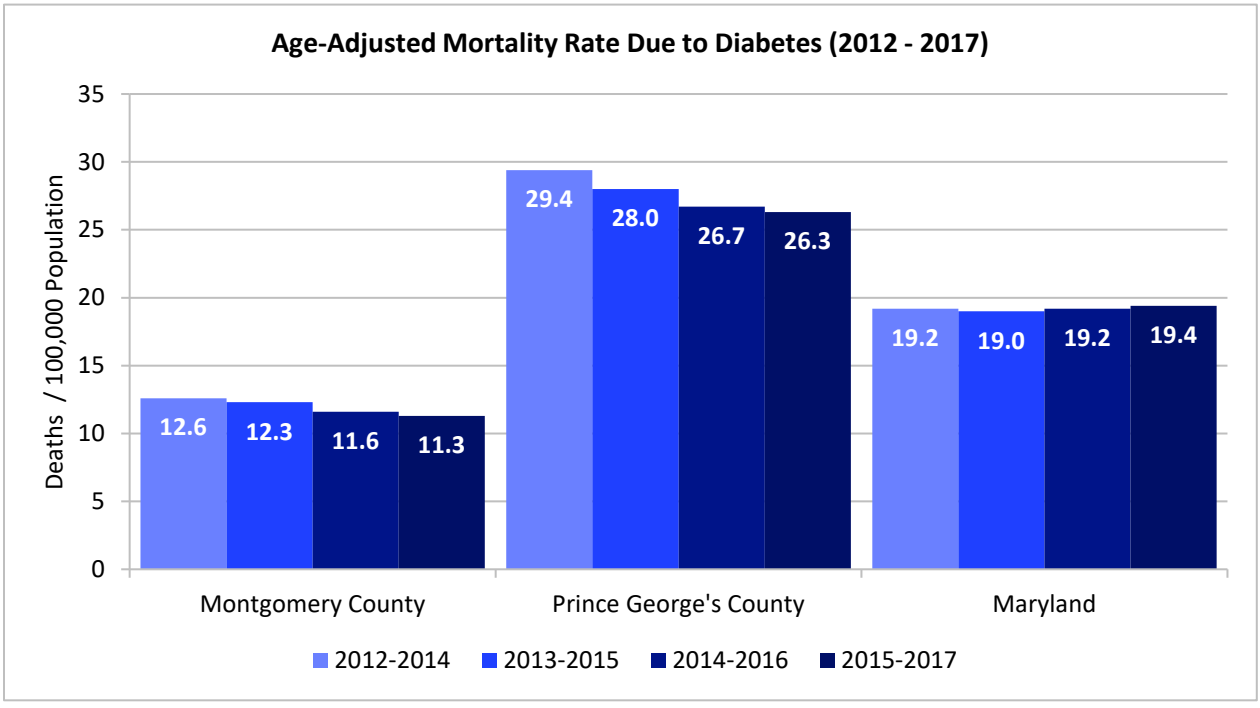


Figure 12. Age-Adjusted Death Rate Due to Diabetes per 100,000 Population in Montgomery County, Prince George's County, and Maryland, 2012 - 2017
(Source: Maryland Department of Health and Mental Hygiene (DHMH), 2019)

- When stratified by race and ethnicity, the mortality rate due to diabetes disproportionately affects Black/African-American individuals in both Montgomery and Prince George's County (Figure 13).
- Black/African-American's in Montgomery County have a mortality rate which is 2.2X higher than the overall average for the county. Additionally, the mortality rate is more than 3X higher when compared to the Asian/Pacific Islander individuals who have the lowest rate overall (7.8 per 100,000) (Figure 13).
- In Prince George's County, Black/African-American individuals have a rate that is 1.5X higher than Hispanic and 1.4X higher than White individuals (Figure 13).

- When comparing the two counties overall, Prince George's age-adjusted mortality rate due to diabetes is 2.2X higher than Montgomery County (Figure 13).
- When comparing the same racial/ethnic group across county lines, White individuals in Prince George's County have the largest gap (1.8X higher) than White individuals in Montgomery County (Figure 13).

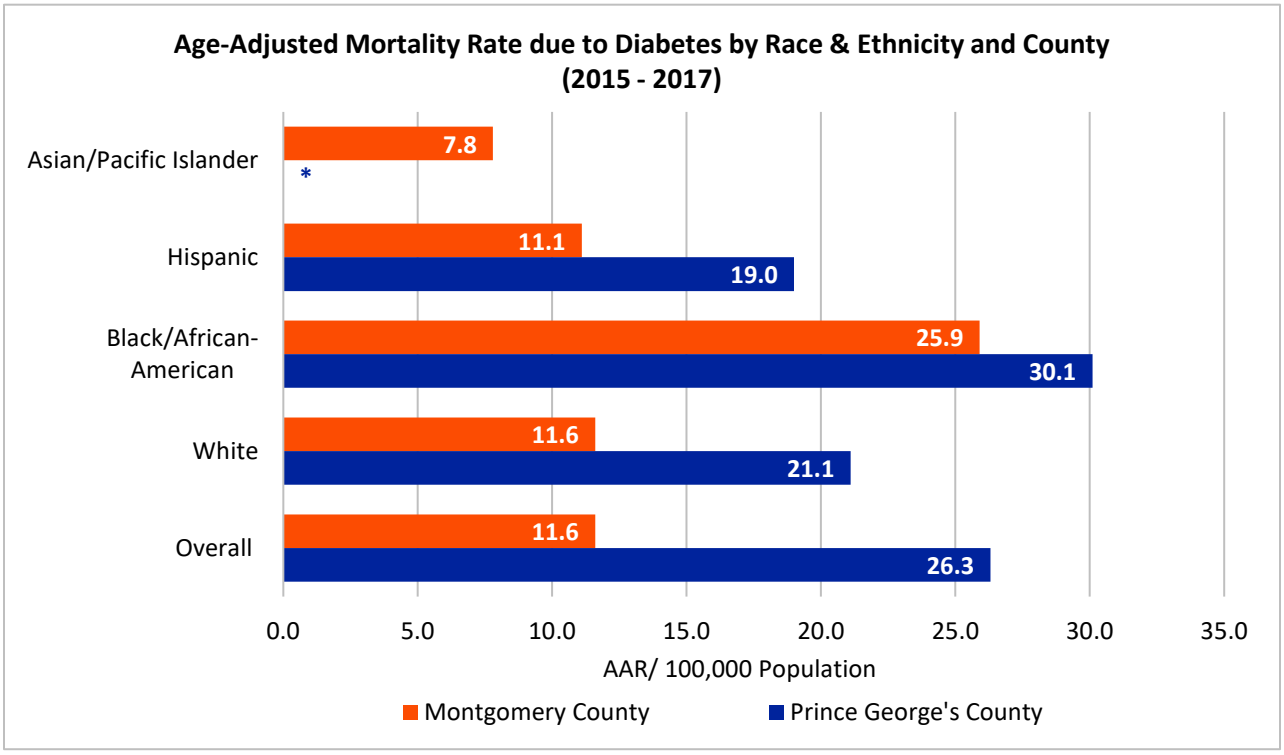


Figure 13. Age-Adjusted Mortality Rate due to Diabetes by Race & Ethnicity in Montgomery County and Prince George's County (2015 – 2017)
*Data unavailable/not applicable
(Source: Healthy Montgomery Core Measures Report & PGC Health Zone, 2019)

- The age-adjusted mortality rate due to diabetes by gender is highest among males for both counties (Figure 14).
- Prince George's County has the highest mortality rate for both genders and overall when compared to Montgomery County (Figure 14).

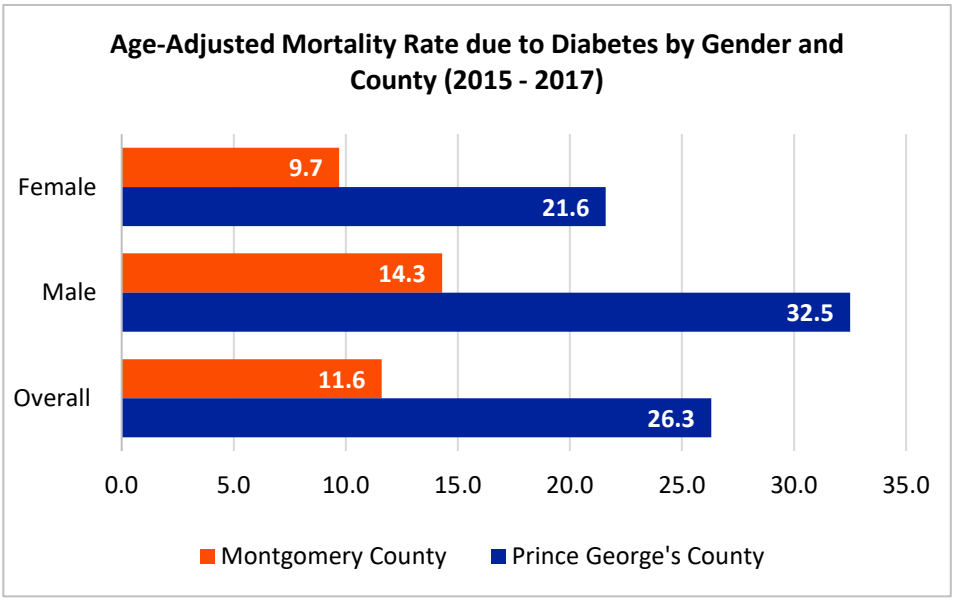


Figure 14. Age Adjusted Mortality due to Diabetes by Gender and County, 2015 – 2017
(Source: Healthy Montgomery Core Measures Report & PGC Health Zone, 2019

- In Montgomery County, when looking at the age-adjusted mortality rate due to diabetes by age, the highest rate is among individuals 65+ (Figure 15).
- Individuals aged 65+ have a rate which is 343X larger than the reference group, individuals aged 18 – 34 (Figure 15).

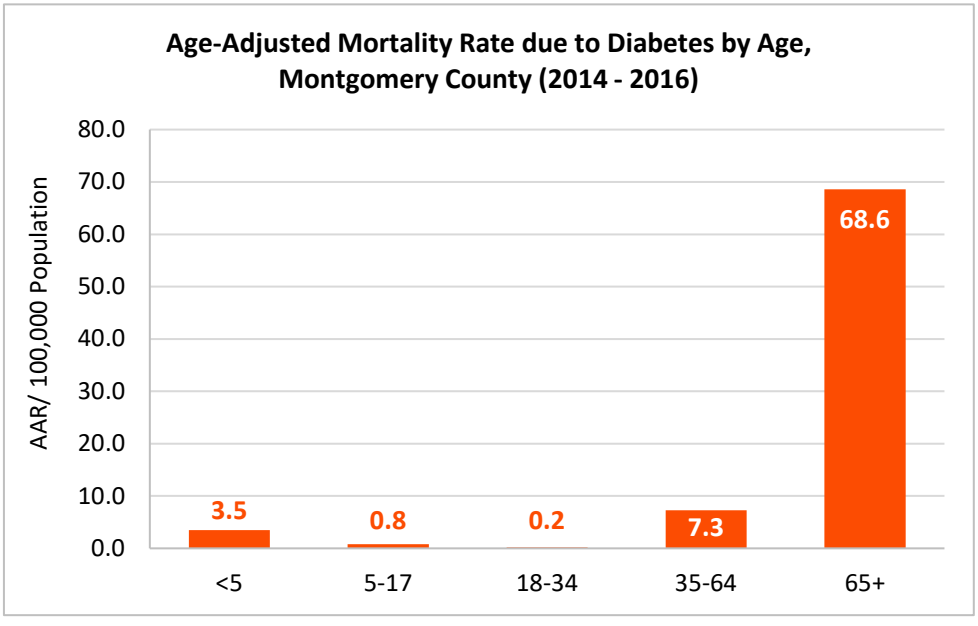


Figure 15. Age-Adjusted Mortality Rate due to Diabetes by Age in Montgomery County (2015 – 2017)
(Source: Healthy Montgomery Core Measures Report, 2019)

Amputees

- In the United States, there are currently 1.9 million people living with limb loss and an average of 507 amputations every day.[13]
- The majority of amputations in the United States are caused by complications of vascular diseases such as diabetes and peripheral arterial disease. Other causes are trauma and cancer (Figure 16).

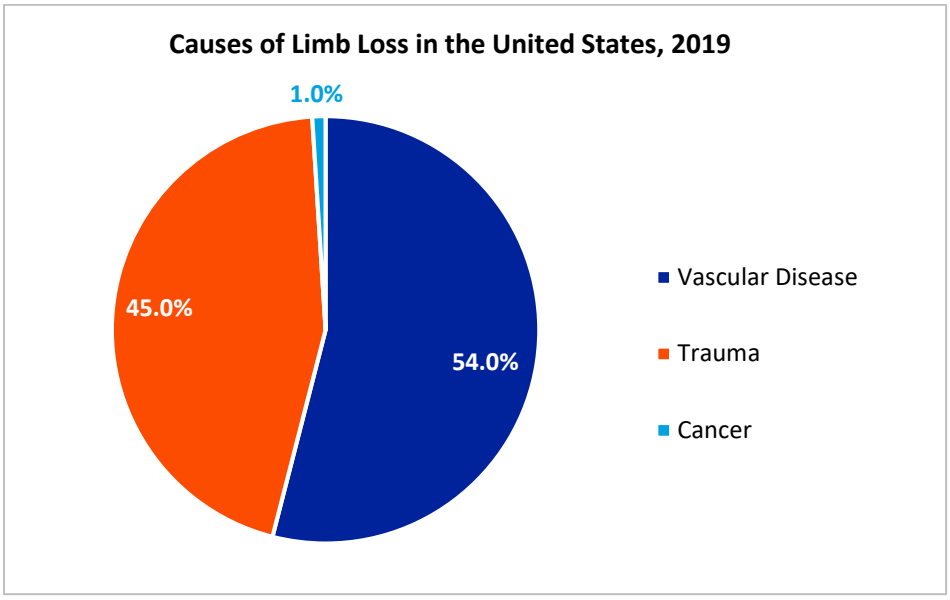


Figure 16. Causes of Limb Loss in the United States, 2019
(Source: Amputee Coalition)

Maryland Data

- Hospitals across Maryland reported a total of 3,157 amputations in 2014.
- There has been a 5.66 percent increase in the number of amputations since 2009, when amputations were at a low (Figure 17).
- According to the Amputee Coalition, limb loss will continue to rise due to the prevalence of vascular diseases.

[13] Amputee Coalition (2019). *Factsheet: Maryland*. Retrieved from https://www.amputee-coalition.org/resources/maryland-2/

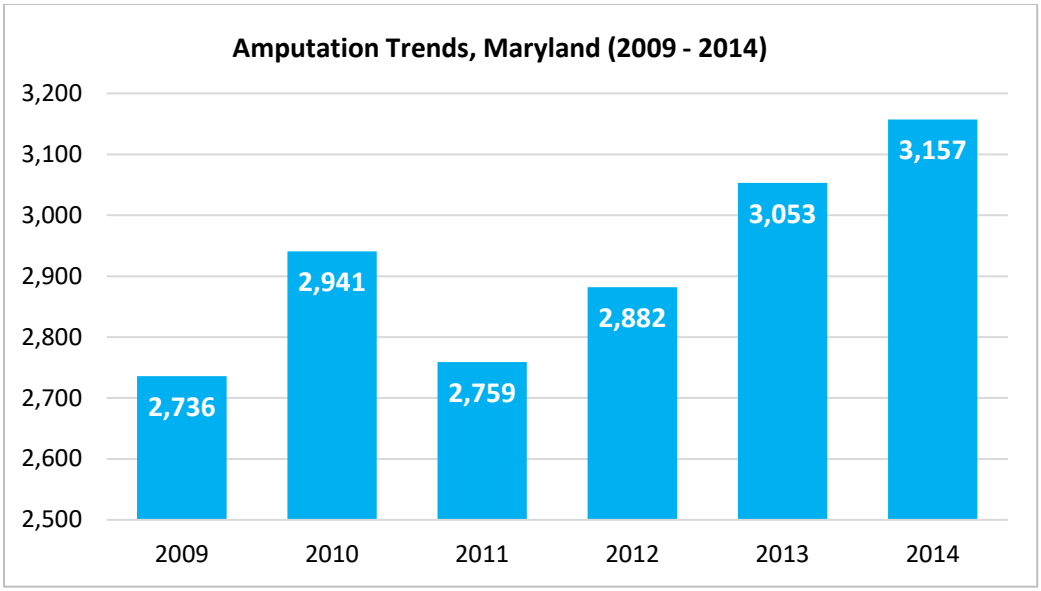


Figure 17. Amputation Trends, Maryland 2009-2014
(Source: Amputee Coalition)

- Amputations are categorized into two groups: upper extremity and lower extremity. There was a total of 150 upper extremity and 2,979 lower extremity amputations performed in 2014 (Figure 18).

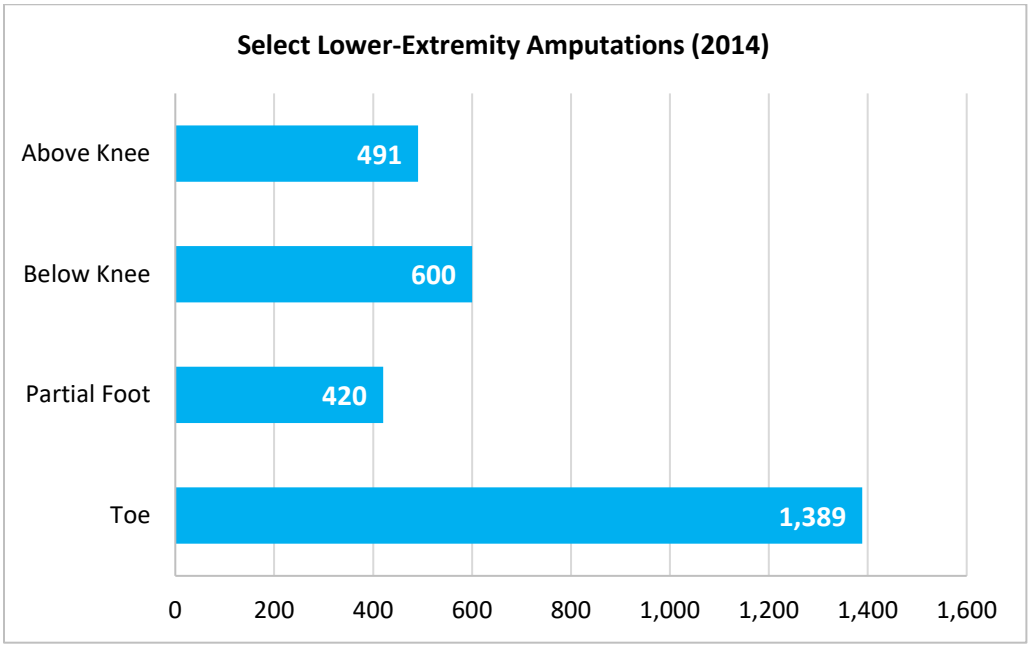


Figure 18. Select Lower-Extremity Amputations, 2014
(Source: Amputee Coalition)

- Deconstructing the statewide data by race and ethnicity shows that the majority of amputee patients are White (Figure 19). However, the Black population is most disproportionately affected by amputations.

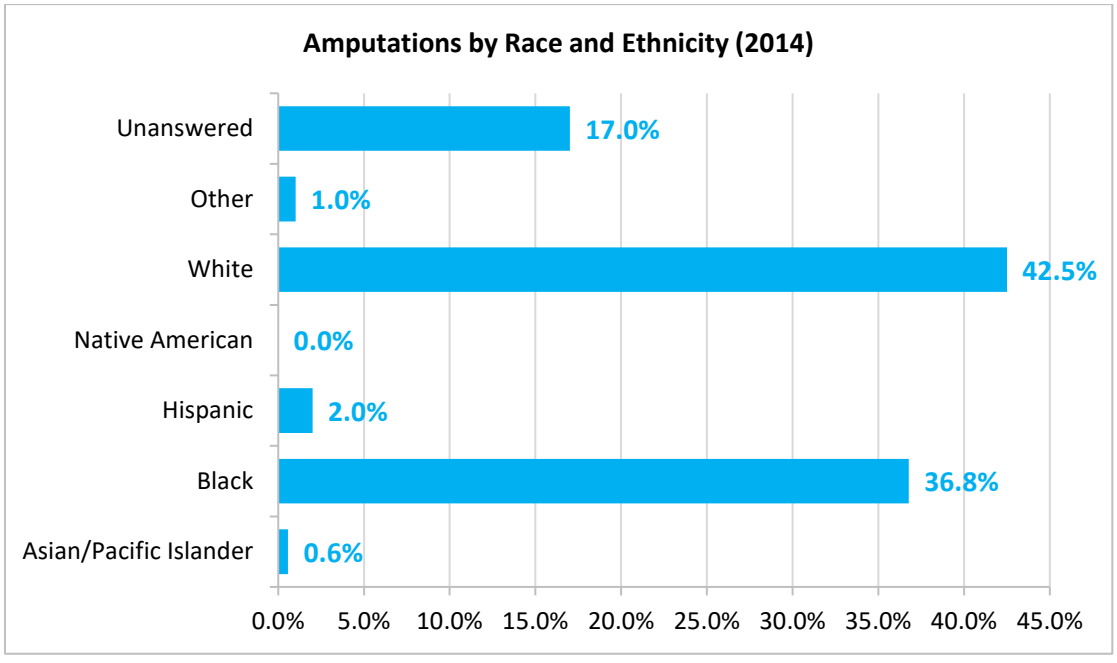


Figure 19. Amputations by Race and Ethnicity, 2014
(Source: Amputee Coalition)

- When stratified by age and sex, the group with the highest rate of amputations is the 45-64 year old and males (Figure 20 and 21).

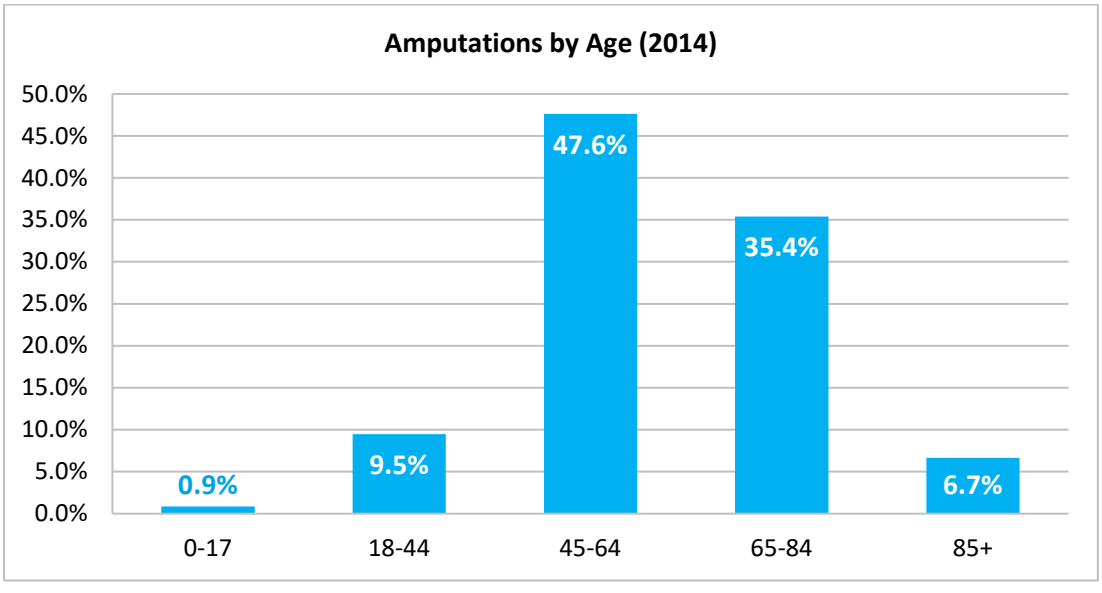


Figure 20. Amputations by Age, 2014
(Source: Amputee Coalition)

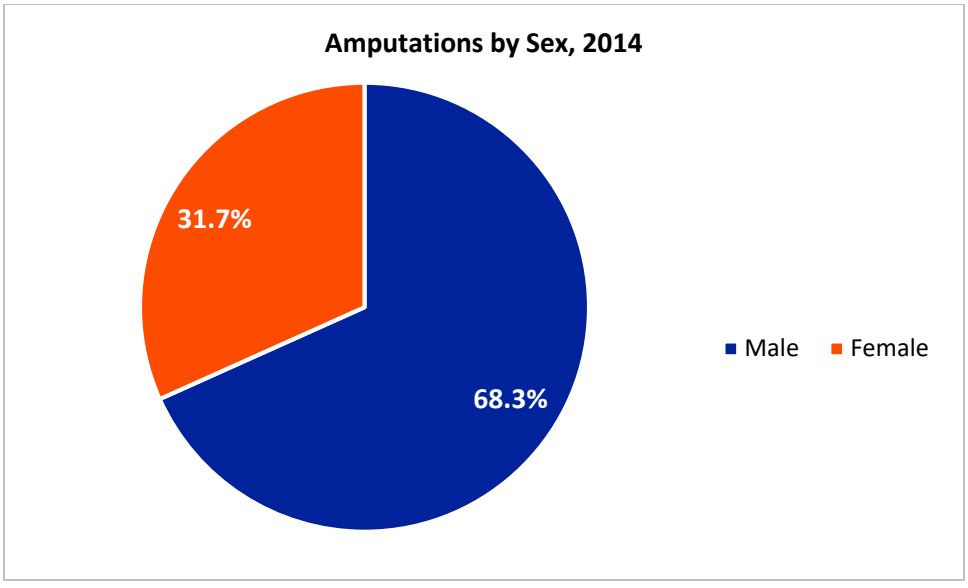


Figure 21. Amputations by Sex, 2014
(Source: Amputee Coalition)

- Most amputees in Maryland were enrolled in Medicare, followed by private insurance (Figure 22).

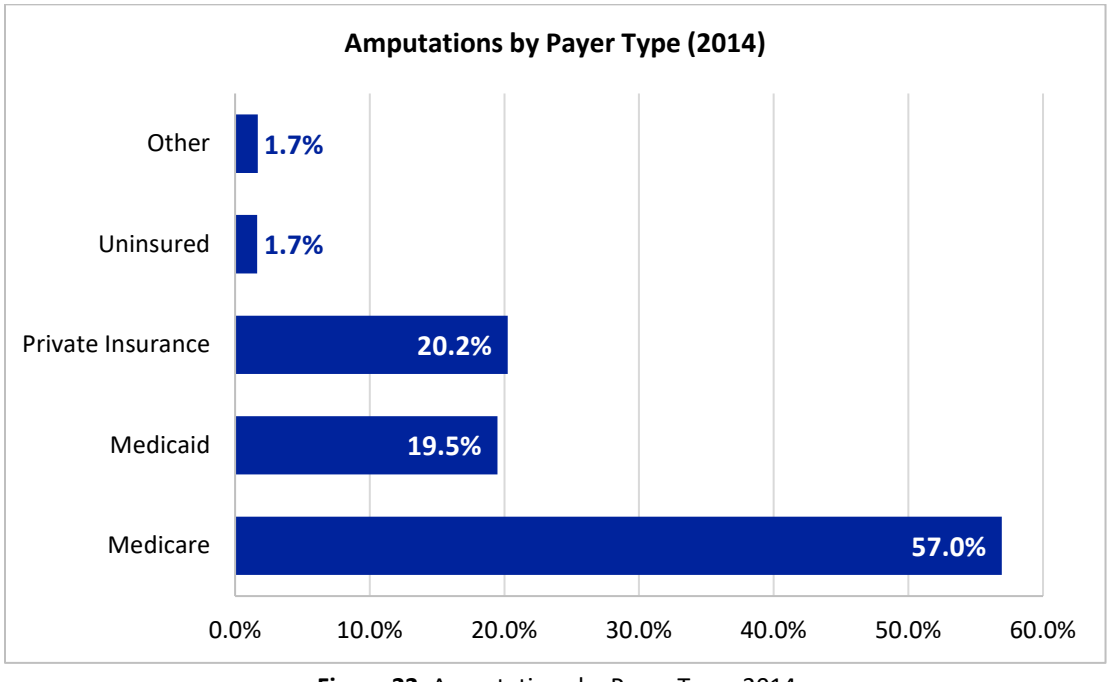


Figure 22. Amputations by Payer Type, 2014
(Source: Amputee Coalition)

Hospital Data

- In 2018, Adventist HealthCare Rehabilitation Hospital served 49 amputee patients.[14] The patients' average age was 62 years and they were mostly male patients (Figure 23).
- A racial breakdown of the patients served shows that most of the patients were White, followed by Blacks (Figure 23).

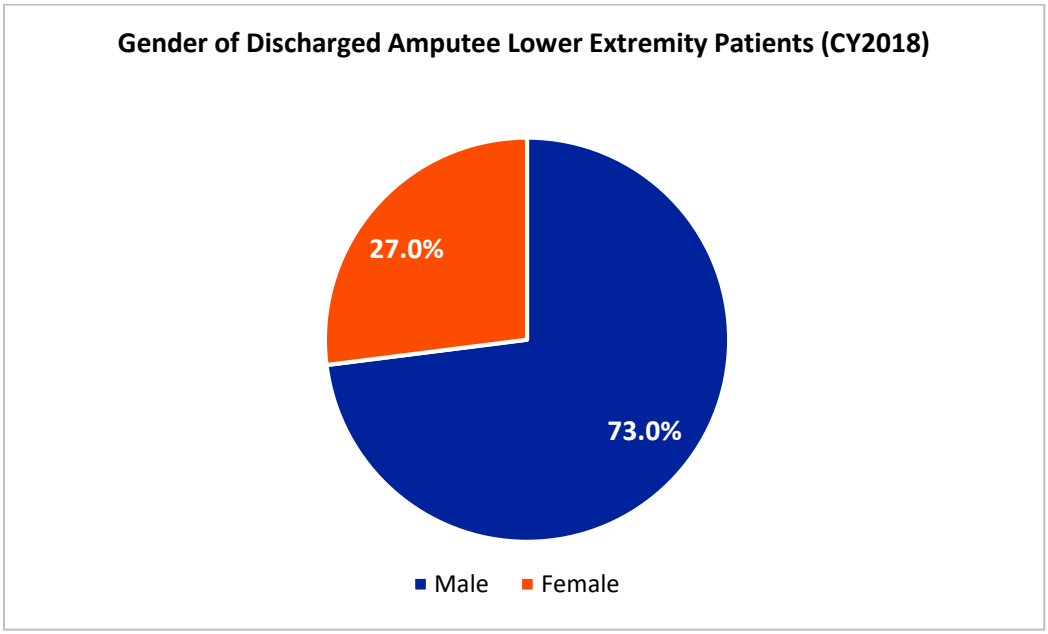


Figure 23. Gender of Discharged Amputee Lower Extremity Patients (CY2018)
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

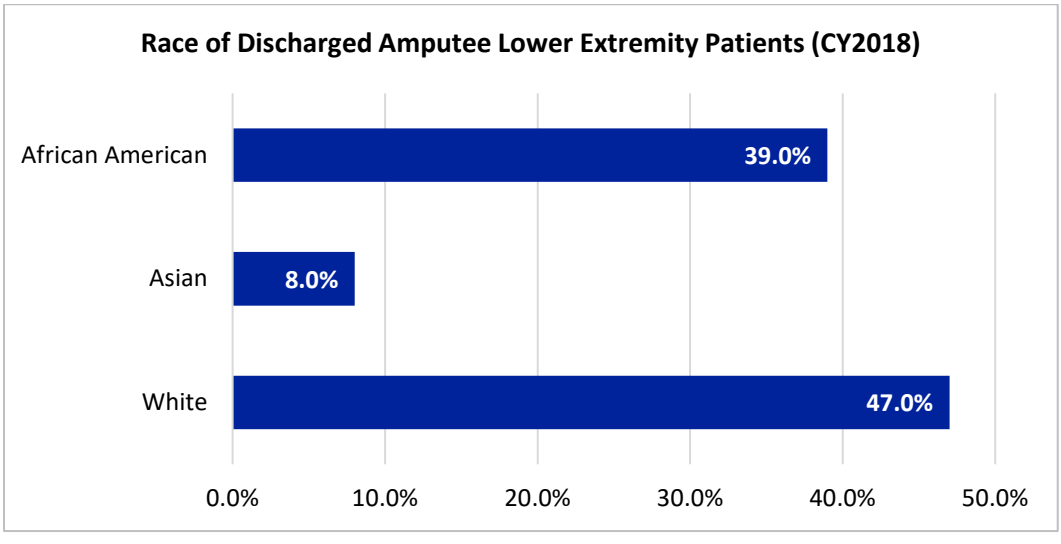


Figure 24. Race of Discharged Amputee Lower Extremity Patients (CY2018)
(Source: Adventist HealthCare Rehabilitation Hospital, 2019)

[14] Adventist HealthCare Rehabilitation Hospital

Community Resources

There are a variety of diabetes-related services and programs available for residents in Adventist HealthCare Rehabilitation Hospital Community Benefit Service Area. These include hospital-based, community-based, and health department programs and services:

1. **ADVENTIST HEALTHCARE (AHC)**
   Diabetes Education & Support
   Phone: 1-800-542-5096 (Registration line)
   Website:
   https://www.adventisthealthcare.com/services/diabetes-care-endocrinology/education-support/

   Diabetes Self-Management Education and Support (DSMES)
   Phone: 301-891-6105 (White Oak, MD) or 301-315-3129 (Rockville, MD)
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=788f34bf-cc14-e311-a8cd-2c768a4e1b84

   Diabetes Cooking Class
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=c85b6b82-c58e-e911-a81c-000d3a611ea2

   Prediabetes Class
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=335eb721-a98e-e911-a81c-000d3a611ea2

   Living Well with Diabetes
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=c45986f4-4298-e911-a81e-000d3a611ea2

   Gestational Diabetes
   Website:
   https://www.adventisthealthcare.com/calendar/details/?eventId=d4d5afda-c050-e511-8d72-2c768a4e1b84

2. **PRINCE GEORGE'S COUNTY - DIABETES**
   Address: 9314 Piscataway Rd
   Clinton, MD 20735
   Phone: 301-856-9643
   Website:
   https://www.princegeorgescountymd.gov/2090/Diabetes

3. **MONTGOMERY COUNTY – DEPARTMENT OF HEALTH AND HUMAN SERVICES**
   Online Diabetes Education
   Phone: 240-777-1833
   Website:
   https://www2.montgomerycountymd.gov/mcgportalapps/Press_Detail.aspx?Item_ID=22884

   Senior Nutrition Program
   Address: 401 Hungerford Drive, Rockville, MD 20850
   Phone: 240-777-3000
   Website:
   https://www.montgomerycountymd.gov/hhs-program/program.aspx?id=ads/adsseniornutr-p190.html

4. **UNIVERSITY OF MARYLAND CAPITAL REGION HEALTH – DIABETES CARE**
   Phone: 301-618-6555
   Website: https://www.umms.org/capital/health-services/diabetes

5. **AMERICAN DIABETES ASSOCIATION**
   Summer Camps
   Phone: 1-800-342-2383
   Website: https://www.diabetes.org/community/camp/find-a-camp

6. **AFRICAN AMERICAN HEALTH PROGRAM – DIABETES/ HEART HEALTH**
   Address: 14015 New Hampshire Avenue Silver Spring, MD 20904
   Phone: 240-777-1833
   Email: info@aahpmontgomerycounty.org
   Website: www.aahpmontgomerycounty.org

7. **UNIVERSITY OF MARYLAND EXTENSION**
   Prince George's County
   Address: 6707 Groveton Drive Clinton, MD 20735
   Phone: 301-868-9366
   Email: nfitzhu@umd.edu
   Website: https://extension.umd.edu/prince-georges-county

   Montgomery County
   Address: 18410 Muncaster Road Derwood, MD 20855
   Phone: 301-590-9638
   Email: yingling@umd.edu
   Website: https://extension.umd.edu/montgomery-county

8. **RIGHT AT HOME**
   Prince George's County
   Address: 1450 Mercantile Lane Suite 127 Upper Marlboro, MD 20774
   Phone: 301-738-2225
   Website: https://www.rightathome.net/upper-marlboro

   Montgomery County
   Address: 11821 Parklawn Drive Suite 302 Rockville, MD 20852
   Phone: 301-255-0066
   Website: https://www.rightathome.net/rockville-maryland

9. **ASIAN AMERICAN HEALTH INITIATIVE**
   Address: 1401 Rockville Pike, 3rd Floor Rockville, MD 20852
   Phone: 240-777-4517
   Email: info@aahiinfo.org
   Website: http://aahiinfo.org/

10. **HOLY CROSS HEALTH – DIABETES PREVENTION AND EDUCATION**
    Outpatient Diabetes Self-Management Education
    Phone: 301-754-8200
    Website: http://www.holycrosshealth.org/body.cfm?id=862&fr=true

    Diabetes Prevention Program
    Phone: 301-557-1231
    Website: http://www.holycrosshealth.org/body.cfm?id=860&fr=true

    Gestational Diabetes Program
    Phone: 301-754-7449
    Website: http://www.holycrosshealth.org/body.cfm?id=861&fr=true

11. **Adventist Healthcare - Rehabilitation Services**
    For free support groups and available community resources call or visit:
    Phone: 1-800-542-5096
    Website: Adventist HealthCare Classes & Events

12. **Amputee Coalition**
    Website: https://www.amputee-coalition.org/

13. **Disability Partnerships**
    Website: http://www.disabilitypartnerships.org/

Section IV: Findings

Part B: Secondary Data

Chapter 7: Obesity

Obesity

KEY FINDINGS

Disparities & Indicators

- MC met the HP 2020 target (30.5) for adult **obesity** but PGC did not from 2012-2016
- In PGC, **females** have a higher % of **obese** adults and in MC, **males** have a higher % of **obese** adults
- MC met the HP 2020 target (16.1) for **obese among adolescents**, however, PGC did not in 2016

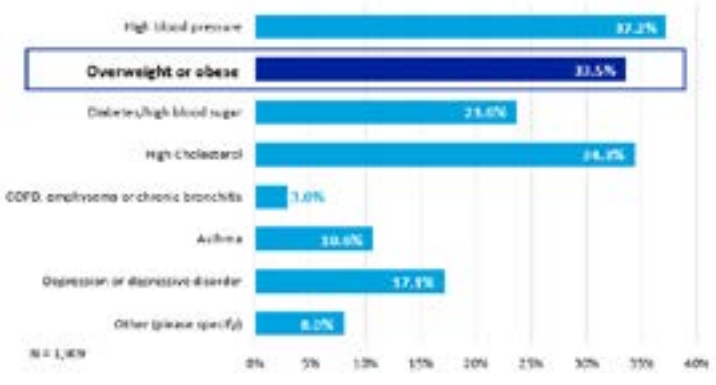
Trend Over Time

- In PGC the obesity trend was stable from 2012 - 2016

- MC had an increasing trend from 2012 - 2016 for adult obesity
- MC and PGC had an increasing trend from 2013 - 2016 for adolescent obesity

Community Perception

REHAB CBSA: "Has a doctor, nurse or other health professional ever said you have or are at risk for the following (select all that apply)?"[1]



"Provide nutrition counselors and cooking classes to counteract epidemic of obesity. Also teach people how to shop with in store counselors and educators."[2]

"Community should host exercise challenges."[3]

"Classes are offered during work hours, if you are working you cannot engage in free activities that improve your health."[4]

[1,3] Adventist HealthCare. (2019). Community Health Needs Assessment – Community Survey.
[2,4] Adventist HealthCare. (2019). Community Health Needs Assessment - Key Informant Interview.

Obesity

Impact

Adult obesity is defined as having a body mass index (BMI) greater than or equal to 30. Being overweight is defined as having a BMI of greater than or equal to 25. Obesity continues to be a highly prevalent condition in the United States with approximately 35 percent of adults and 17 percent of children 2 through 18 years of age qualifying as obese. Obesity is of particular concern because it is associated with many adverse health outcomes including heart disease, stroke, type 2 diabetes, and cancer. There also appear to be disparities in the burden of obesity across different demographic groups.[3,4]

Prevalence

- In Maryland, the rate for adult obesity has steadily increased over time. From 2015 to 2017, the rate increased from 28.9 to 31.3. Currently, Maryland has not met the Healthy People 2020 target of 30.5 (Figure 1).

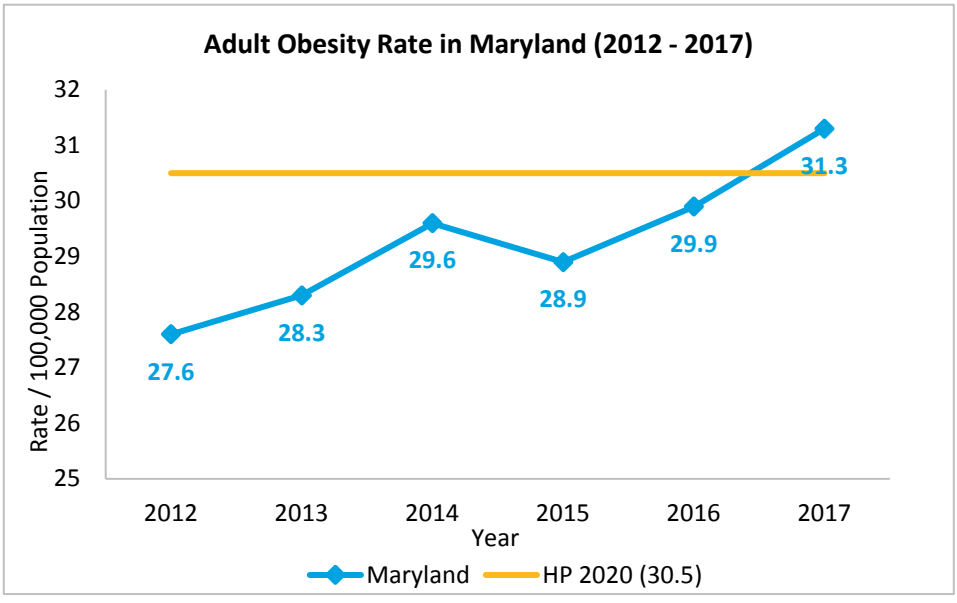


Figure 1. Adult Obesity Rate in Maryland, 2012 – 2017
(Source: Trust for America's Health, 2018)

[3] Centers for Disease Control and Prevention (CDC) – Division of Nutrition, Physical Activity, and Obesity, & National Center for Chronic Disease Prevention and Health Promotion. (2016). Childhood obesity facts. Retrieved from http://www.cdc.gov/obesity/data/childhood.html

[4] CDC - Division of Nutrition, Physical Activity, and Obesity, & National Center for Chronic Disease Prevention and Health Promotion. Adult obesity facts. Retrieved, from: http://www.cdc.gov/obesity/data/adult.html

- In Maryland, the obesity rate was highest among Black/African-American individuals, women, and individuals aged 45 to 64 (Figure 2 and Figure 3).

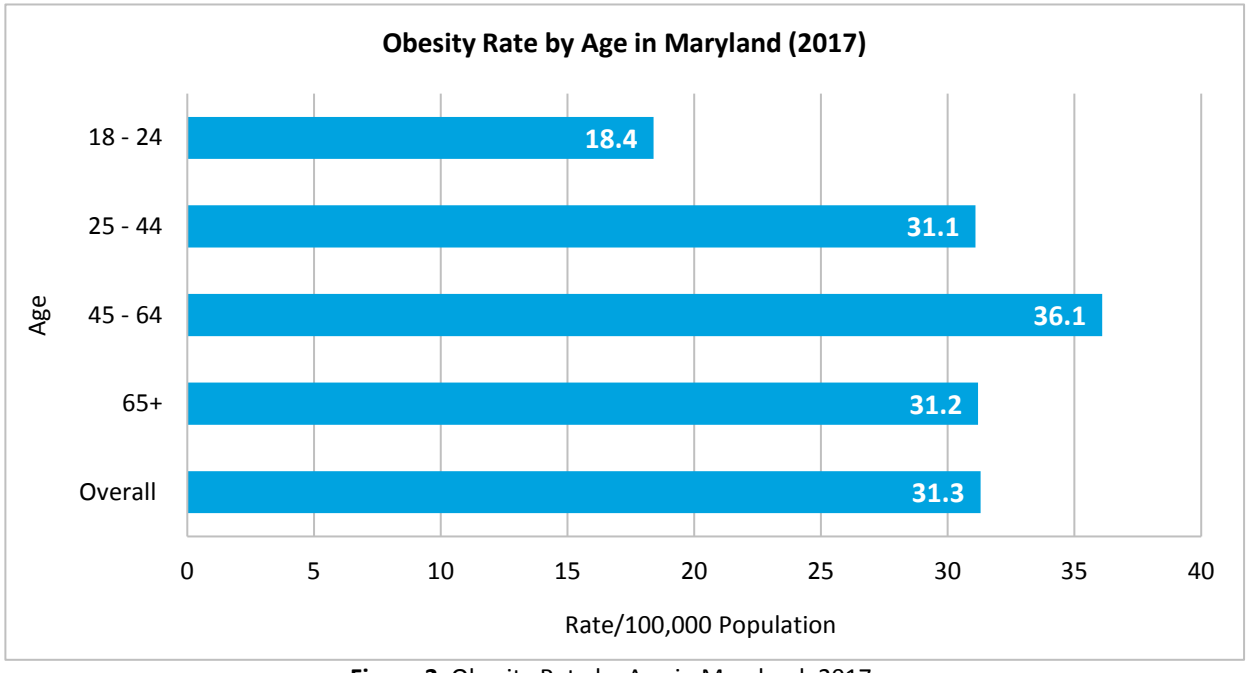


Figure 2. Obesity Rate by Age in Maryland, 2017
(Source: The State of Obesity, 2018)

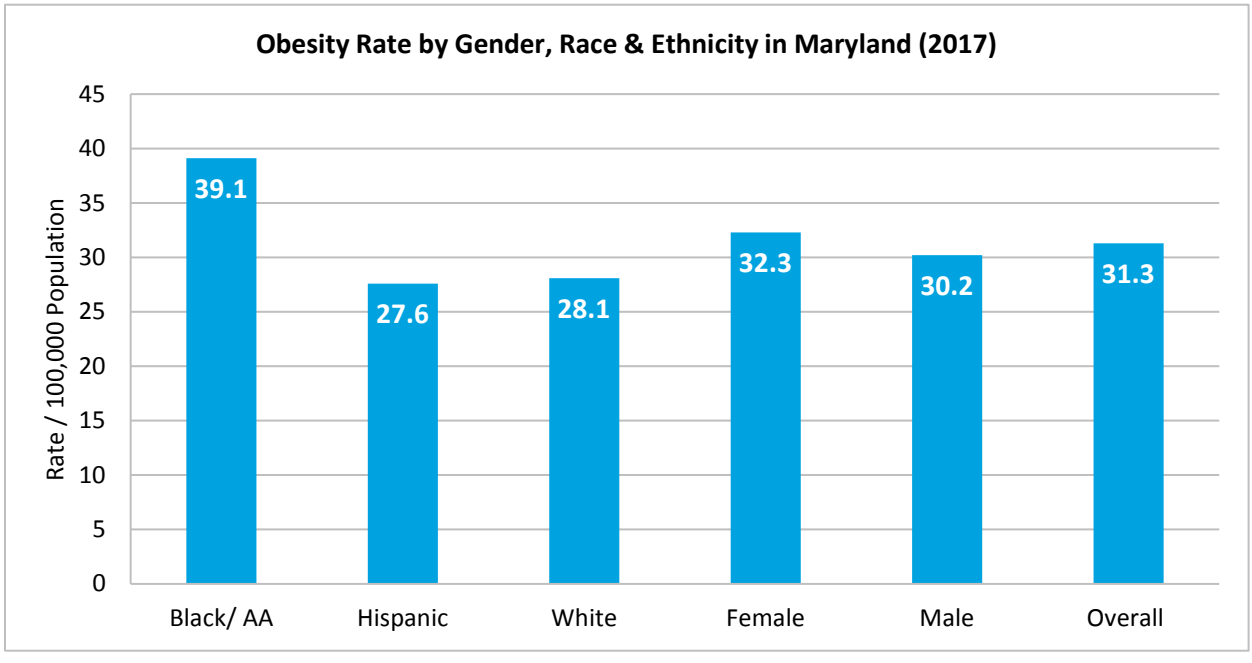


Figure 3. Obesity Rate by Gender, Race & Ethnicity in Maryland, 2017
(Source: The State of Obesity, 2018)

- Prince George's County did not meet the target set forth by Healthy People 2020 for the percentage of its residents who are obese (Figures 4).
- Montgomery County and Maryland met the Healthy People 2020 target for the percentage of its residents who are obese (Figure 4).

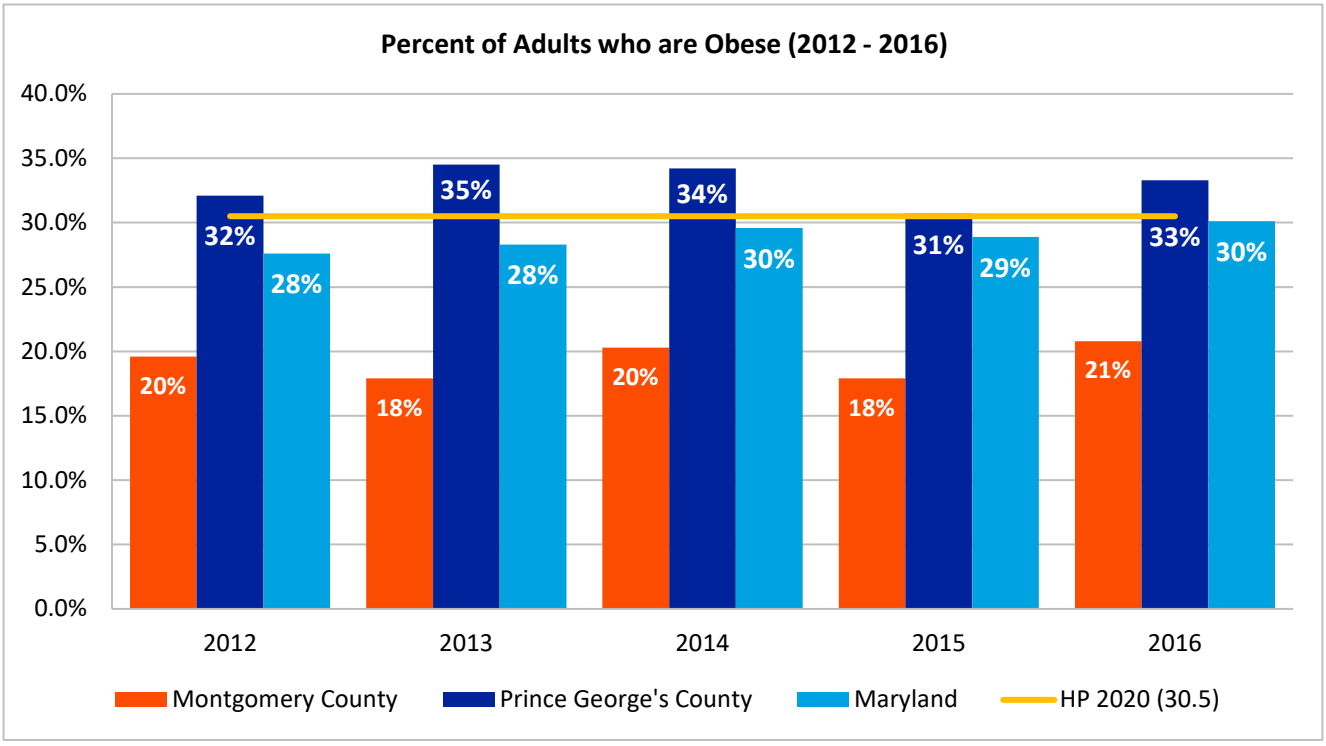


Figure 4. Percentage of Adults Who Are Obese, 2012 – 2016
(Source: Healthy Montgomery & PGC Health Zone, 2017)

- In 2016, Prince George's County had the highest percentage of adults who are overweight or obese with 72.2 percent when compared to Montgomery County and Maryland (Figure 5).
- Montgomery County had the lowest percentage of overweight or obese adults with 58.7 percent when compared to Maryland and Prince George's County (Figure 5).

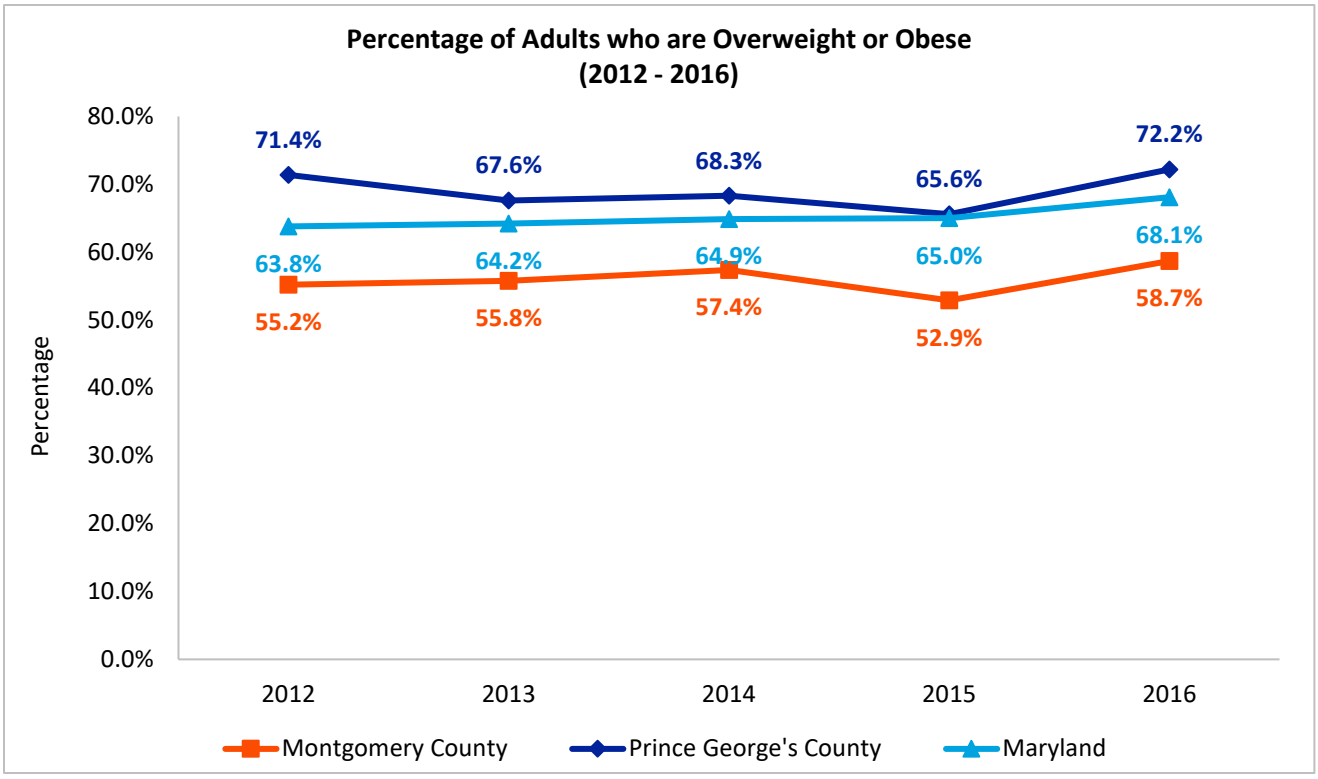


Figure 5. Percentage of Adults Who Are Overweight or Obese, 2012 – 2016
(Source: Healthy Montgomery & PGC Health Zone, 2017)

- In Montgomery County, only 36.7 percent of Asians are overweight or obese compared to 76.6 percent of Hispanics and 67.9 percent of Blacks (Figure 6).
- In Prince George's County, 74.8 percent of Black residents and 76 percent of those classified as "Other" are overweight or obese compared to 66 percent of Whites, 55 percent of Hispanics and 21.2 percent of Asians (Figure 6).

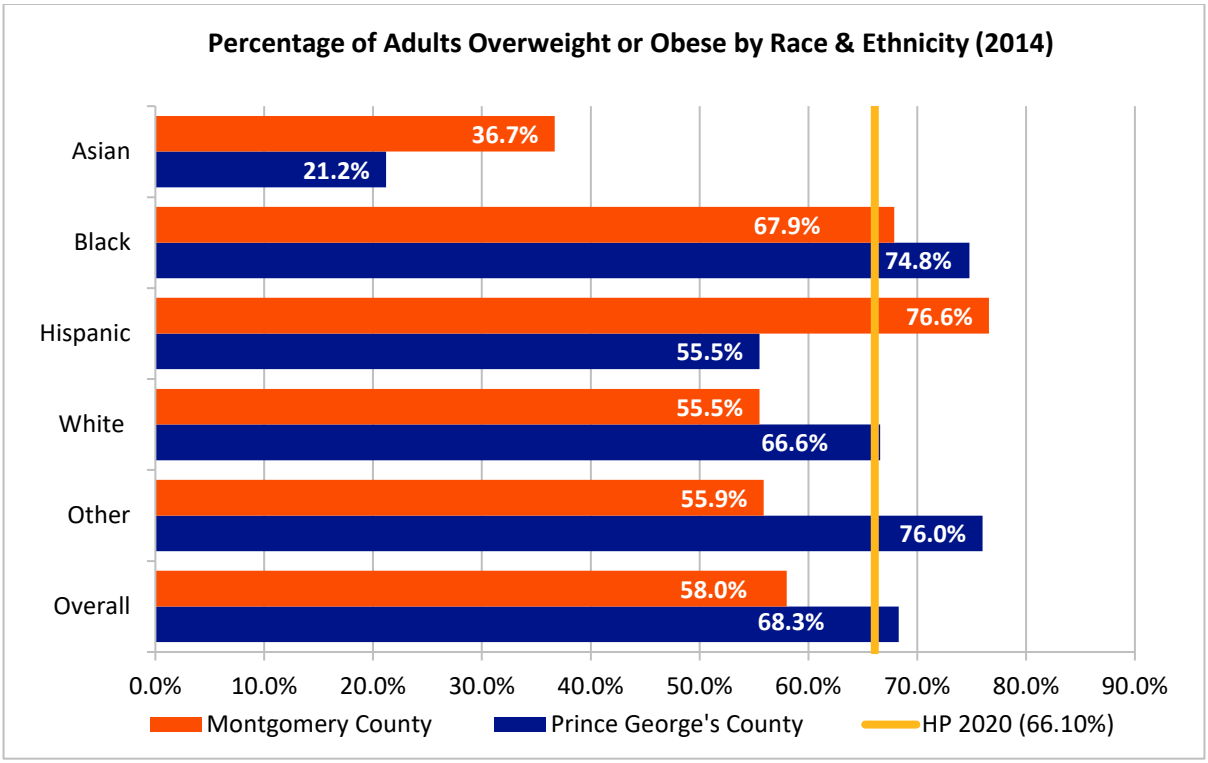


Figure 6. Percentage of Adults Who Are Overweight or Obese by Race & Ethnicity in Montgomery County and Prince George's County, 2014
(Source: Maryland BRFSS, 2014)

- Females are more likely to be obese in Prince George's County at 39.2 percent compared to 30.8 percent of males (Figure 7).

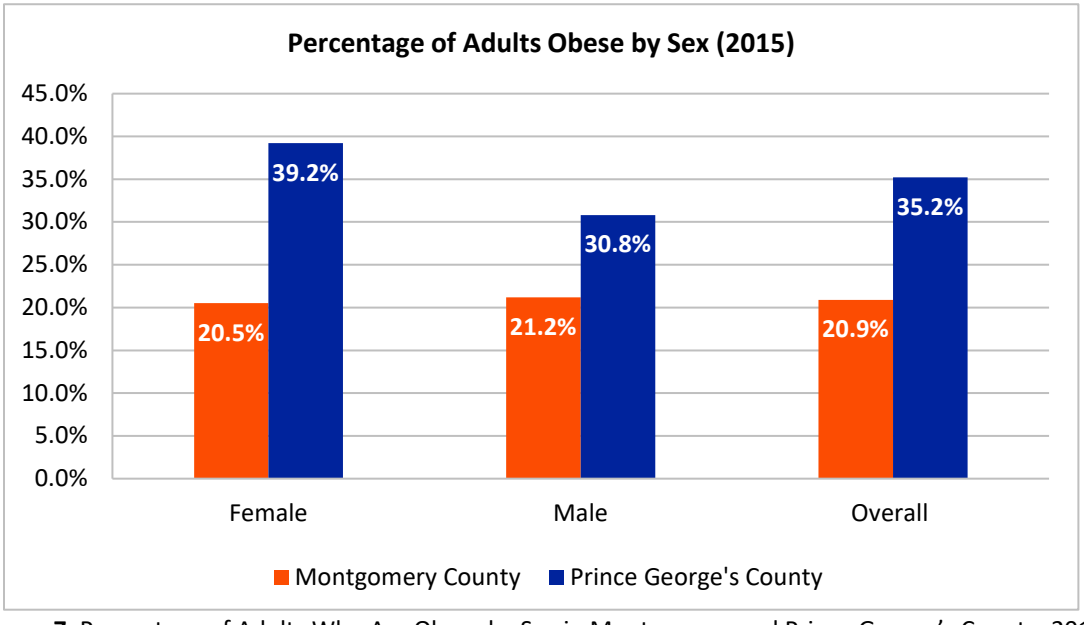


Figure 7. Percentage of Adults Who Are Obese by Sex in Montgomery and Prince George's County, 2015
(Source: CARES - Montgomery County & CARES - Prince George's County, 2016)

- By age, the proportion of overweight or obese individuals increases with each age bracket except in Montgomery County, where there is a slightly lower rate of obesity in the 65+ population compared to the 45 to 64-year-old population (Figure 8).

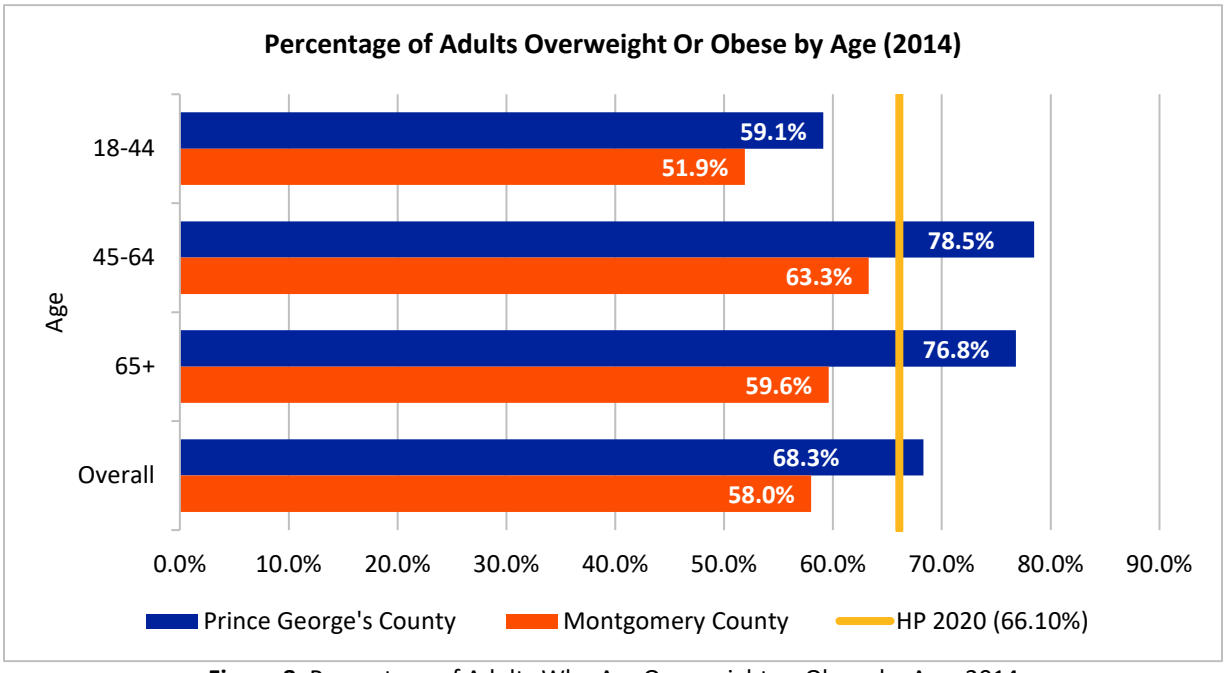


Figure 8. Percentage of Adults Who Are Overweight or Obese by Age, 2014
(Source: Maryland BRFSS, 2014)

Childhood Obesity

As of 2019, the CDC reports that 18.5 percent of children and adolescents 2 to 19 years of age in the U.S. are obese. Similar to adults, Hispanic and Black children are disproportionately burdened with 25.8 percent and 22.0 percent obese, respectively, compared to 14.1 percent of white children.[5]

[5] CDC – Division of Nutrition, Physical Activity, and Obesity. (2019). Childhood obesity facts. Retrieved October 3, 2019, from https://www.cdc.gov/obesity/data/childhood.html

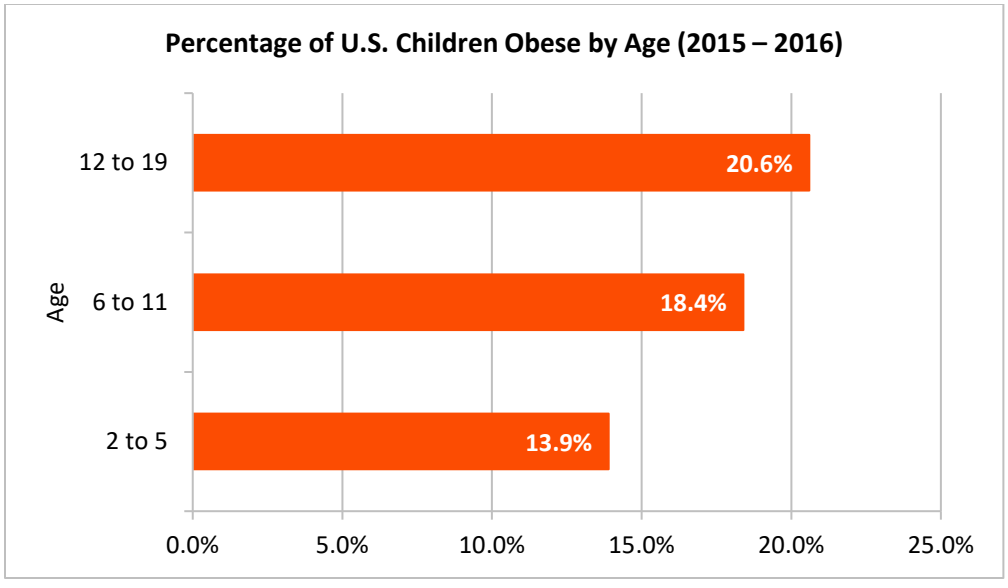


Figure 9. Percentage of U.S. Children Obese by Age, 2015 – 2016
(Source: NCHS Data Brief, 2017)

Adolescents

- Prince George's County has a higher percentage and increasing trend of adolescent obesity when compared to Montgomery County and Maryland with 16.4 percent in 2016 (Figure 10).
- Both Maryland and Montgomery County met the Healthy People 2020 target. However, Prince George's County did not (Figure 10).

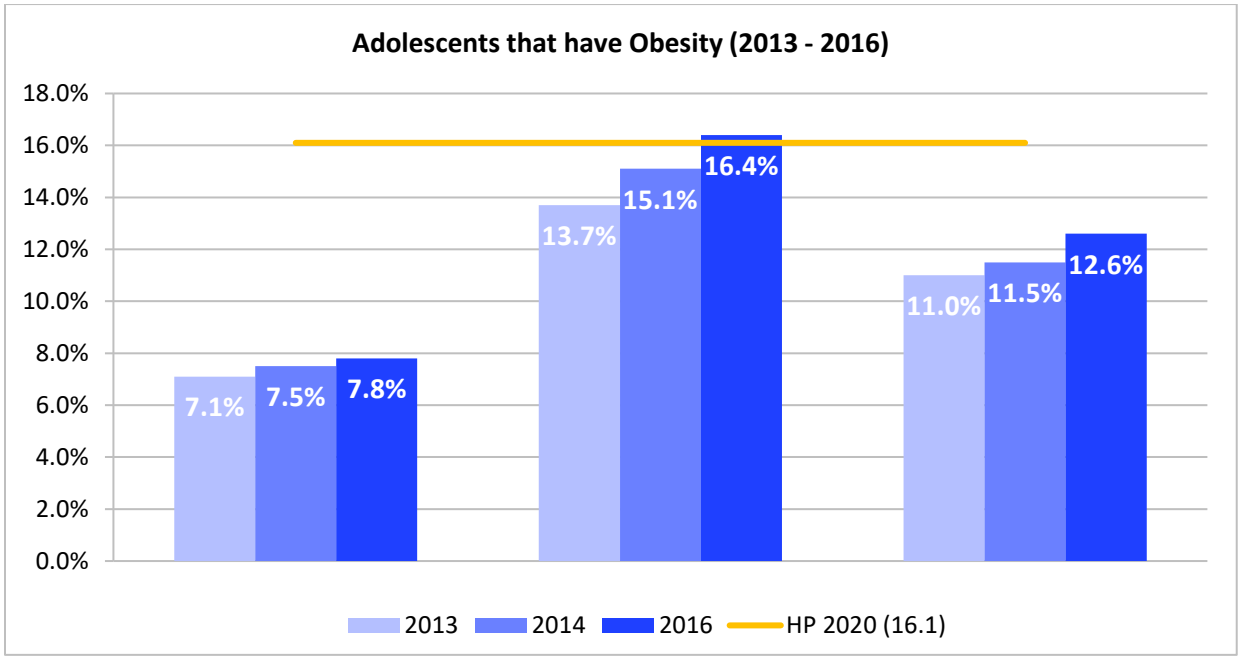


Figure 10. Adolescents That Have Obesity, 2013 – 2016
(Source: PGC Health Zone & Healthy Montgomery, 2017)

- Over time, every race has steadily increased in percentage of adolescents that have obesity (Figure 11).
- In 2016, Black/African-Americans and Hispanics had the highest percentage of adolescents with obesity with 16.3 and 14.8. Black/African-Americans do not meet the Healthy People 2020 target (Figure 11).

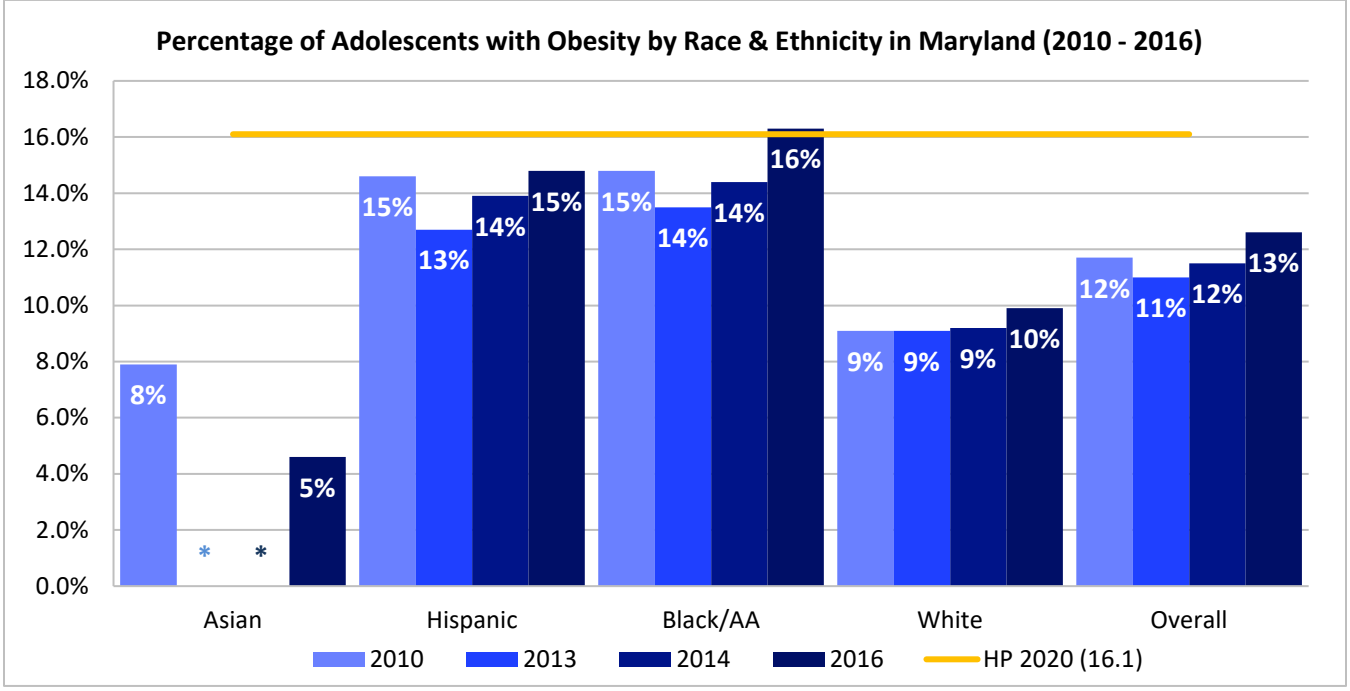


Figure 11. Percentage of Adolescents That Have Obesity by Race/Ethnicity in Maryland, 2010 – 2016
*Data unavailable/not applicable
(Source: MD SHIP, 2016)

Healthy Weight Behaviors

According to County Health Rankings, Montgomery County was ranked first in the state of Maryland in 2019 for various health behaviors including: adult obesity; food environment index; physical activity; access to exercise opportunities; adult smoking; and excessive drinking. Prince George's County ranked 11th in the state for the same measure.[6]

Diet

- More adults in Montgomery County consumed at least 1 or more fruit per day compared to Maryland and Prince George's County, where 36 percent had no daily fruit consumption (Figure 12).

[6] University of Wisconsin: Population Health Institute. (2019). County Health Rankings. Retrieved from https://www.countyhealthrankings.org/app/maryland/2019/rankings/montgomery/county/outcomes/overall/snapshot

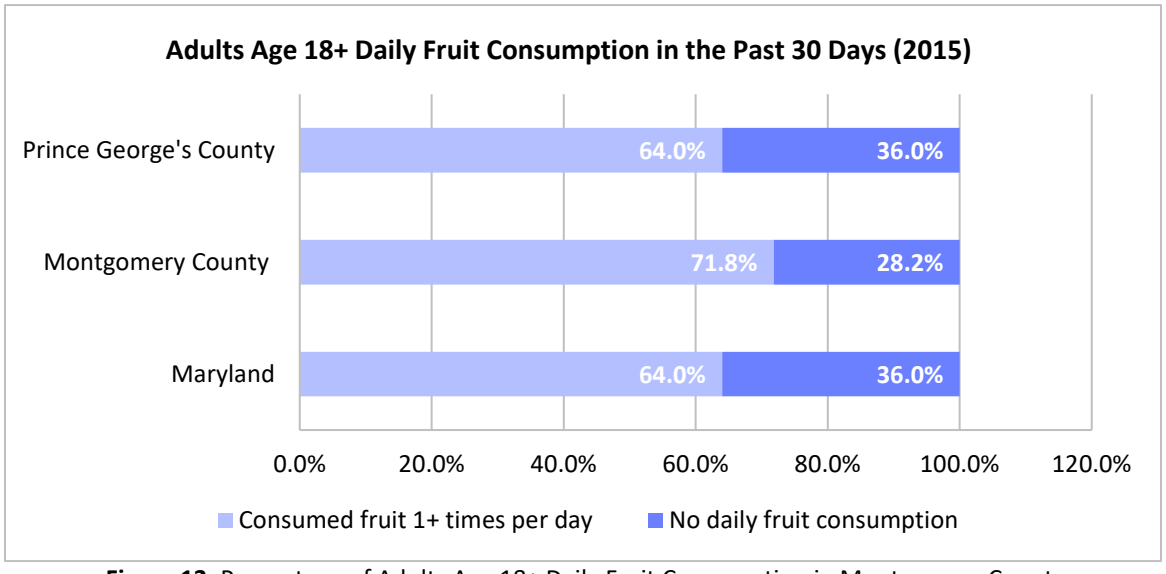


Figure 12. Percentage of Adults Age 18+ Daily Fruit Consumption in Montgomery County, Prince George's County, and Maryland, 2015
(Source: Maryland BRFSS, 2017)

- In Maryland and Prince George's County, over 20 percent of the adult population have no daily vegetable consumption compared to Montgomery County's 13.9 percent (Figure 13).

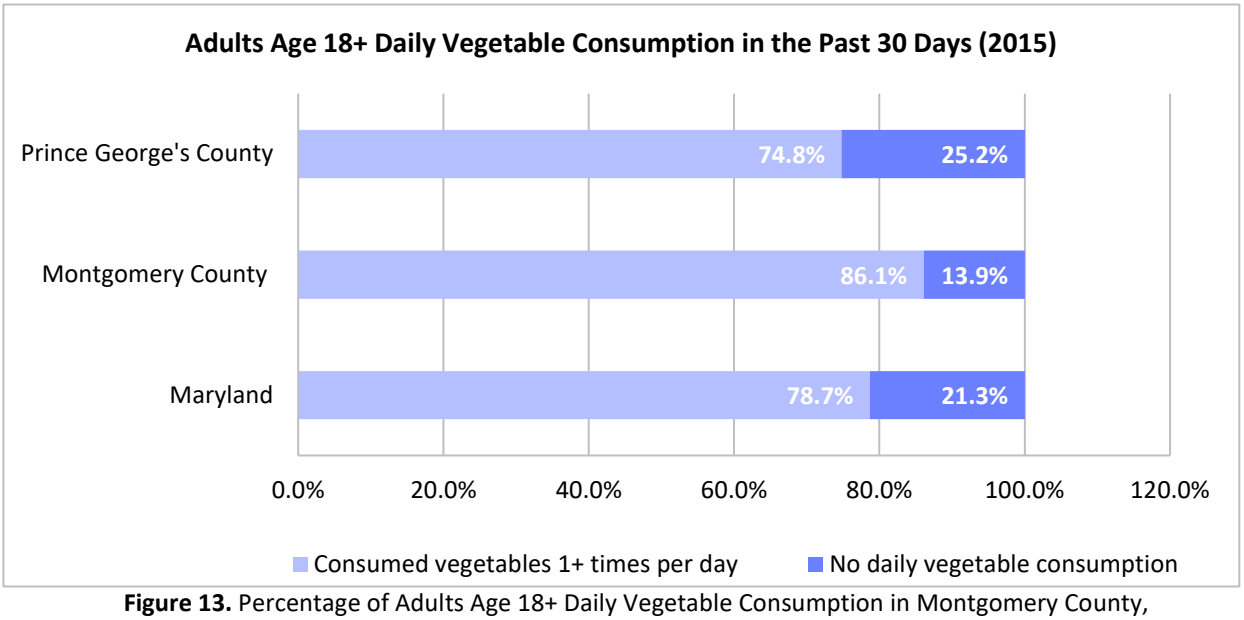


Figure 13. Percentage of Adults Age 18+ Daily Vegetable Consumption in Montgomery County, Prince George's County, and Maryland, 2015
(Source: Maryland BRFSS, 2017)

Physical Activity

- In 2015, adults in Montgomery County participated in leisure time physical activity in the past 30 days more often than those in Prince George's County or Maryland. However, both Prince George's County and Maryland have a high percentage of adults who participate in leisure time physical activity (Figure 14).

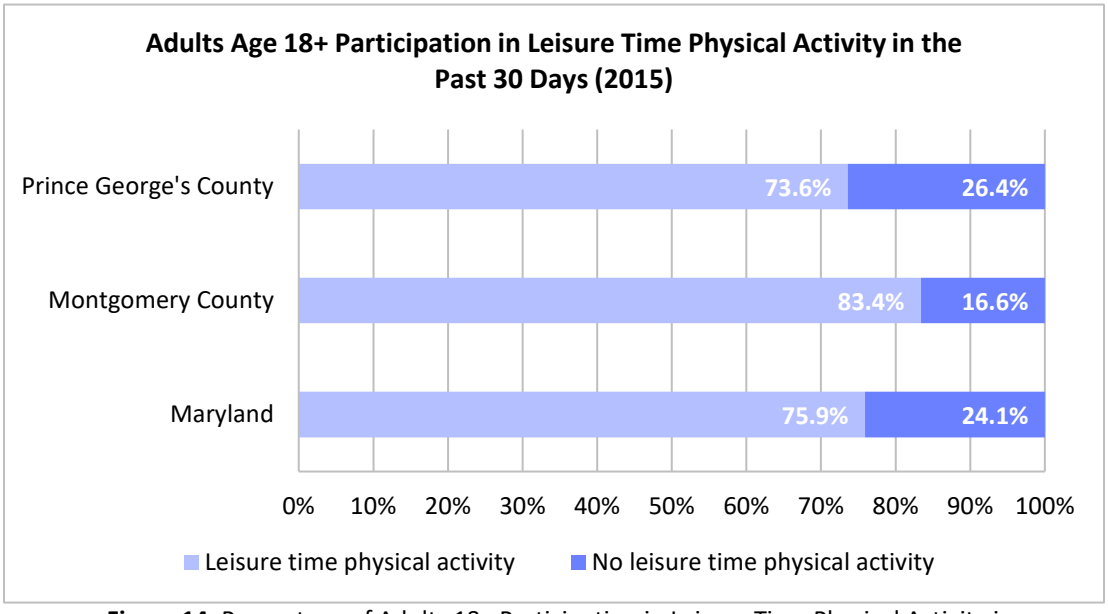


Figure 14. Percentage of Adults 18+ Participation in Leisure Time Physical Activity in Montgomery County, Prince George's County, and Maryland, 2015
(Source: Maryland BRFSS, 2017)

Community Resources

Services and resources for obesity are often incorporated within other programs addressing diabetes, heart disease, and cancer. In Adventist HealthCare White Oak Medical Center's Community Benefit Service Area, there are local efforts in schools, clinics, and recreational centers to reduce and prevent obesity. Services include, but are not limited to the following:

1. **PRINCE GEORGE'S COUNTY DEPARTMENTS OF PARKS AND RECREATION – HEALTH & WELLNESS**
   Address: 6600 Kenilworth Ave, Riverdale, MD 20737
   Phone: 301-699-2255
   Website: http://www.pgparks.com/856/Health-Wellness

2. **MONTGOMERY COUNTY PARKS – ACTIVITIES**
   Address: 9500 Brunett Avenue, Silver Spring, MD 20901
   Phone: 301-495-2581
   Email: ProgramAccess@MontgomeryParks.org
   Website: https://www.montgomeryparks.org/activities/

3. **PRINCE GEORGE'S COUNTY HEALTH SERVICES**
   Address: 9314 Piscataway Road, Clinton, MD 20735
   Phone: 301-856-9643
   Email: WellnessInfo@co.pg.md.us
   Website: https://www.princegeorgescountymd.gov/2102/Classes

4. **MONTGOMERY COUNTY DEPARTMENT OF HEALTH AND HUMAN SERVICES**
   Senior Nutrition Program
   Address: 401 Hungerford Drive, Rockville, MD 20850
   Phone: 240-777-3810
   Email: hhsmail@montgomerycountymd.gov
   Website: http://montgomery.md.networkofcare.org/mh/services/agency.aspx?pid=MontgomeryDepartmentofHealthandHumanServicesSeniorNutritionProgramSNP_680_2_0

   YMAC of Upper Montgomery County
   Address: 19236 Montgomery Village Avenue, Montgomery Village, MD 20886
   Phone: 301-740-7599
   Email: bpulgar@ymcawashdc.org
   Website: http://montgomery.md.networkofcare.org/mh/services/agency.aspx?pid=YMCAofUpperMontgomeryCounty_680_2_0

5. **ALLIANCE FOR A HEALTHIER GENERATION – RESOURCES**
   Phone: 1-888-KID-HLTH
   Website: https://www.healthiergeneration.org/resources

6. **IMPACT SILVER SPRING – SPORTS**
   Provides high quality recreational sports and enrichment for low-income and immigrant youth.
   Address: 8807 Colesville Road, Lower Level, Silver Spring, MD 20910
   Phone: 301-298-5117
   Email: info@impactsilverspring.org
   Website: https://impactsilverspring.org/sports

7. **REAL FOOD FOR KIDS – MONTGOMERY**
   Address: 12320 Parklawn Drive, Rockville, MD 20852
   Phone: 301-202-4812
   Email: info@healthyschoolfoodmd.org
   Website: http://www.realfoodforkidsmontgomery.org/index.html

8. **CROSSROADS COMMUNITY FOOD NETWORK**
   Crossroads works to bolster the local food system through programs that support and unite those who grow, make, and eat fresh, healthy food.
   Address: 6930 Carroll Avenue, Suite 426, Takoma Park, MD 20912
   Website: https://www.crossroadscommunityfoodnetwork.org/

9. **CITY OF GAITHERSBURG – BENJAMIN GAITHER CENTER**
   Offers a variety of classes, trips, special events, and activities, for those 55 years of age and older.
   Address: 80A Bureau Drive, Gaithersburg, MD 20878
   Phone: 301-258-6380
   Email: benjamingaithercenter@gaithersburgmd.gov
   Website: https://www.gaithersburgmd.gov/about-us/city-facilities/benjamin-gaither-center

10. **FOOD & FRIENDS**
    Address: 219 Riggs Road NE, Washington, DC 20011
    Phone: 202-269-2277
    Email: info@foodandfriends.org
    Website: https://foodandfriends.org/

Section IV: Findings

Part B: Secondary Data

Chapter 8: Social Determinants of Health (SDOH)

Social Determinants of Health

KEY FINDINGS – PART I

Disparities & Indicators

Education

- In PGC and MC, **Hispanic** high school students have the lowest **graduation rates** among all racial/ethnic groups; **Asian** students have the highest rates
- In both counties, **NH – Black/AA** and **Hispanic** students have the lowest **proficiency in math and English language arts** as compared to **Asian** students who have the highest rates overall
- Bachelor's degree or higher is lowest among **Hispanics** and **AI/AN** as compared to **Asian** and **White** individuals who have the highest rates among all racial/ethnic groups

Food Access

- There are 6.7% more **fast food restaurants** and 2.2% less **grocery stores** in PGC as compared to MC
- In PGC, the **food insecurity** rate is more than 2X greater than MC; neither county meets the HP 2020 target of 6.0%
- In MC, **NH – Black/AA** and **Hispanic** households are becoming more food secure as **NH – White** households are becoming less food secure

Trend Over Time

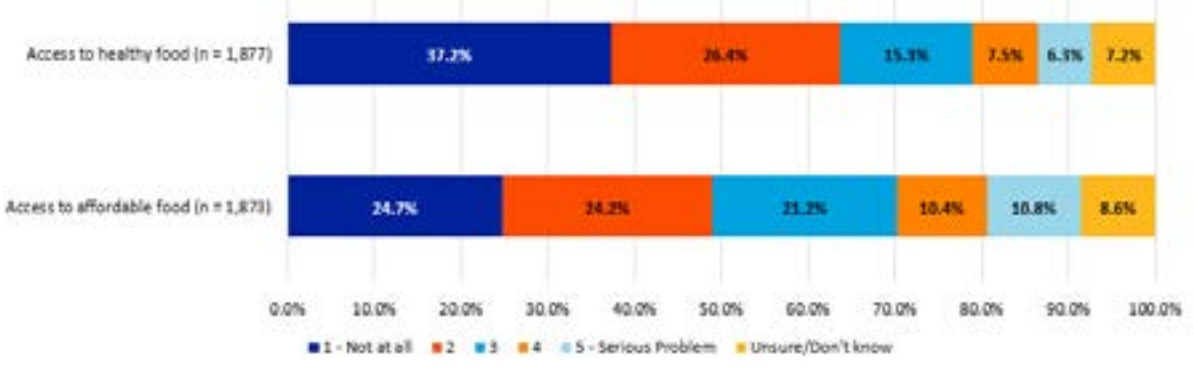
- Food insecurity rates had a 1.5% decrease in PGC from 2013 to 2017
- PGC had a 6.1% increase in high school graduation rates from 2014 – 2017
- From FY2013 – FY2018, households receiving SNAP decreased by 11.1% in MC and 20.4% in PGC

- MC has a stable trend from 2014 – 2017 for high school graduation with an average of 89.3%
- From 2014 – 2017, students entering kindergarten ready to learn remained stable for both MC (avg. 48.3%) and PGC (avg. 35.0%)

- From 2017 - 2018, the PGC high school graduation rate decreased by 4.2%

Community Perception

REHAB CBSA: Thinking about your local community/neighborhood, on a scale of 1-5, how much of a problem are each of the following:



Social Determinants of Health

KEY FINDINGS – PART II

Disparities & Indicators	Trend Over Time
Housing • MC has a higher homeless population than PGC • In MC, the largest number of people who are homeless are individuals; in PGC, it's persons in families • MC's largest subpopulation of **homeless individuals** are **domestic violence victims** with **chronic health problems;** PGC's largest subpopulations are individuals with chronic health problems and those with physical disabilities • 17% of MC and 20% of PGC households have **severe housing problems**	• Adults who have had a routine check-up increased in PGC • Individuals experiencing homelessness in MC and PGC saw a decreasing trend • Increasing trend for adults who are unable to afford to see a doctor in PGC

Community Perception

Navigating the Healthcare System
"When it comes to behavioral health calls, particularly for those with alcohol or substance abuse struggles, they are seeing the same people over and over. Unfortunately, we often don't have anywhere else to take them other than the ER."[1]

Lack of quality providers in their area
"It's too easy to cross counties and go elsewhere because of the perception that there's better care elsewhere."[4]

Language Barriers
"Even though resources are out there, the problem remains that people lack information due to factors like language barriers."[2]

Housing
"There should be more affordable housing options which should include both rentals and homeownership."[5]

"The extremely high cost of living in this area greatly reduces the availability of affordable housing for low/moderate income families and seniors."[6]

Cost of Care
"Unfortunately, many top ranked doctors and pediatricians do not take Medicaid."[3]

[1,2,4] Adventist HealthCare Community Health Needs Assessment. (2019). Primary Data Collection – Key Informant Interview.
[3,5,6] Adventist HealthCare Community Health Needs Assessment. (2019). Primary Data Collection – Community Survey.

Social Determinants of Health

KEY FINDINGS – PART III

Disparities & Indicators

Transportation

- **Pedestrian injury rate** on public roads is increasing and higher than HP 2020 target (20)
- Death rate due to motor vehicle traffic collisions in MC is highest for **Hispanics**

Discrimination

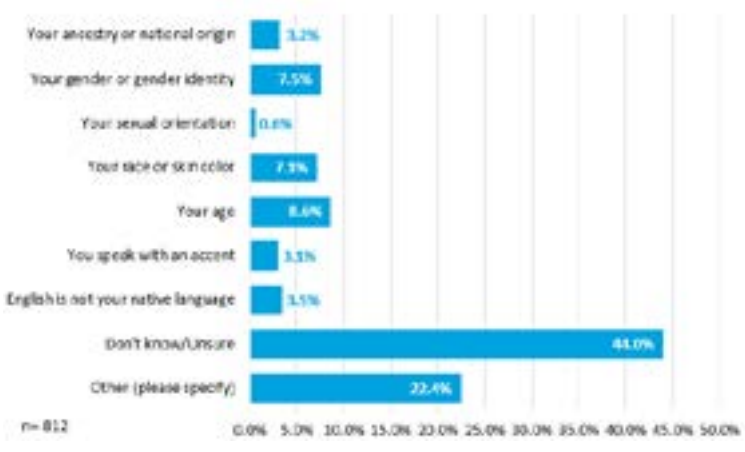
- For survey respondents that indicated "Other" as a reason for being treated unfairly/discriminated against, 51.9% of people in the WOMC CBSA stated that either **weight** or **insurance type/status** was the main reason for being treated unfairly/discriminated against when receiving medical care

Trend Over Time

- From 2013 – 2017 the pedestrian injury rate increased in PGC and MC

Community Perception

REHAB CBSA: "Which of these do you think is the main reason why you have been treated unfairly while getting medical care?"[3]



Transportation

"Safer pedestrian walkways, raised crosswalks, bike lanes."[1]

"More care free zone for pedestrians."[3]

Transportation was mentioned 57x as a gap/weakness. Affordability was mentioned as a barrier, as were additional mobility challenges for the elderly and those with physical disabilities.

[3] Adventist HealthCare. (2019). Community Health Needs Assessment – Community Survey.

8.1 Educational Attainment

In 2018, 88.4 percent of Montgomery County students graduated high school within 4 years. The 4-year graduation rate for the county is higher than that of the state (87.1 percent) (Figure 1).

- Over time, the 4-year high school graduation rate of Prince George's County students has been lower than both the state average and Montgomery County's average (Figure 1).
- From 2017 – 2018, the graduation rate in PGC decreased by 4.2 percent (Figure 1)

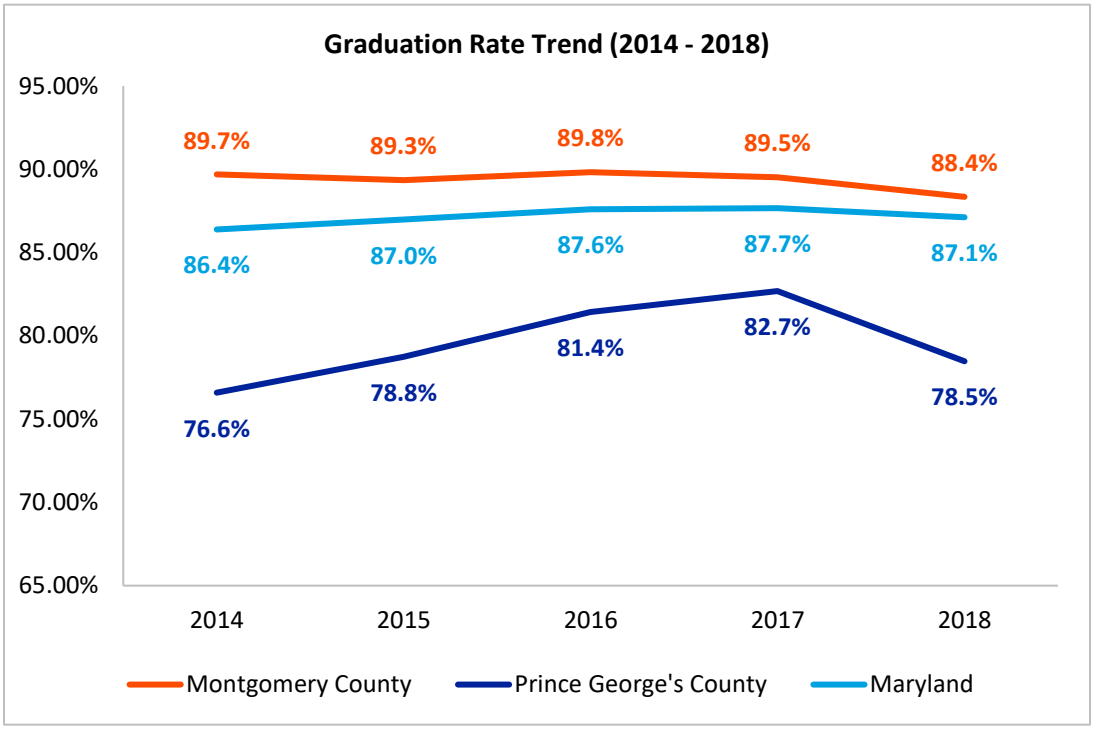


Figure 1. Graduation Rate Trend, 2014 - 2018
(Source: Maryland Report Card, 2018)

- Asian and White students in Montgomery County have the highest graduation rates, at 97.3 and 96.0 percent respectively, while Hispanic students have the lowest rates at 78.5 percent (Figure 2).
- In Prince George's County, students who identify as Asian and two or more races have the highest graduation rates, while Hispanic students have the lowest graduation rates (Figure 2).
- Similar patterns can be found when looking at the graduation rates across the state of Maryland (Figure 2).

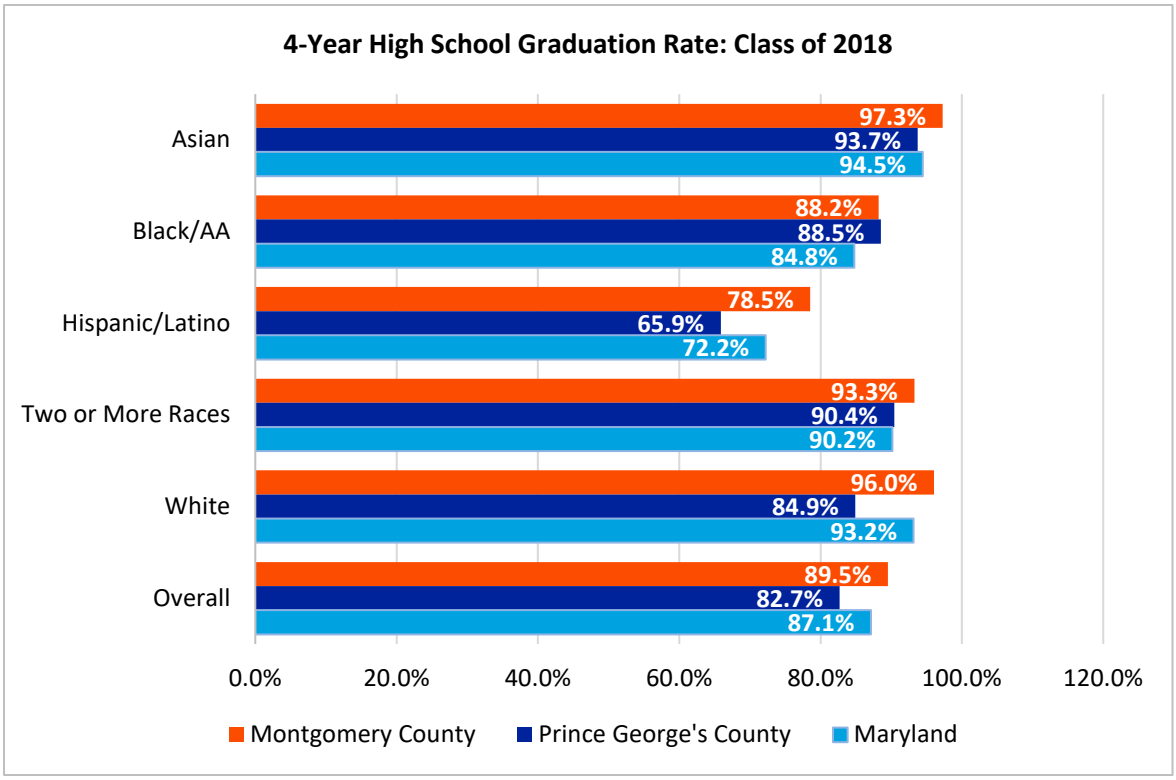


Figure 2. 4-Year High School Graduation Rate, 2018
(Source: Maryland Report Card, 2018)

- The overall percentage of adults in Montgomery County with a bachelor's degree or higher is 58.3 percent (Figure 3).
- However, when stratified by race and ethnicity, the percentage goes as high as 71.3 among White students and as low as 25.1 among Hispanic students (Figure 3).
- In Prince George's County, the overall percentage of adults with a bachelor's degree is much lower at only 31.9 percent (Figure 3).
- When stratified by race and ethnicity, there are large disparities in Prince George's County, with 56.4 percent of Asian students obtaining a bachelor's degree compared to 10.3 percent of Hispanic students (Figure 3).
- A similar pattern can be found when looking at the state of Maryland (Figure 3).

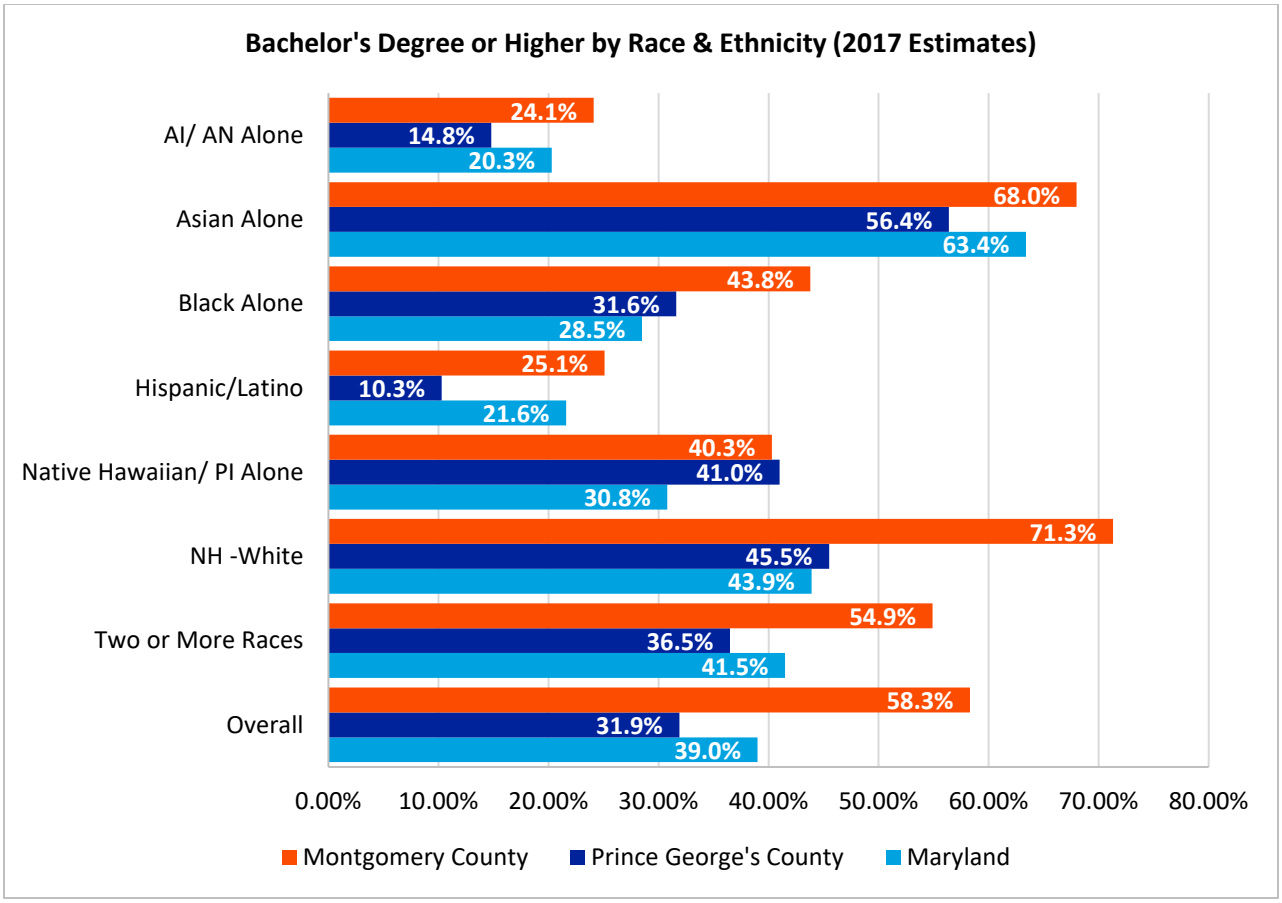


Figure 3. Bachelor's Degree or Higher by Race & Ethnicity, 2017
(Source: U.S. Census Bureau-American Community Survey 5-Year Estimates, 2017)

Reading & Math Proficiency

- 71.6 percent of Asian and 66.7 percent of White high school students are proficient in English language arts compared to 33.3 percent of Hispanic students and 35.6 percent of Black students in Montgomery County (Figure 4).
- In Prince George's County, there are disparities in English language arts proficiency among high school students of different races and ethnicities, with Asian students testing highest at 69.9 percent and Hispanic students testing the lowest at 33.8 percent (Figure 4).

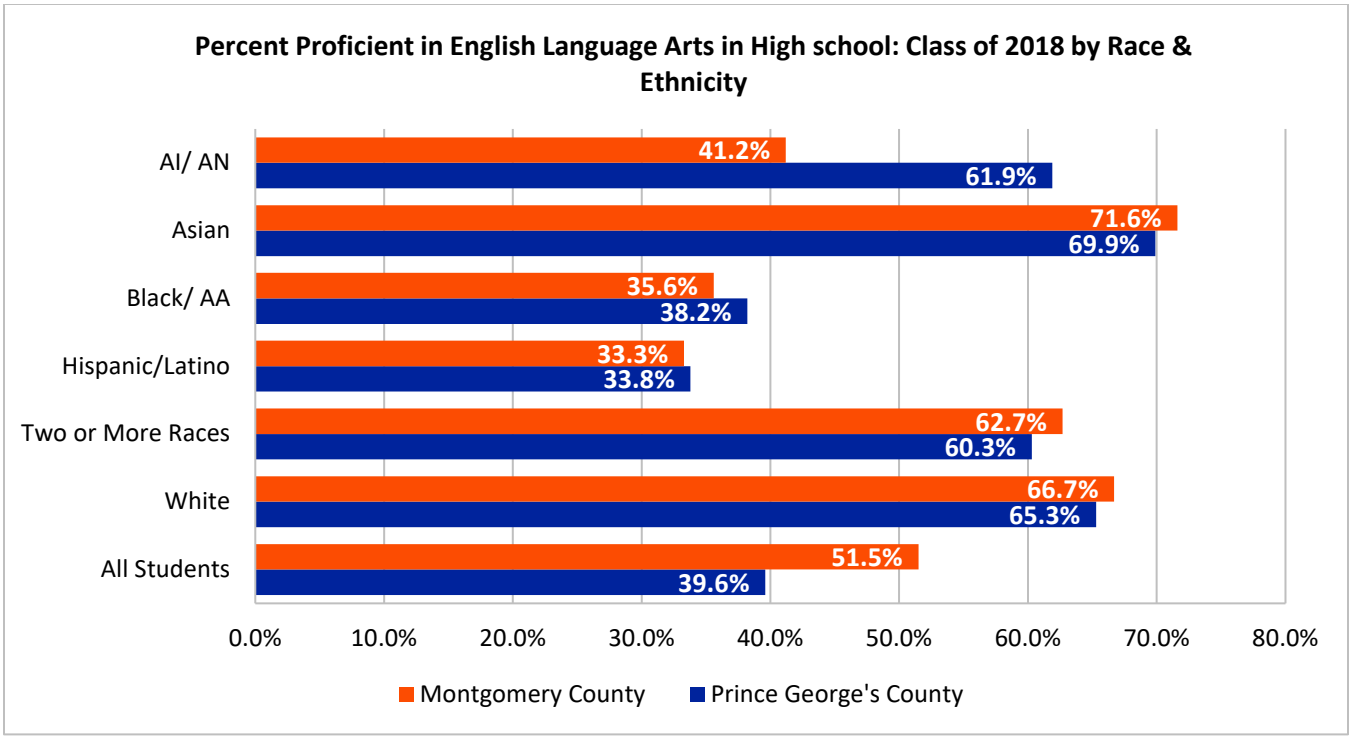


Figure 4. High School Students Proficiency in English Language Arts by Race & Ethnicity, 2018
(Source: Maryland Report Card, 2018)

- In Montgomery County, 82.0 percent of Asian and 76.4 percent of White high school students are proficient in math compared to only 38.9 percent of Black and 29.2 percent of Hispanic high school students (Figure 5).
- In Prince George's County, 53.0 percent of Asian and 49.4 percent of White high school students are proficient in math compared to 13.1 percent of Hispanic and 20.6 percent of Black high school students (Figure 5).

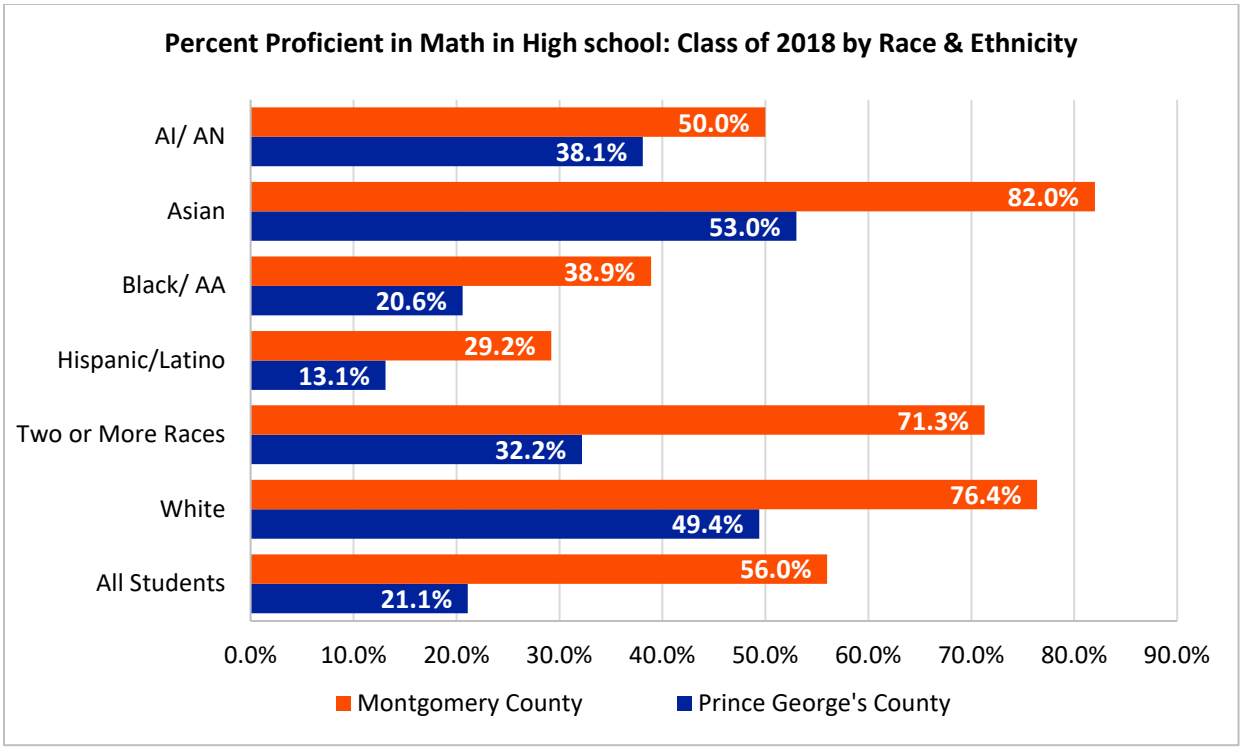


Figure 5. High School Students Proficiency in Math by Race & Ethnicity, 2018
(Source: Maryland Report Card, 2018)

Readiness for Kindergarten

- The percentage of children who enter kindergarten ready to learn in Montgomery County has remained constant and is higher than the state overall (Figure 6).
- The percentage of children who enter kindergarten ready to learn in Prince George's County increased in 2015 to 38.0 percent but then decreased back down to 34.0 percent. The percentage is lower than the state overall (Figure 6).

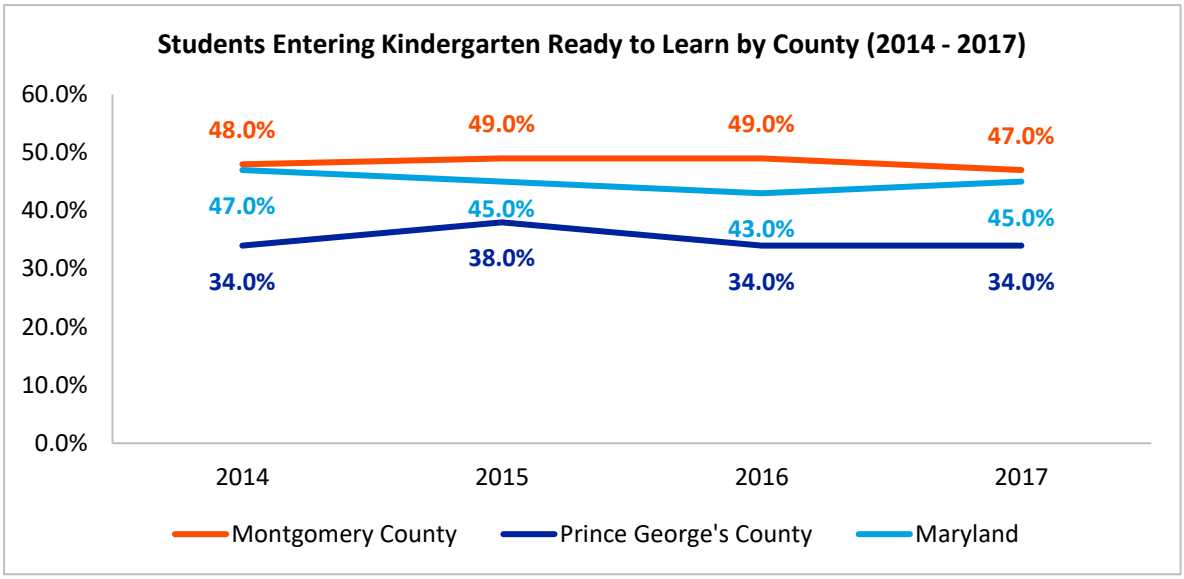


Figure 6. Percentage of Students Entering Kindergarten Ready to Learn, 2014-2017
(Source: SHIP, 2017)

- Hispanic children were among those least likely to be prepared for kindergarten (24.0 percent). White (67.0 percent) and Asian (63.0 percent) children were among those most prepared to enter Kindergarten in Montgomery County (Figure 7).
- Hispanic children were the least likely to be prepared for kindergarten at 14.0 percent, while Asian and White children were among those most prepared to enter Kindergarten in Prince George's County at 50.0 percent and 53.0 percent, respectively (Figure 7).

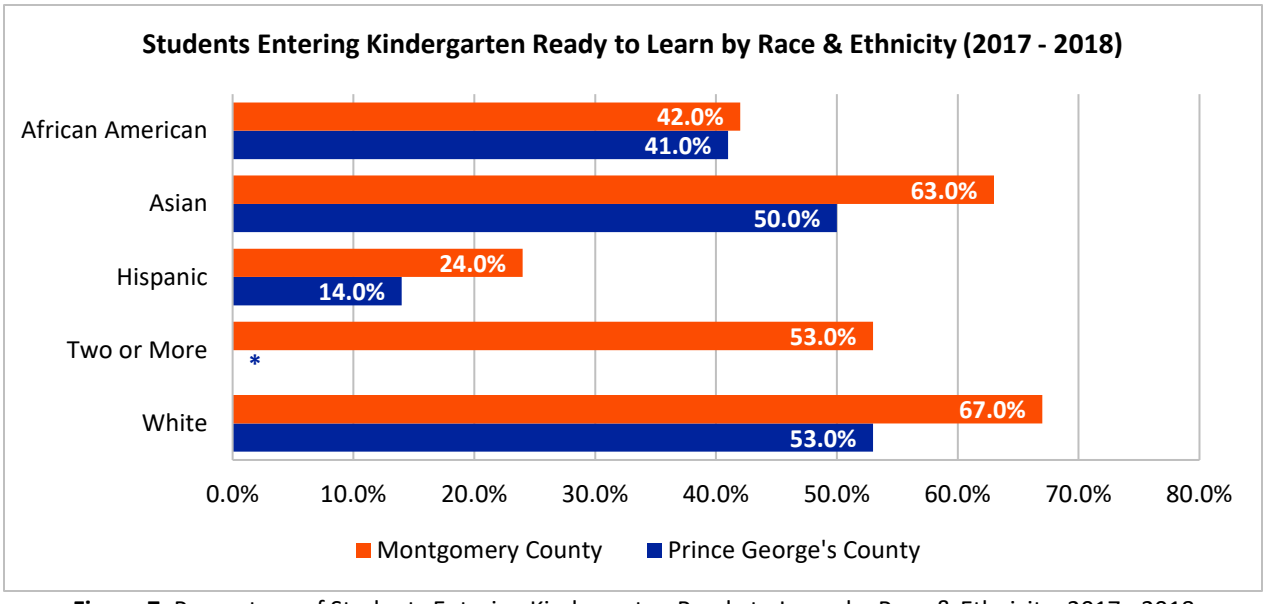


Figure 7. Percentage of Students Entering Kindergarten Ready to Learn by Race & Ethnicity, 2017 - 2018
*Data not available/not applicable
(Source: Kindergarten Readiness Assessment Report, 2018)

Community Resources

Locally, community groups work to reduce the influence of educational disparities by offering supplemental education programs for all ages. Services include, but are not limited to, the following:

1. **MONTGOMERY COALITION FOR ADULT ENGLISH LITERACY**
   The Montgomery Coalition for Adult English Literacy strengthens the countywide adult English literacy network to support a thriving community and effective workforce.
   Address: 9210 Corporate Blvd #480, Rockville, MD 20850
   Phone: 301-881-1338
   Email: communications@mcael.org
   Website: https://www.mcael.org/

2. **LEADERSHIP MONTGOMERY**
   To educate, inspire, convene and connect leaders to advance Montgomery County
   Address: 6010 Executive Boulevard Suite 200, Rockville, MD 20852
   Phone: 301-881-3333
   Website: https://leadershipmontgomerymd.org/

3. **IDENTITY- ACADEMIC SUPPORT**
   Address (Main Office)**:** 414 East Diamond Ave. Gaithersburg, MD 20877
   Phone: 301-963-5900
   Email: info@identity-youth.org
   Website: https://identity-youth.org/what-we-do/academic-support/

4. **GENERATION HOPE**
   Help D.C. area teen parents become college graduates and help their children enter kindergarten at higher levels of school readiness.
   Address: 415 Michigan Avenue NE, Suite 430, Washington, D.C. 20017
   Phone: 202-734-5838
   Email: info@supportgenerationhope.org
   Website: http://supportgenerationhope.org/

5. **FAMILY SERVICES**
   Address: 610 East Diamond Ave, Suite 100, Gaithersburg, MD 20877
   Phone: 301-840-2000
   Email: info@fs-inc.org
   Website: https://www.sheppardpratt.org/family-services-inc/

8.2 Food Access

Healthy Eating Behaviors

- More adults in Montgomery County consumed at least 1 or more fruit per day compared to Maryland and Prince George's County, where 36 percent had no daily fruit consumption (Figure 1).

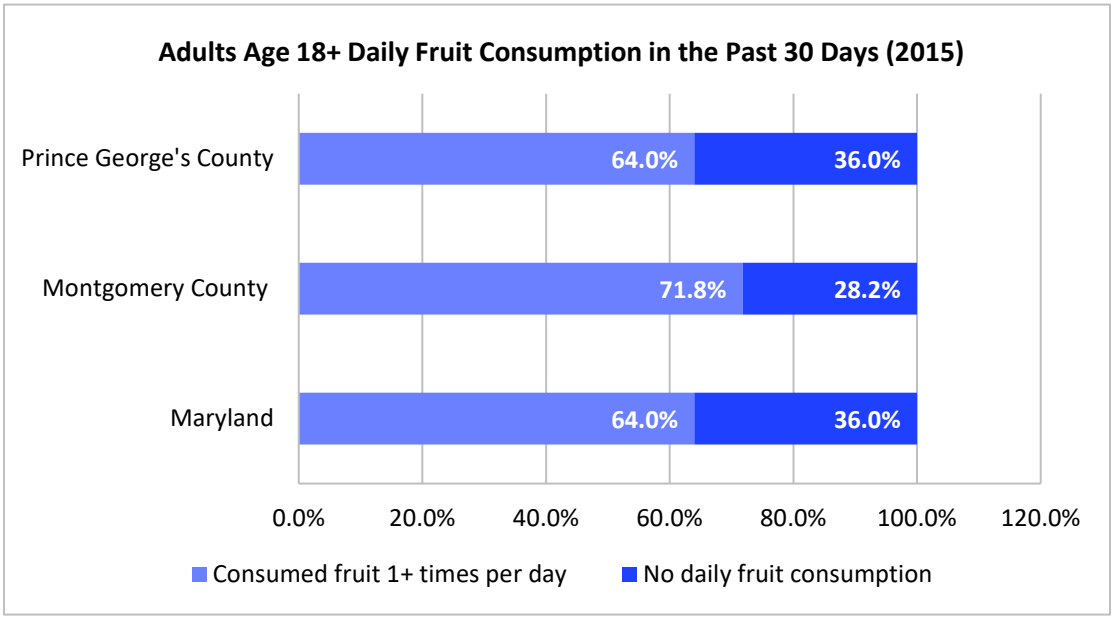


Figure 1. Percentage of Adults Age 18+ Daily Fruit Consumption in Montgomery County, Prince George's County, and Maryland, 2015
(Source: Maryland BRFSS, 2017)

- In Maryland and Prince George's County, over 20 percent of the adult population have no daily vegetable consumption compared to Montgomery County's 13.9 percent (Figure 2).

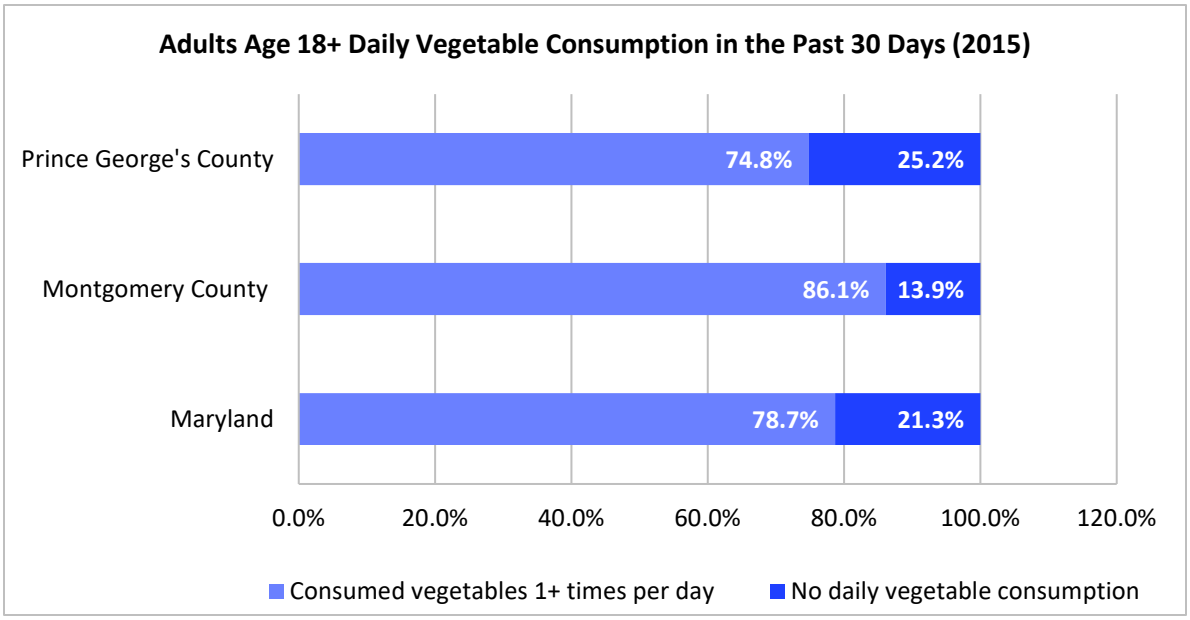


Figure 2. Percentage of Adults Age 18+ Daily Vegetable Consumption in Montgomery County, Prince George's County, and Maryland, 2015
(Source: Maryland BRFSS, 2017)

Food Environment

Food insecurity is defined by the USDA as a lack of access to enough food for a healthy life and limited or uncertain availability of adequately nutritious foods.[4]

- Over the past four years, the food insecurity rate for both counties and Maryland have fluctuated. Most recently in 2017, 6.1 percent of the Montgomery County population experienced food insecurity, compared to 10.7 percent of Maryland and 13.3 percent of Prince George's County's (Figure 3).
- Neither county or Maryland met the Healthy People 2020 target of 6.0 percent (Figure 3).

[4] Feeding America (2016). Food insecurity in the United States. *Feeding America*. Retrieved from http://map.feedingamerica.org/county/2014/overall

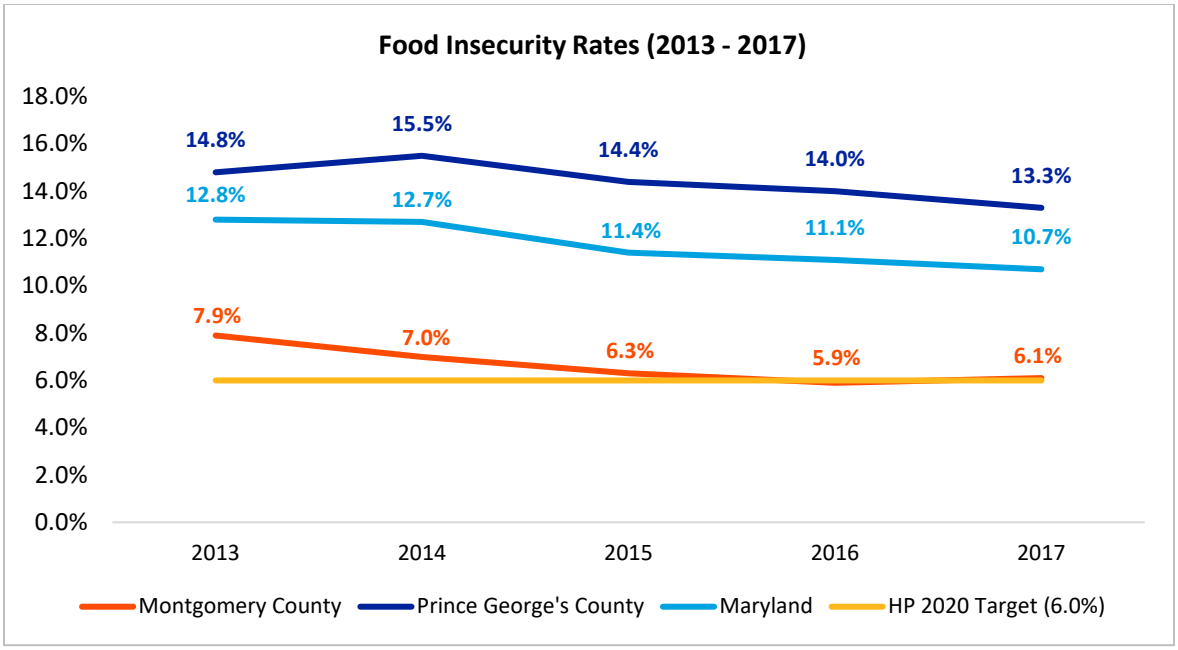


Figure 3. Food Insecurity Rates, 2013 - 2017
(Source: PGC Health Zone & Feeding America, 2017)

- Over time, in Montgomery County, non-Hispanic Black and Hispanic households are becoming more food secure while White households are becoming less food secure (Figure 4).

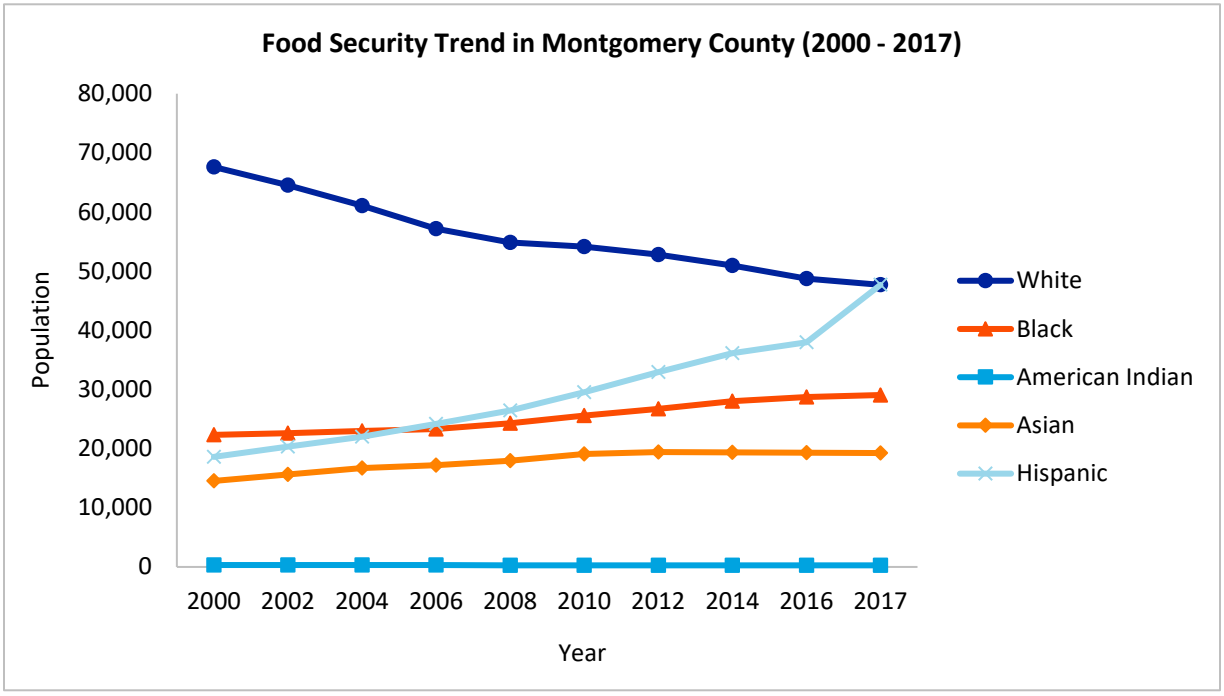


Figure 4. Food Security Trend in Montgomery County, 2000 – 2017
(Source: Montgomery County FoodStat, 2019)

- The child food insecurity rate is 1.2 percent higher in Prince George's County than in Montgomery County, however, both counties are lower than the overall average for the state (15.2 percent) (Figure 5).

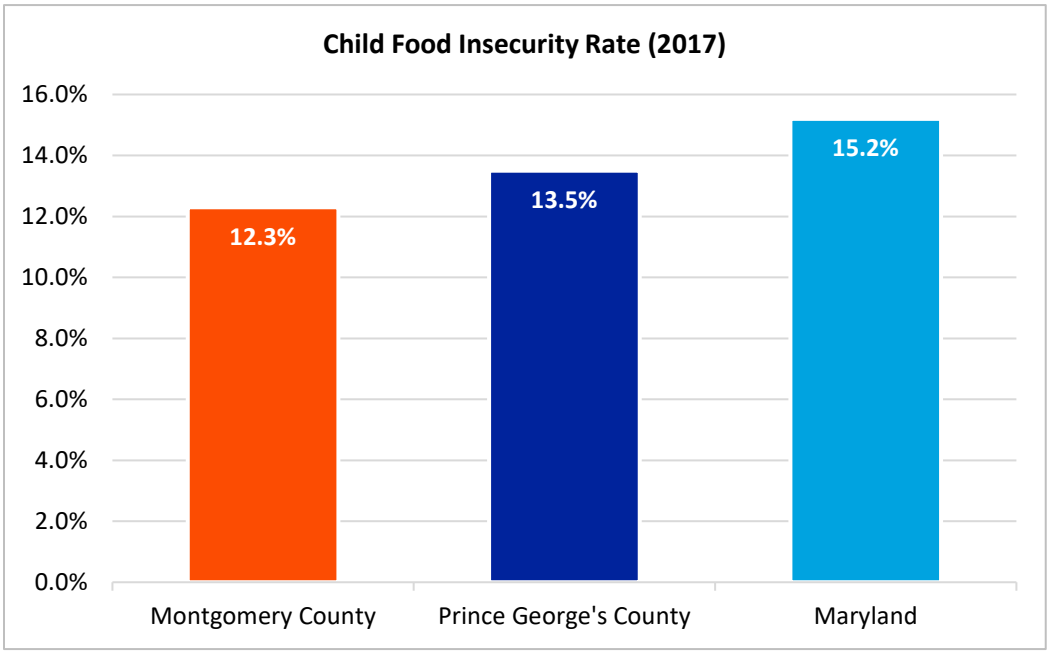


Figure 5. Child Food Insecurity Rate, 2017
(Source: Feeding America, 2019)

- When looking at food insecure populations who are ineligible for assistance (total population and population under age 18 that experience food insecurity at some point during the year but are ineligible for State or Federal nutrition assistance[5]), children in both Montgomery and Prince George's Counties and Maryland have the highest percentage; Montgomery county children have the highest percentage overall (Figure 6).

[5] Trinity Health. (2019). Trinity Data Hub Vital Signs Report – Montgomery and Prince George's County, Maryland. Retrieved from https://cares.page.link/HoXh

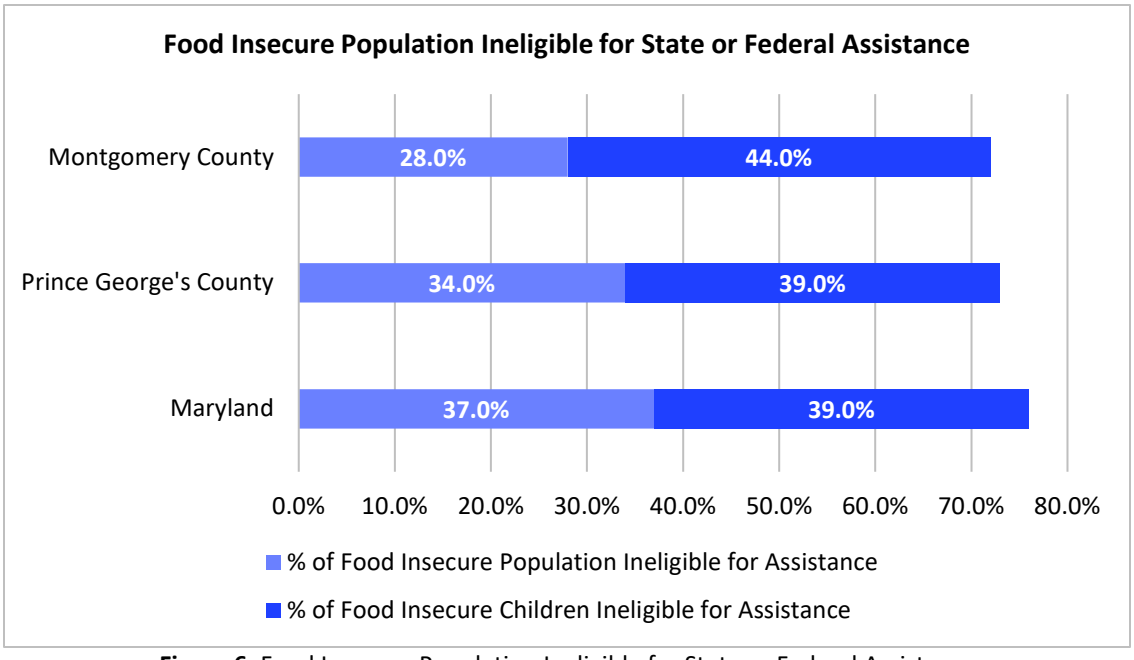


Figure 6. Food Insecure Population Ineligible for State or Federal Assistance
(Source: Trinity Data Hub, 2019)

- In Montgomery County, there are 20.7 grocery stores per 100,000 population, a rate very similar to that of Maryland (21 per 100,000 population) (Figure 7).
- In Prince George's County, there are only 18.5 grocery stores per 100,000 population (Figure 7).

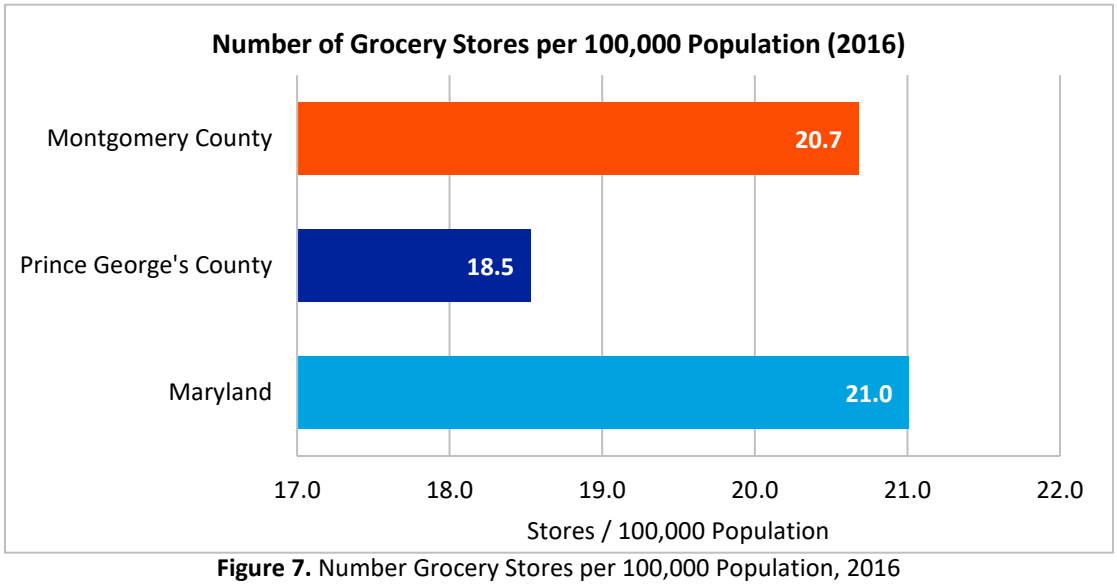


Figure 7. Number Grocery Stores per 100,000 Population, 2016
(Source: CARES Network, 2019)

- In Prince George's County, residents have access to fast food restaurants at a rate of 90.2 per 100,000 population, a rate higher than Montgomery County (83.5 establishments per 100,000 population), and slightly higher than Maryland (88.3 per 100,000 population) (Figure 8).

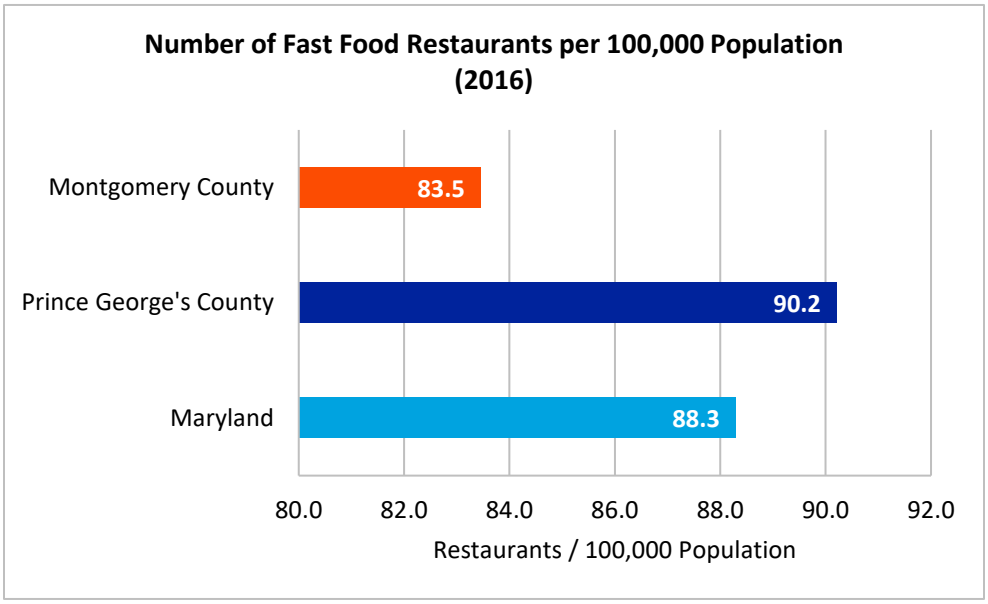


Figure 8. Number of Fast Food Restaurants per 100,000 Population, 2016
(Source: CARES Engagement Network, 2016)

- The number of operating farmers markets in Maryland are 111. Of those markets, there are 17 in Montgomery County and 11 in Prince George's County (Figure 9).

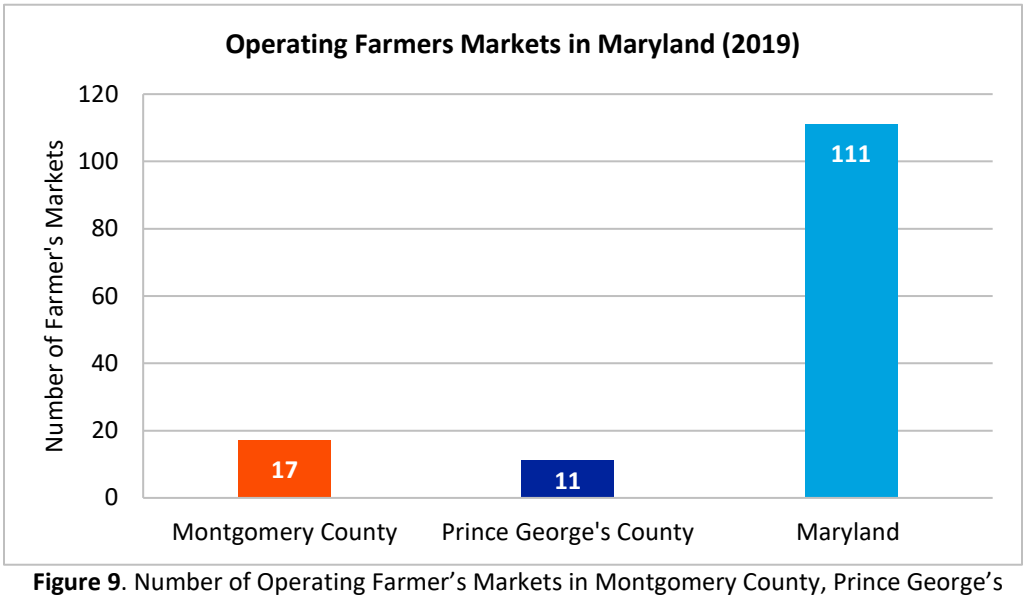
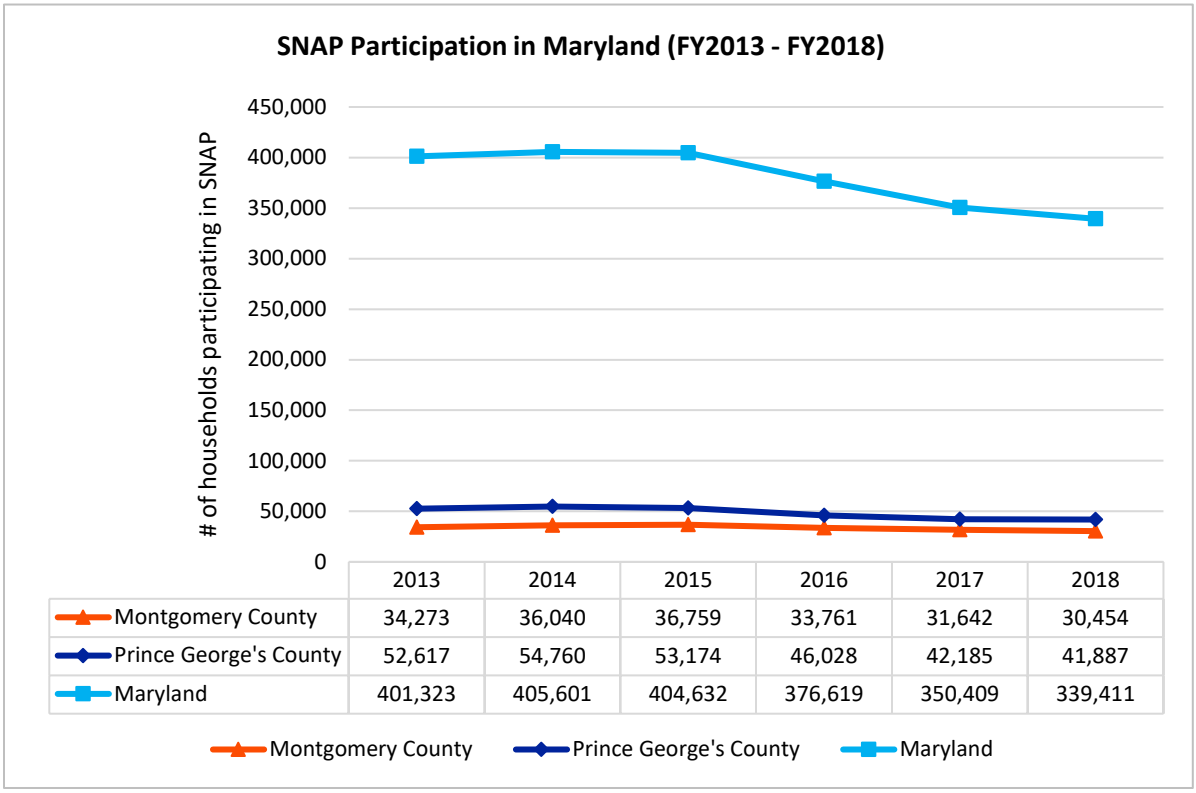


Figure 9. Number of Operating Farmer's Markets in Montgomery County, Prince George's County, and Maryland, 2019
(Source: Farmer's Market Directory, 2019)

- From FY2013 – FY2018, the number of households participating in SNAP has decreased by 11.1 percent in Montgomery County, 20.4 percent in Prince George's County, and 15.4 percent in Maryland (Figure 10).



	2013	2014	2015	2016	2017	2018
Montgomery County	34,273	36,040	36,759	33,761	31,642	30,454
Prince George's County	52,617	54,760	53,174	46,028	42,185	41,887
Maryland	401,323	405,601	404,632	376,619	350,409	339,411

Figure 10. SNAP Participation in Maryland, FY2013 – FY2018
(Source: The Annie E. Casey Foundation – Kids Count Data Center, 2019)

- From 2013 – 2017, Black/African-American individuals across both counties and Maryland have the highest percentage of SNAP recipients (Figure 11).
- In Prince George's County, Black/African-American individuals have the highest percentage of SNAP recipients with 67.6 percent or 63.8 percent more than the reference group (Asian population) (Figure 11).

- For Montgomery County, Black/African-American followed by White and Hispanic individuals have the next highest SNAP beneficiaries (Figure 11).

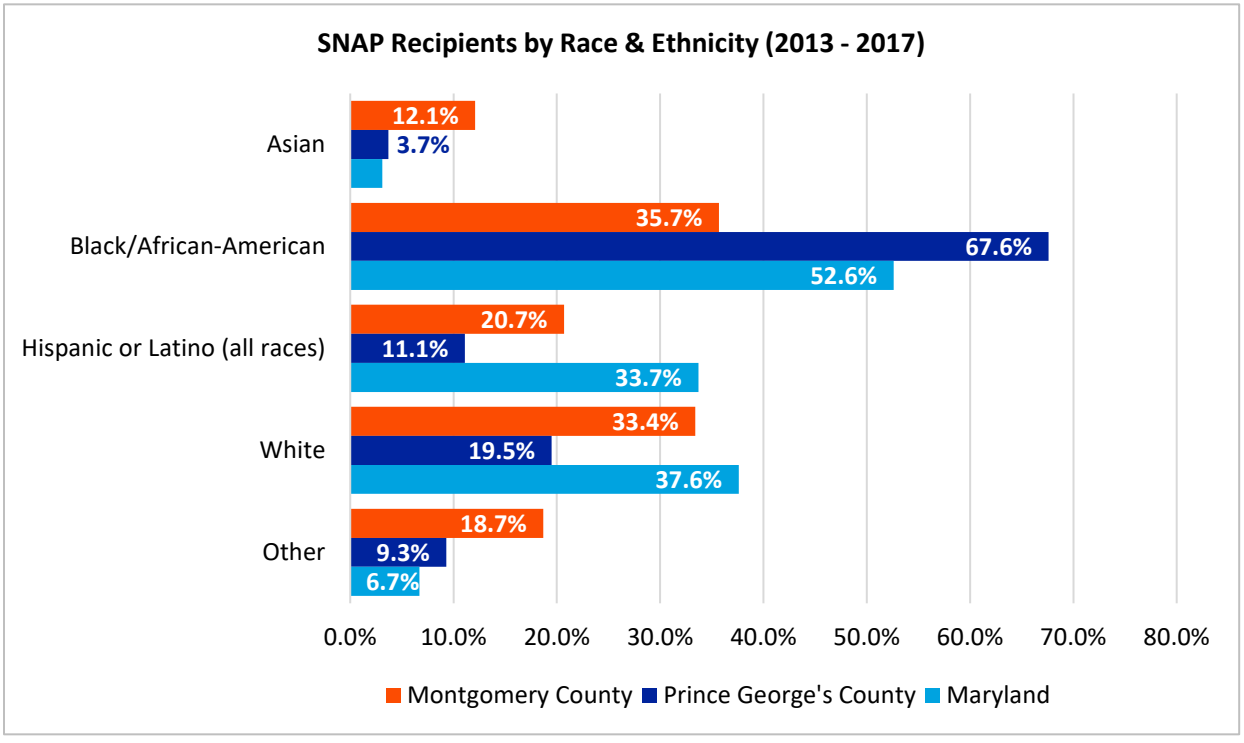


Figure 11. SNAP Recipients by Race & Ethnicity, 2013 – 2017
(Source: U.S. Census Bureau, American Community Survey 5-Year Estimates – Table S2201, 2013 – 2017)

- In Prince George's County, there are more SNAP authorized food stores in 2019 when compared to Montgomery County (Figure 12).

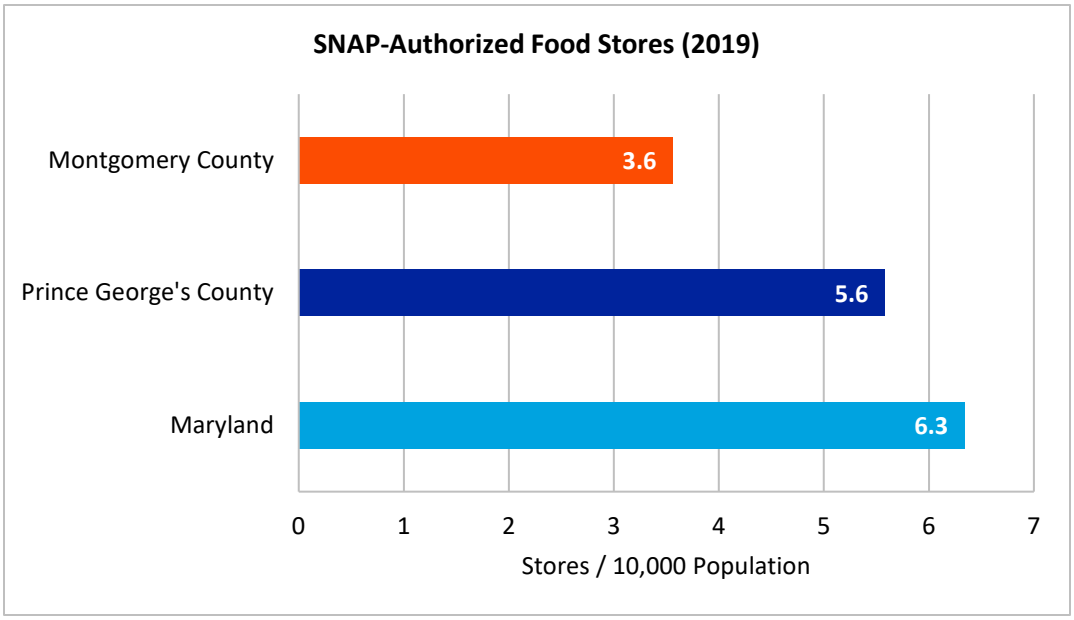


Figure 12. SNAP Authorized Food Stores, 2019
(Source: CARES Engagement Network, 2019)

- For students attending public school, the percentage of students who receive free and reduced school meals is highest and therefore worse among Prince George's County students as compared to Montgomery County and Maryland (Figure 13).
- Between both counties and the state, Montgomery County has the lowest percentage of students with free or reduced school meals since 2014 (Figure 13).

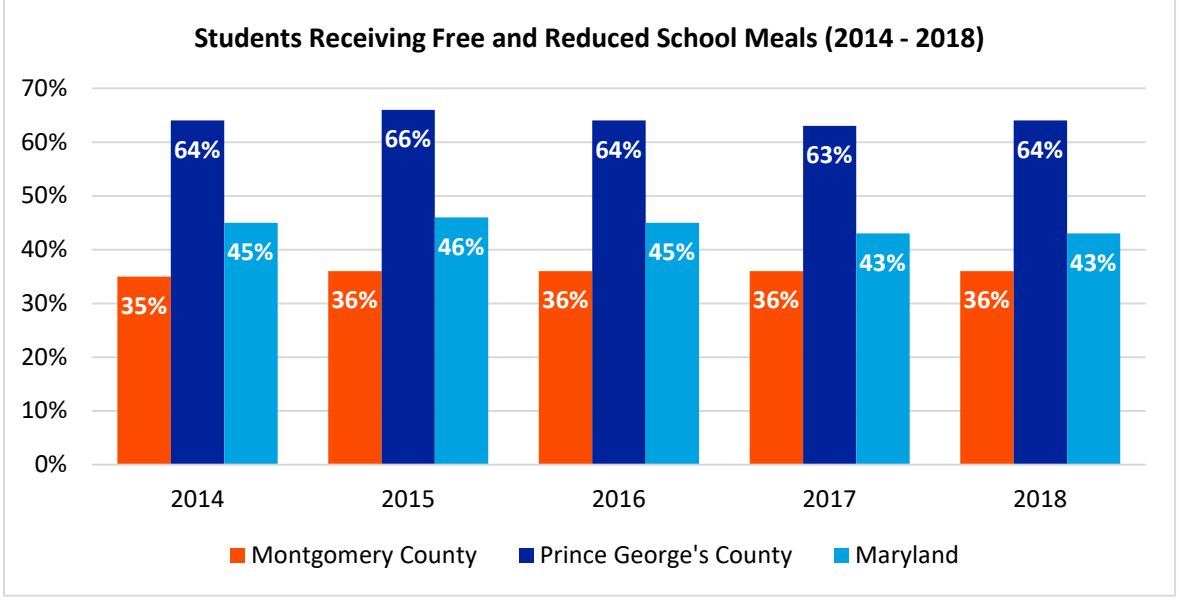


Figure 13. Students Receiving Free and Reduced School Meals, 2014 – 2018
(Source: The Annie E. Casey Foundation – Kids Count Data Center, 2019)

Community Resources

Local efforts aimed at improving access to healthy food include food banks, supplements to school lunch programs, and transportation solutions to help people access food resources. These organizations offer innovative approaches to providing food for people in need in Adventist HealthCare Rehabilitation Hospital Community Benefit Service Area. Services include, but are not limited to, the following:

1. **ONE ACRE FARM**
   Mission: One Acre Farm provides fresh, certified naturally grown vegetables to DC locals.
   Address (Farm Location)**:** 18608 Wasche Rd, Dickerson, MD 20842
   Phone: 301-503-3724
   Website:
   https://www.oneacrefarm.com/

2. **MANNA FOOD CENTER**
   Ending hunger in Montgomery County through food distribution, education and advocacy.
   Address: 12301 Old Columbia Pike, Silver Spring, MD 20904
   Phone: 301-424-1130
   Email: info@mannafood.org
   Website: https://www.mannafood.org/

3. **CROSSROADS COMMUNITY FOOD NETWORK**
   Crossroads works to bolster the local food system through programs that support and unite those who grow, make, and eat fresh, healthy food.
   Address: 6930 Carroll Avenue, Suite 426, Takoma Park, MD 20912
   Website:
   https://www.crossroadscommunityfoodnetwork.org/

4. **COMMUNITY SUPPORT SYSTEMS**
   Address: 14070 Brandywine Road, PO Box 206, Brandywine, MD 20613
   Phone: 301-372-1491
   Website:
   www.communitysupportsystems.org

5. **MONTGOMERY COUNTY FOOD COUNCIL**
   Cultivating a robust, sustainable, equitable local food system in Montgomery County, Maryland!
   Address: 4825 Cordell Avenue, Suite 204, Bethesda MD 20814
   Phone: 301-664-4010
   Email: info@mocofoodcouncil.org
   Website: https://mocofoodcouncil.org/

6. **PRINCE GEORGE'S COUNTY FOOD EQUITY COUNCIL**
   The Prince George's County Food Equity Council is a local food policy council that works to help residents grow, sell, and choose healthy food.
   Address: 1401 Mercantile Lane, Upper Marlboro, MD 20774
   Phone: 240-253-1036
   Website: www.pgcfec.org

7. **ADVENTIST COMMUNITY SERVICES OF GREATER WASHINGTON – ASSISTANCE**
   Address: 501 Sligo Avenue, Silver Spring, Maryland 20910
   Phone: 301-585-6557
   Website: https://www.acsgw.org/assistance.html

8. **PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS – FOOD AND NUTRITION SERVICES**
   Leading the country in the nutritional quality, content, and integrity of school meals.
   Address: 6311 Randolph Road, Suitland, MD 20746
   Phone: 301-952 – 6580
   Website: https://www.pgcps.org/foodandnutrition/

9. **FOOD & FRIENDS**
   Address: 219 Riggs Road NE, Washington, DC 20011
   Phone: 202-269-2277
   Email: info@foodandfriends.org
   Website: https://foodandfriends.org/

10. **SHEPHERD'S TABLE**
    Address: 8106 Georgia Ave, Silver Spring, MD 20910
    Phone: 301-585-6463
    Website: https://shepherdstable.org/

11. **CAPITAL AREA FOOD BANK**
    The mission of the Capital Area Food Bank is to create access to good, healthy food in every community.
    Address: 4900 Puerto Rico Ave NE, Washington, DC 20017
    Phone: 202-644-9800
    Website: https://www.capitalareafoodbank.org/

8.3 Housing

Access to safe, affordable, and quality housing is one of the most basic and influential social determinants of health. Housing quality refers to "the physical condition of a person's home as well as the quality of the social and physical environment in which the home is located."[6] Housing quality is affected by factors such as air quality, home safety, and the presence of mold, asbestos, or lead. Various studies have shown that poor-quality housing is associated with poorer health outcomes. [7]

- When looking at race and ethnicity on a national level, White individuals have a higher rate of experiencing moderate housing problems when compared to the other subpopulations (Figure 1).

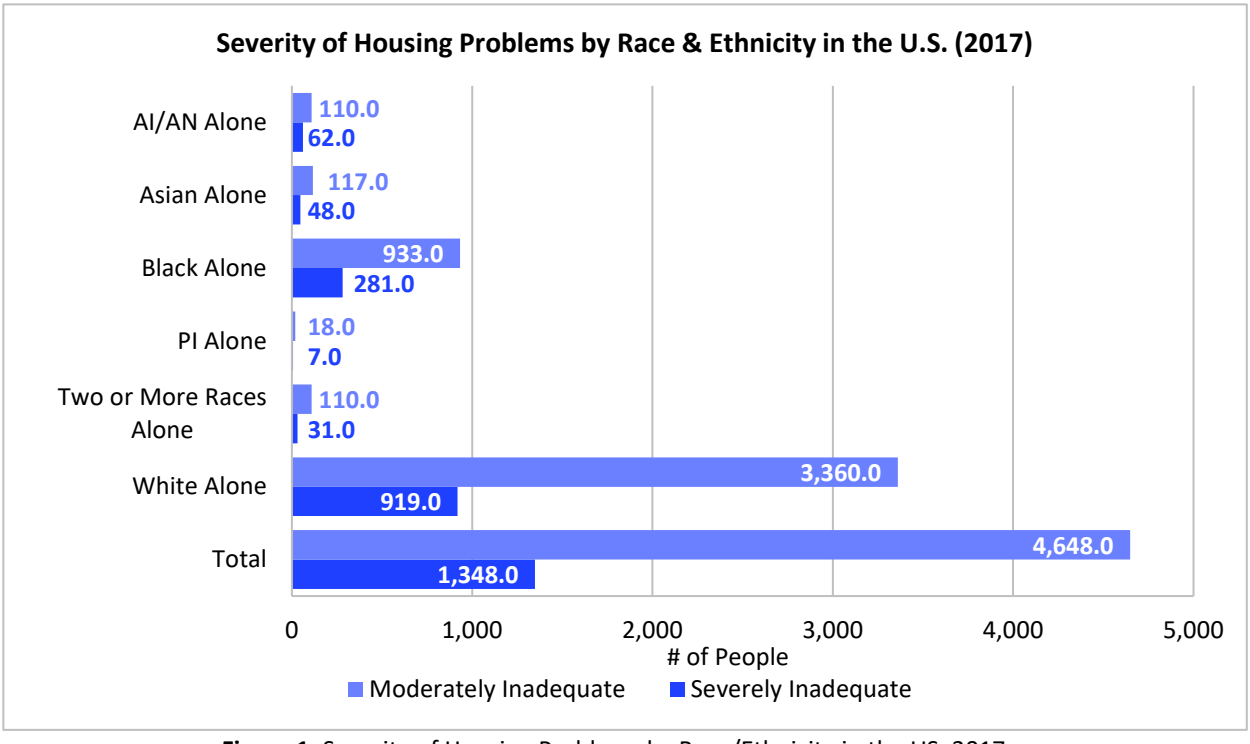


Figure 1. Severity of Housing Problems by Race/Ethnicity in the US, 2017
Note: Physical problems include plumbing, heating, electrical, and upkeep
(Source: U.S. Census Bureau, American Housing Survey, 2017 ACS 5-Year Estimates)

[6] Office of Disease Prevention and Health Promotion. (2019). Quality of Housing – Healthy People 2020. Retrieved from: https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/quality-of-housing

- In both Montgomery and Prince George's County, renters spending 30 percent or more on household income was 51.2 and 49.0 percent, respectively (Tables 1 & 2).

MONTGOMERY COUNTY HOUSING STATISTICS	
Renters spending 30 percent or more of household income on rent (2017)	51.20%
Vacant Housing Units (2017)	4.50%
Housing units in multi-unit structures (2016)	34.20%
Housing units (2018)	390,664
Owner-Occupied Housing Unit Rate (2013 - 2017)	65.60%
Median value of owner-occupied housing units (2013 - 2017)	$467,500
Households (2013-2017)	369,242
Persons per household (2013 - 2017)	2.79

Table 1. Montgomery County Housing Statistics, 2017
(Source: County Stat, Census Quick Fact, & Montgomery County Trends, 2019)

PRINCE GEORGE'S COUNTY HOUSING STATISTICS	
Renters spending 30 percent or more of household income on rent (2017)	49.00%
Vacant Housing Units (2017)	7.20%
Housing units in multi-unit structures	33.00%
Housing units (2018)	333,862
Owner-Occupied Housing Unit Rate (2013 - 2017)	61.80%
Median value of owner-occupied housing units (2013 - 2017)	$272,900
Households (2013 - 2017)	306,694
Persons per household (2013 - 2017)	2.89

Table 2. Prince George's County Housing Statistics, 2017
(Source: PGC Housing Opportunity, & Census Quick Facts, 2019)

- Lead exposure has various negative health effects, from causing high blood pressure and anemia to irreversibly damaging the nervous system.
- Lead exposure can have serious effects on children's health and behavior, even at low levels: slowed growth, lowered intelligence, learning disabilities, and behavior or attention problems.
- From 2015- 2017, elevated blood lead levels in children have been relatively stable in Montgomery County and Maryland, however it fluctuated in Prince George's County (Figure 2).

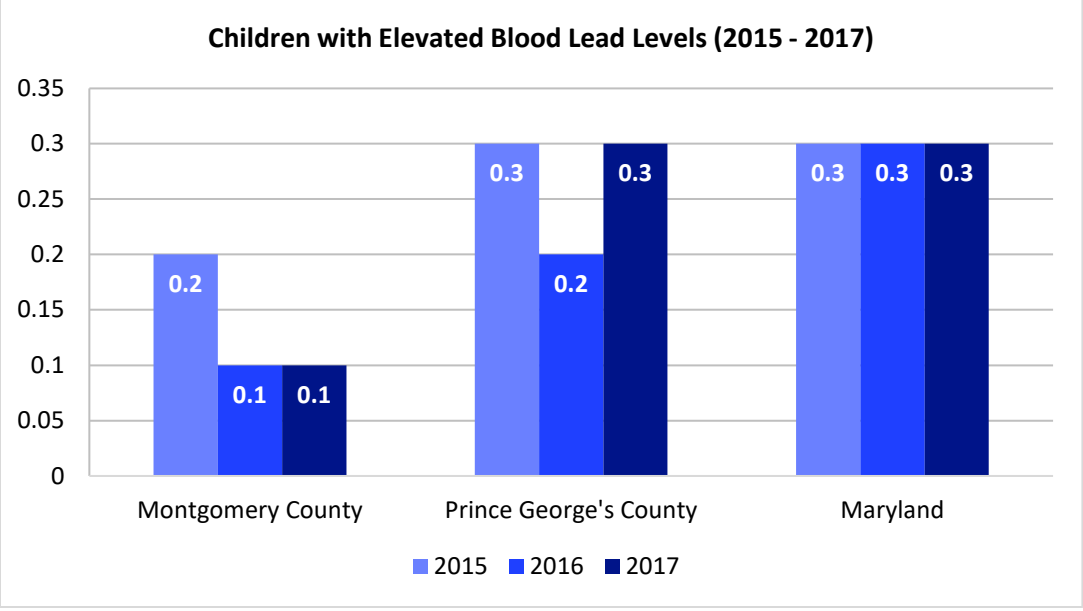


Figure 2. Children with Elevated Blood Levels (2015 - 2017)
(Source: Maryland Open Data Portal, 2019)

Spotlight on Homelessness

Perhaps the most extreme case of living situation having a negative impact on health is homelessness. Homelessness amplifies the threat of various health conditions and introduces new risks, such as exposure to extreme temperatures. People who experience homelessness have multidimensional health problems and often report unmet health needs, even if they have a usual source of care.

- From 2015 to 2016, there was a decrease in the homeless population in both Montgomery and Prince George's County by 11.0 percent and 13.0 percent, respectively (Figure 3).

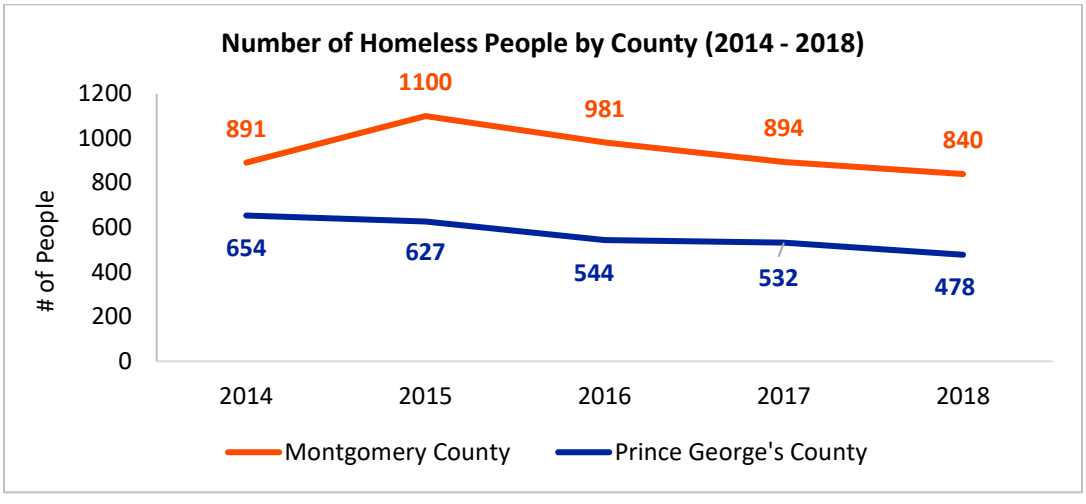


Figure 3. Number of Homeless People in Montgomery County and Prince George's County from 2014 to 2018
(Source: Homelessness in Metropolitan Washington, 2018)

- In Montgomery County, the homeless population included 180 children and 92 adults (Figure 4). Prince George's County's homeless population comprised of 105 family units, which included 118 adults, and 190 children (Figure 5).

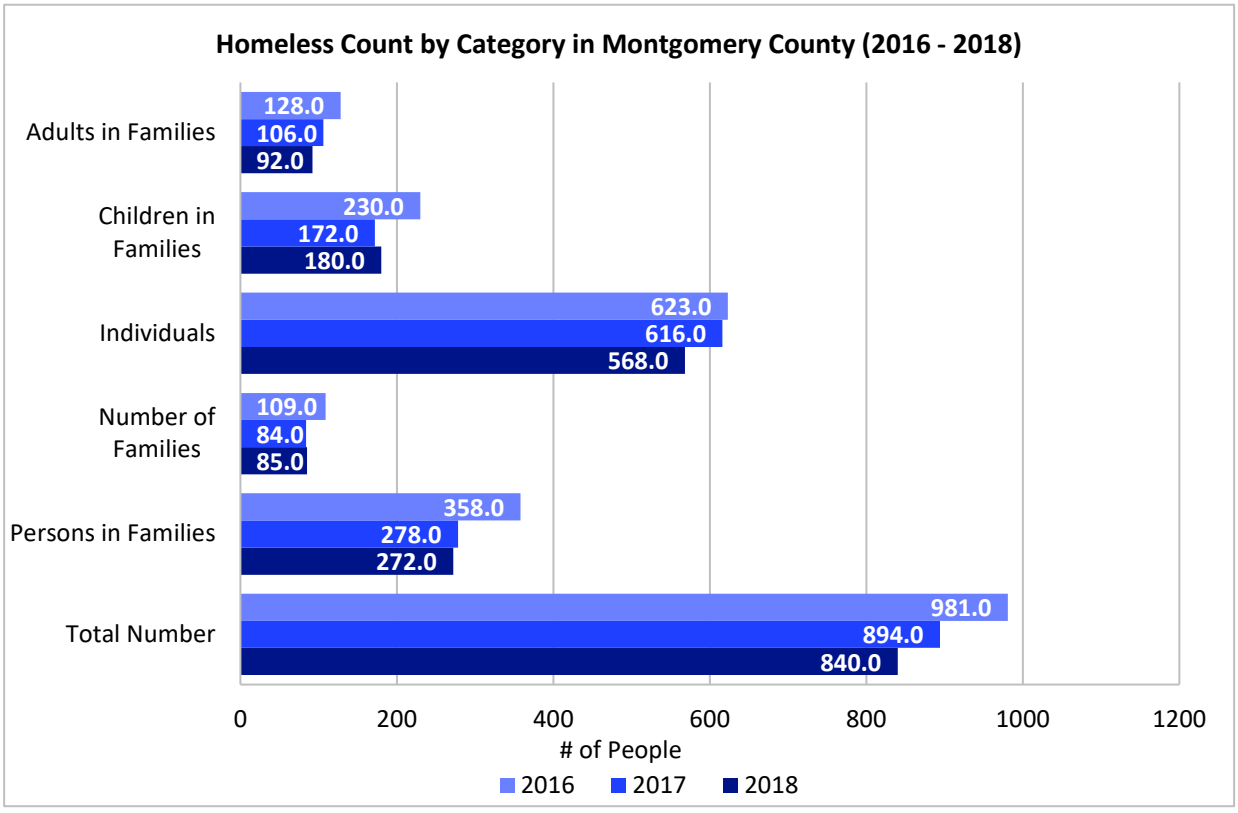


Figure 4. Homeless Populations in Montgomery County, 2016 - 2018
(Source: Homelessness in Metropolitan Washington, 2018)

- Prince George's County's homeless population in 2018 included 176 children and 97 adults (Figure 5).

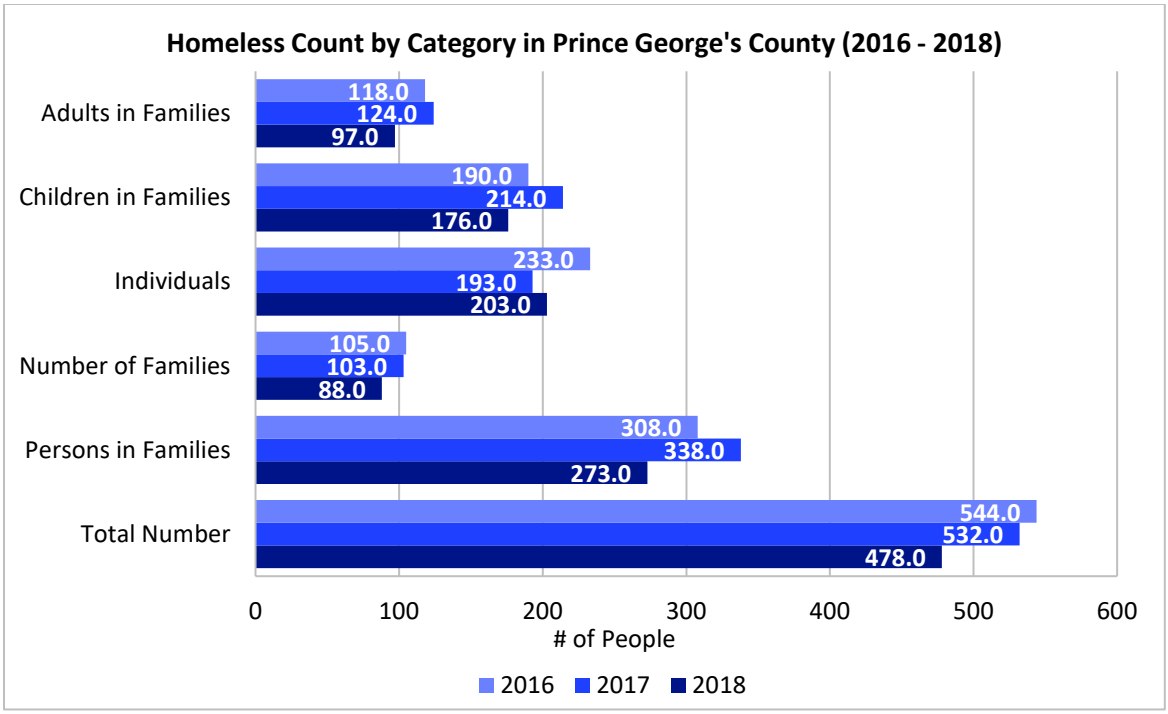


Figure 5. Homeless Populations in Prince George's County, 2016 - 2018
(Source: Homelessness in Metropolitan Washington, 2018)

- In Montgomery County, 124 individuals were chronically homeless, 18 were U.S. veterans, 147 were victims of domestic violence, 97 were suffering from co-occurring disorders (mental and substance abuse), 110 were physically disabled, and 63 were individuals with limited English proficiency. Similar issues were found among the Prince George's County homeless population (Figure 6).

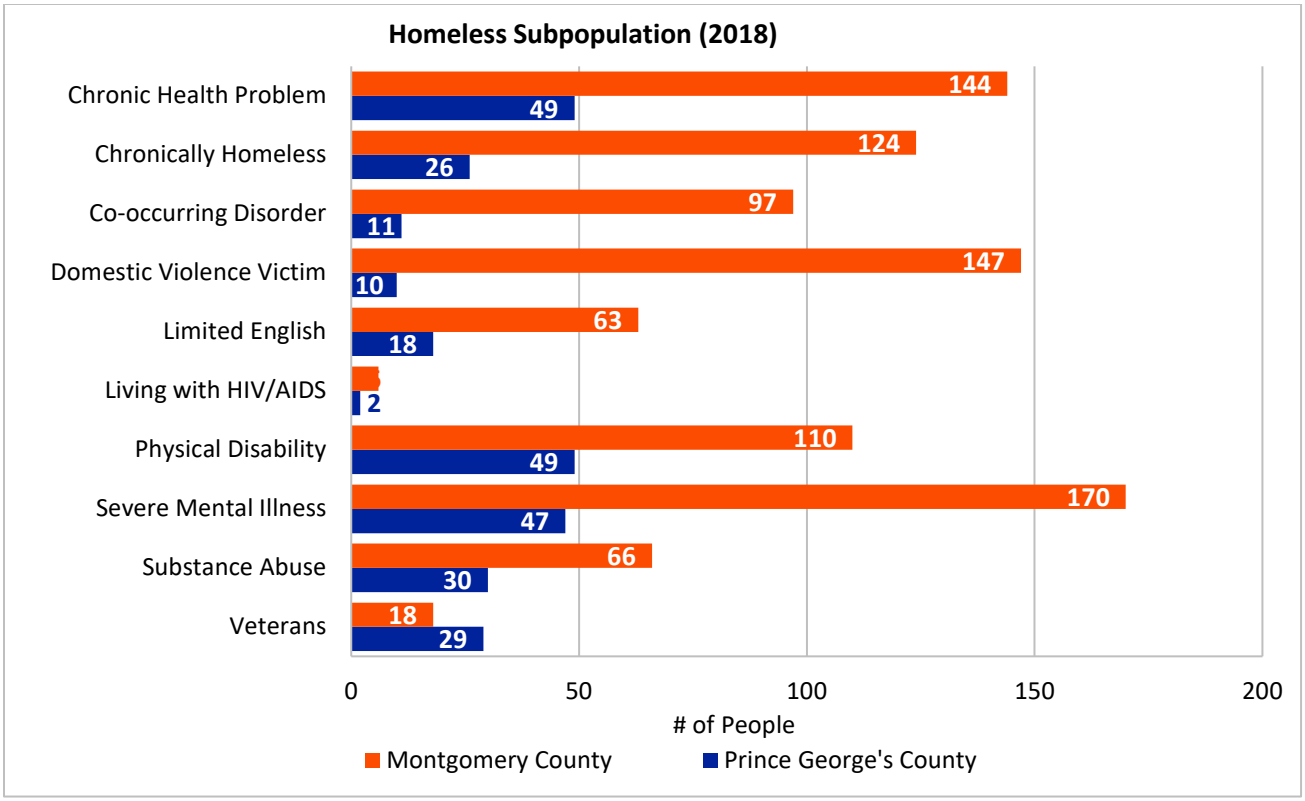


Figure 6. Homeless Subpopulations in Montgomery County and Prince George's County in 2018 (Source: Homelessness in Metropolitan Washington, 2018)

Community Resources

Several efforts in the Adventist HealthCare Rehabilitation Hospital Community Benefit Service Area aim to improve quality housing and the living situation for individuals experiencing homelessness. Each of the local programs listed below attempts to overcome challenges to people's housing and living situations. Services include, but are not limited to, the following:

1. **HEARTS & HOMES FOR YOUTH**
   Address: 3919 National Drive Suite 400, Burtonsville, MD 20866
   Phone: 301-589-8444
   Email: hhyinfo@heartsandhomes.org
   Website: https://heartsandhomes.org/

2. **REBUILDING TOGETHER MONTGOMERY COUNTY – HOMEOWNER SERVICES**
   Address: 18225-A Flower Hill Way, Gaithersburg, Maryland 20879
   Phone: 301-947-9400
   Email: info@rebuildingtogethermc.org
   Website: https://rebuildingtogethermc.org/homeonwer-services/

3. **INTERFAITH WORKS**
   Helps people lift themselves out of poverty.
   Address: 114 West Montgomery Ave., Rockville, MD 20850
   Phone: 301-762-8682
   Website: http://www.iworksmc.org/

4. **THE MONTGOMERY COUNTY COALITION FOR THE HOMELESS**
   End homelessness in Montgomery County by building a community.
   Address: 600 B East Gude Drive, Rockville, MD 20850
   Phone: 301-217-0314
   Email: mcch@mcch.net
   Website: https://mcch.net/

5. **EVERYMIND**
   Address: 1000 Twinbrook Pkwy, Rockville, MD 20851
   Phone: 301-424-0656
   Email: info@every-mind.org
   Website: www.every-mind.org

6. **HOUSING INITIATIVE PARTNERSHIP**
   Creates housing and economic security for low- and moderate-income households and provides services that improve the quality of life in the communities we serve.
   Address (Main Office)**:** 6525 Belcrest Road, Suite 555, Hyattsville, MD 20782
   Phone: 301-699-3835
   Email: info@hiphomes.org
   Website: http://hiphomes.org/wp/

7. **MONTGOMERY HOUSING PARTNERSHIP**
   We house people, empower families, and strengthen neighborhoods.

Address: 12200 Tech Road, Suite 250, Silver Spring, MD 20904-1983
Phone: 301-622-2400
Email: info@mhpartners.org
Website: https://www.mhpartners.org/

8. **HABITAT FOR HUMANITY METRO MARYLAND**
   Address: 8380 Colesville Road, Suite 700, Silver Spring, MD 20910
   Phone: 301-990-0014
   Website: https://www.habitatmm.org/

9. **PRINCE GEORGE'S COUNTY LEAD AND HEALTHY HOMES PROGRAM**
   Address: 9021 Basil Court, Suite 318 Largo, MD 20774
   Phone: 301-883-7662
   Website: https://www.princegeorgescountymd.gov/2108/Testing-Services

10. **CHILDHOOD LEAD POISONING PREVENTION – MONTGOMERY COUNTY**
    Address: Silver Spring Health Center 8630 Fenton Street, Silver Spring, MD 20910
    Phone: 240-777-3160
    Website: https://www.montgomerycountymd.gov/HHS-Program/Program.aspx?id=PHS/PHSChildLeadPos-p264.html

8.4 Transportation

- The majority of both Prince George's County (66.5 percent) and Montgomery County (65.3 percent) residents drive to work alone or utilize public transportation (Montgomery County: 15.5 percent, Prince George's County: 16.0 percent) (Figure 1).

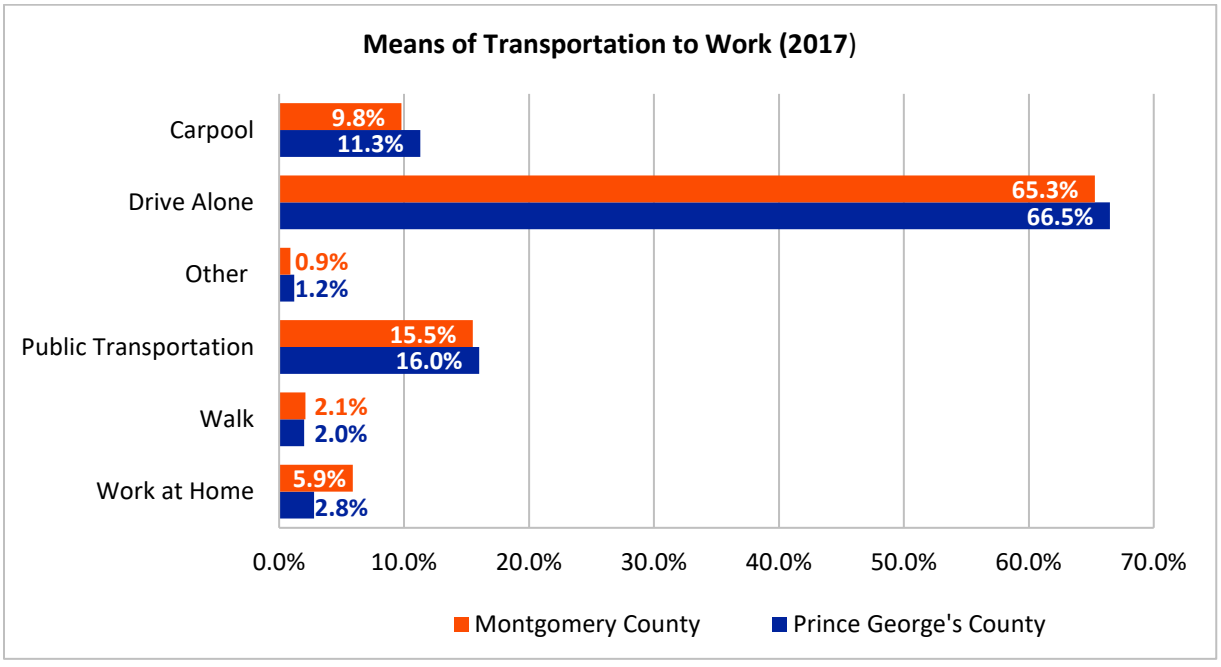


Figure 1. Means of Transportation to Work, 2017
(Source: U.S. Census Bureau, 2017 ACS 5-Year Estimates)

- The mean travel time to work for Montgomery County is 34.7 minutes; whereas the mean travel time for Prince George's County is 36.9 minutes (Figure 2).

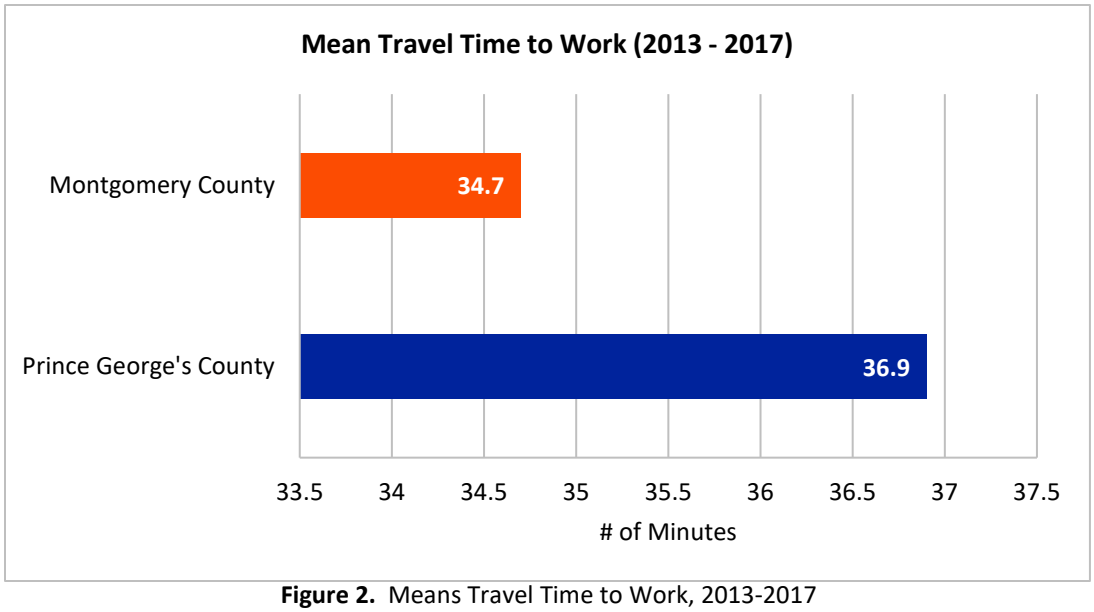


Figure 2. Means Travel Time to Work, 2013-2017
(Source: U.S. Census Bureau & PGC Health Zone, 2017)

- The mean travel time to work for females in Montgomery County is 33.2 minutes and in Prince George's County it is 37.7 minutes. For males, the mean travel time to work is 36.1 minutes in both Montgomery and Prince George's County (Figure 3).

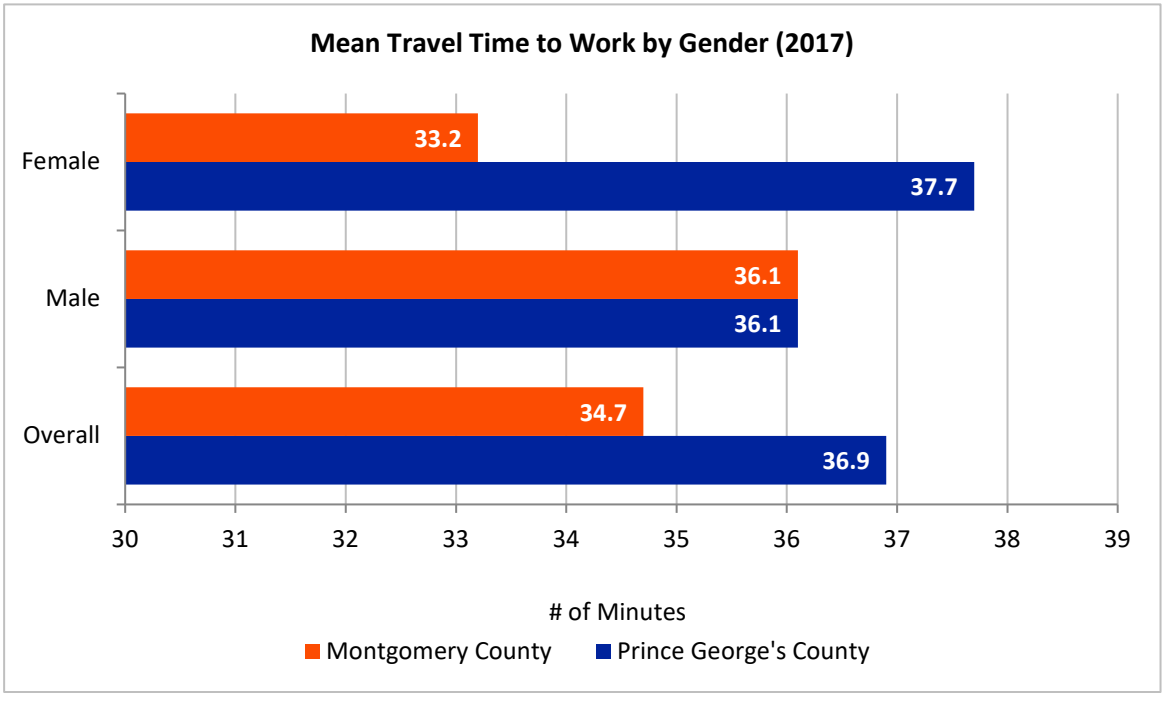


Figure 3. Mean Travel Time to Work by Gender for Prince George's County and Montgomery County, 2017
(Sources: Healthy Montgomery & PGC Health Zone, 2017)

Pedestrian Safety

- The rate of pedestrian injuries on public roads in Montgomery County in 2017 was 46 per 100,000 population. In Prince George's County, the rate was 49 per 100,000 population. The rate for the state of Maryland is higher than both counties with 54 per 100,000 population (Figure 4).

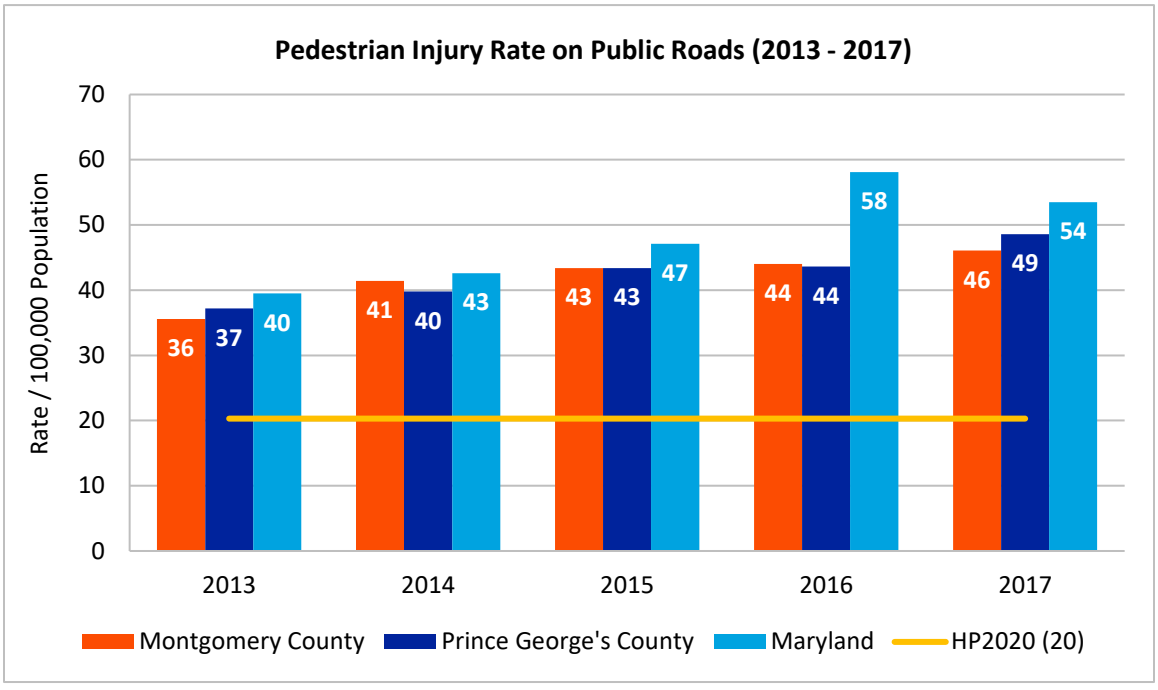


Figure 4. Rate of Pedestrian Injuries per 100,000 Population in Montgomery County, Prince George's County, & Maryland, 2013 - 2017
(Source: MD SHIP, 2017)

- From 2011 to 2015, in Montgomery County, Black and Hispanic individuals experienced the highest number of traffic fatalities among both vehicle occupants and non-occupants (Figure 5).

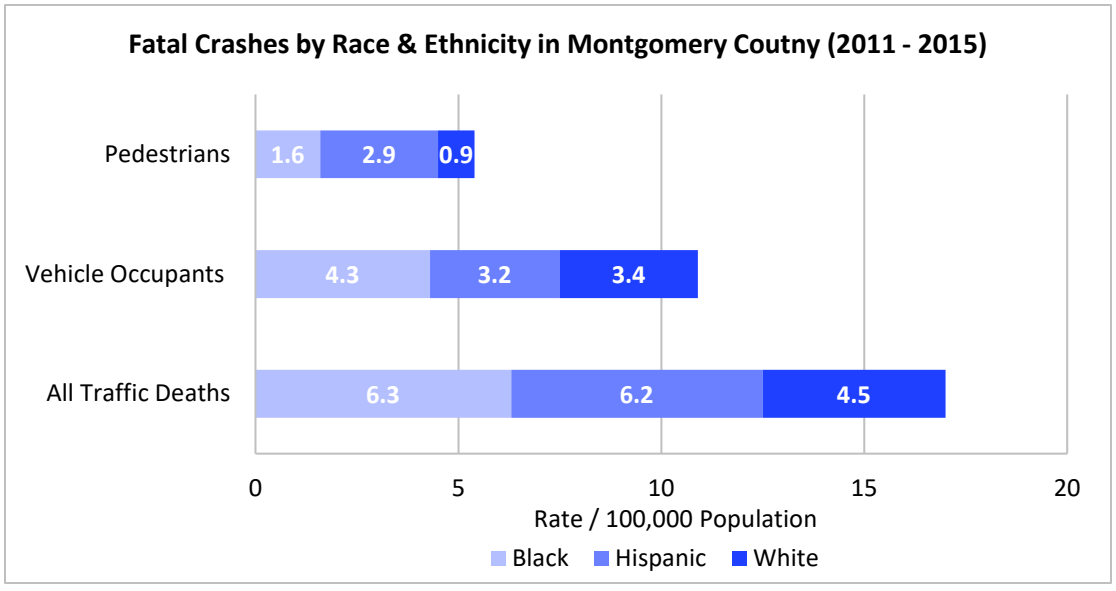


Figure 5. Montgomery County Fatalities by Race & Ethnicity, 2011 - 2015
(Source: Vision Zero, 2015)

- From 2012 to 2014, in Montgomery County, White non-Hispanic individuals experienced the highest number of traffic fatalities among both vehicle occupants and non-occupants (Table 1).
- From 2012 to 2014, in Prince George's County, Black/African-American non-Hispanic individuals experienced the highest number of traffic fatalities among both vehicle occupants and non-occupants. (Table 2).

MONTGOMERY COUNTY TRAFFIC FATALITIES (2012 - 2014)				
PERSON TYPE BY RACE/HISPANIC ORIGIN		**2012**	**2013**	**2014**
Occupants (All Vehicle Types)	Hispanic	2	5	4
	White, Non-Hispanic	**11**	**12**	**13**
	Black, Non-Hispanic	7	6	4
	Asian, Non-Hispanic/Unknown	0	0	0
	All Other Non-Hispanic or Race	3	3	4
	Unknown Race and Unknown Hispanic	7	1	3
	Total	*30*	*27*	*28*
Non-Occupants (Pedestrians, Pedal cyclists and Other/Unknown Non-Occupants)	Hispanic	0	1	1
	White, Non-Hispanic	**4**	**6**	**4**
	Black, Non-Hispanic	2	4	1
	Asian, Non-Hispanic/Unknown	0	1	1
	All Other Non-Hispanic or Race	0	0	0
	Unknown Race and Unknown Hispanic	1	1	4
	Total	*7*	*13*	*11*
Total	Hispanic	2	6	5
	White Non-Hispanic	**15**	**18**	**17**
	Black, Non-Hispanic	9	10	5
	Asian, Non-Hispanic/Unknown	0	1	1
	All Other Non-Hispanic or Race	3	3	4
	Unknown Race and Unknown Hispanic	8	2	7
	Total	*37*	*40*	*39*

Table 1. Montgomery County Fatalities by Person Type, Race and Ethnicity, 2012 - 2014
(Source: National Highway Traffic Safety Administration-Traffic Safety Facts, 2015)

PRINCE GEORGE'S COUNTY TRAFFIC FATALITIES (2012 - 2014)				
PERSON TYPE BY RACE/HISPANIC ORIGIN		**2012**	**2013**	**2014**
Occupants (All Vehicle Types)	Hispanic	5	7	3
	White Non-Hispanic	7	8	8
	Black, Non-Hispanic	**36**	**35**	**47**
	All Other Non-Hispanic or Race	0	3	1
	Unknown Race and Unknown Hispanic	15	17	9
	Total	63	70	68
Non-Occupants (Pedestrians, Pedal cyclists and Other/Unknown Non-Occupants)	Hispanic	1	0	4
	White Non-Hispanic	4	1	6
	Black/AA, Non-Hispanic	**14**	**10**	**12**
	All Other Non-Hispanic or Race	0	0	0
	Unknown Race and Unknown Hispanic	5	6	8
	Total	24	17	30
Total	Hispanic	6	7	7
	White Non-Hispanic	11	9	14
	Black/AA, Non-Hispanic	**50**	**45**	**59**
	All Other Non-Hispanic or Race	0	3	1
	Unknown Race and Unknown Hispanic	20	23	17
	Total	87	87	98

Table 2. Prince George's County Fatalities by Person Type, Race and Ethnicity, 2012 - 2014
(Source: National Highway Traffic Safety Administration-Traffic Safety Facts, 2015)

- In Prince George's County, the age-adjusted death rate due to motor vehicle traffic collisions is slightly higher than the state of Maryland (Table 3).

Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions, 2015 - 2017	
Prince George's County	9.4
Maryland	8.8

Table 3. Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions in Prince George's County, 2015 – 2017
Death rate per 100,000 population
(Source: PGC Health Zone, 2017)

- In Montgomery County the age-adjusted death rate due to motor vehicle traffic collisions is significantly lower than Maryland and Prince George's County, despite the different measurement period (Table 3 and 4).

Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions, 2012 - 2016	
Montgomery County	4.7
Maryland	8.6

Table 4. Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions in Montgomery County, 2012 – 2016
(Source: CARES Engagement Network, 2017)

- In Prince George's County, when looking at the age-adjusted death rate by race/ethnicity, Whites have a higher date rate due to motor vehicle traffic collisions than the other races/ethnicities (Figure 8).
- When looking at the age-adjusted death rate by gender, males have a higher death rate due to motor vehicle traffic collisions (Figure 8).

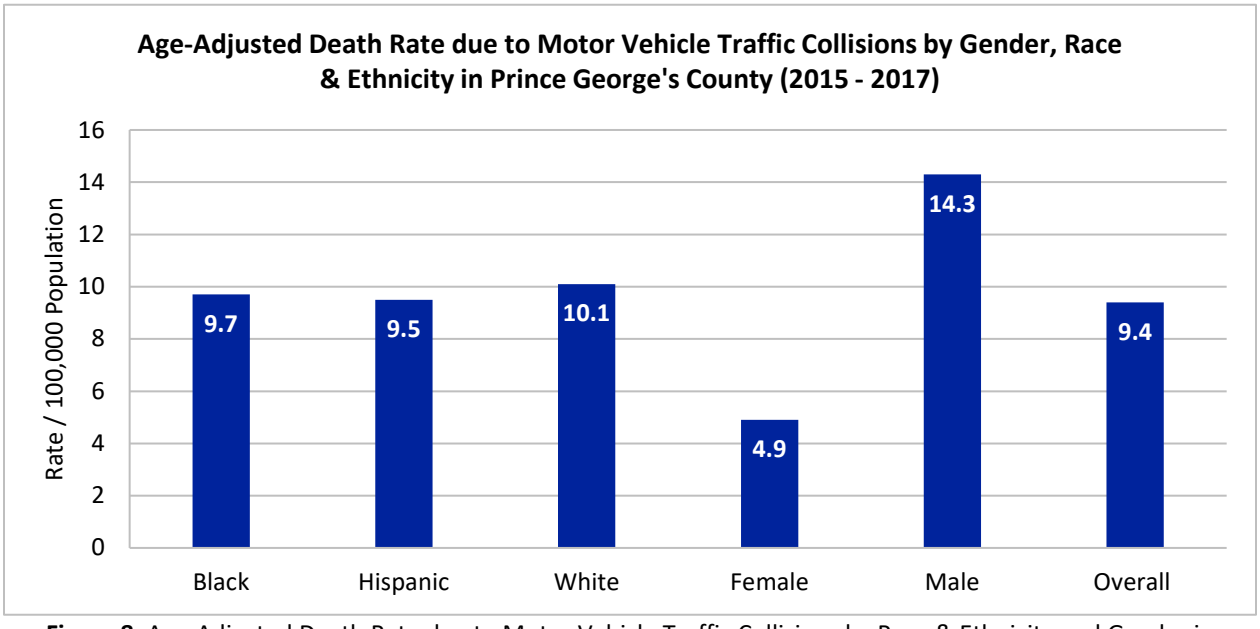


Figure 8. Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions by Race & Ethnicity and Gender in Prince George's County, 2015 - 2017
(Source: PGC Health Zone, 2017)

- In Montgomery County, when looking at the age-adjusted death rate by race/ethnicity, Hispanics have a higher death rate due to motor vehicle traffic collisions than the other races/ethnicities (Figure 9).

- When looking at the age-adjusted death rate by gender, males have a higher death rate due to motor vehicle traffic collisions (Figure 9).

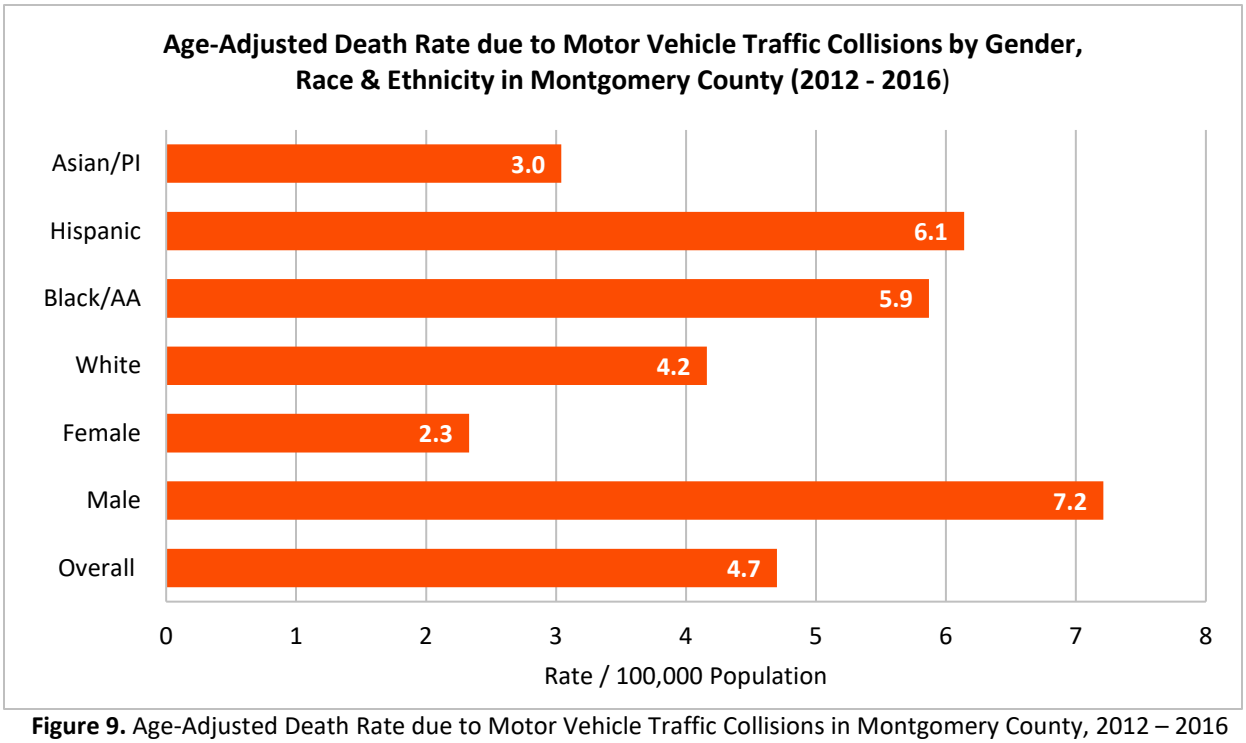


Figure 9. Age-Adjusted Death Rate due to Motor Vehicle Traffic Collisions in Montgomery County, 2012 – 2016 (Source: CARES Engagement Network, 2017)

Community Resources

There are several public transportation options in Montgomery County and Prince George's County, these resources include, but are not limited to, the following:

1. **MARYLAND TRANSPORTATION RESOURCE INFORMATION POINT**
   TRIP is your one-stop source for Maryland transit information.
   Website: https://www.mdtrip.org/

2. **MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION**
   Website:
   https://www.montgomerycountymd.gov/dot/index.html

   Ride on Flex
   Website:
   https://www.montgomerycountymd.gov/dot-transit/flex/index.html

   Senior Transportation
   Website:
   https://www.montgomerycountymd.gov/senior/transportation.html

   Medical Assistance Transportation Program
   Phone: 240-777-5890
   Email:
   medicaidtransportation@montgomerycountymd.gov
   Website:
   https://www.montgomerycountymd.gov/HHS-Program/ADS/Transportation/MedAssist.html

3. **PRINCE GEORGE'S COUNTY – TRANSPORTATION**
   Website:
   https://www.princegeorgescountymd.gov/1099/Transportation

   Medical Assistance Transportation Program
   Phone: 301-856-9555
   Website:
   https://www.princegeorgescountymd.gov/2104/Medical-Assistance-Transportation-Progra

4. **JEWISH COUNCIL FOR THE AGING**
   JCA helps seniors find transportation solutions through our Connect-A-Ride resource center
   Address: 12320 Parklawn Drive
   Rockville, MD 20852-1726
   Phone: 301.255.4200
   Email: Senior.HelpLine@AccessJCA.org
   Website: https://accessjca.org/

5. **DISABLED AMERICAN VETERANS**
   Provides free transportation (with ID) to VA medical facilities for injured and ill veterans.
   Website:
   https://www.dav.org/veterans/i-need-a-ride/

6. **ANGEL WHEELS**
   Dedicated to providing non-emergency, long-distance ground transportation to financially disadvantaged, ambulatory patients who are traveling for treatment.
   Website: https://angelwheels.org/

7. **THE AMERICAN CANCER SOCIETY - TRANSPORTATION**
   Transportation shouldn't be a roadblock to cancer treatment.
   Phone: 1-800-227-2345
   Website:
   https://www.cancer.org/treatment/support-programs-and-services/patient-transportation.html

8. **CITY OF BOWIE, MARYLAND - TRANSPORTATION**
   Curb-to-curb transportation for Bowie senior citizens and adult individuals with disabilities.
   Phone: 301-809-2324
   Website:
   https://www.cityofbowie.org/563/Transportation-for-Seniors

Section IV: Evaluation

Introduction

Based on the findings from the 2017 – 2019 Community Health Needs Assessment, Adventist HealthCare Rehabilitation Hospital developed an Implementation Strategy to address the prioritized areas of concussion care, screening and education. An overview of each of the major programs undertaken over the past three years, as well as their outcomes, is provided below.

Athletic Trainer Program

Need *As originally identified in the 2017 - 2019 CHNA*	The Center for Disease Control and Prevention estimates that there are more than 3.8 million sports-related concussions per year in the United States. Data from the 2004 to 2009 college sports season showed sports-related concussions comprised 9.2 percent of all injuries sustained in women's soccer, 7.4 percent in football, 6.3 percent in field hockey, 5.5 percent in men's soccer and 4.1 percent in women's volleyball[1]. A high school sports-related injury surveillance study for the 2014 - 2015 school year found that head/face concussions comprised 20.9 percent of overall injuries sustained during both competitions and practice[2]. In 2014, 4,279 Marylanders were hospitalized because of a traumatic brain injury (TBI) and 39,177 emergency department visits in Maryland were attributed to TBI-related injuries[3]. From 2006 to 2010, Montgomery County had the highest percentage of TBI-related emergency department visits in the state as well as the fourth highest percentage of TBI-related hospital discharges[4]. From 2010 to 2011, Adventist HealthCare Rehabilitation had a higher percentage (12.8 percent) of brain injury discharges than the region (11.4 percent) and the nation (10.7 percent)[5].
Program Overview *Programs and initiatives conducted in response to the need identified*	Adventist HealthCare Rehabilitation implemented an athletic trainer program at 13 Montgomery County high schools. This included training and placing an athletic trainer in each of the schools to assist with timely on-site injury prevention and management. • Trainers attended all 'home' athletic events as well as 'away' varsity football games • Trainers performed functions within the six domains of athletic trainers as established by the National Athletic Trainers Association: prevention; clinical evaluation and diagnosis; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and professional responsibilities

[1] Datalys Center: Sports Injury Research and Prevention, 2004-2009
[2] National High School Sports-Related Injury Surveillance Study: 2014 – 2015 School Year Convenience Sample Summary Report. http://www.ucdenver.edu/academics/colleges/PublicHealth/research/ResearchProjects/piper/projects/RIO/Documents/Convenience%20Report_2014_15.pdf
[3] Maryland Traumatic Brain Injury Advisory Board (2016). Annual Report. Retrieved from http://www.biamd.org/uploads/8/5/7/7/85779996/2016_maryland_traumatic_brain_injury_advisory_board_report.pdf
[4] Department of Health and Mental Hygiene, 2006-2010.
[5] Patient Outcomes Report. Adventist Rehabilitation Hospital of Maryland. 2011. http://www.adventistrehab.com/app/files/public/213/pdf-ARHM-Patient-Outcomes.pdf

	• Trainers assisted in implementing school and system wide responsibilities related to the health and safety of student athletes • Trainers provided American Heart Association CPR/AED recertification for athletic staff at the 13 Montgomery County high schools Schools included Churchill, Clarksburg, Einstein, Kennedy, Richard Montgomery, Northwest, Paint Branch, Poolesville, Rockville, Springbrook, Watkins Mill, Wheaton, and Wootton
Outcomes *Process and Outcome measures 2017 - 2019*	**Athletic Trainer Program Outcomes (2017 – 2019)** • **13** certified athletic trainers were present for all athletic seasons over the past three years in 13 Montgomery County High Schools. • A total of **1,738** injuries were evaluated, documented, and treated • **175** school personnel were either newly certified or recertified in basic life support and CPR

Concussion Program

Need *As originally identified in the 2017 - 2019 CHNA*	The Center for Disease Control and Prevention estimates that there are more than 3.8 million sports-related concussions per year in the United States. Data from the 2004 to 2009 college sports season showed sports-related concussions comprised 9.2 percent of all injuries sustained in women's soccer, 7.4 percent in football, 6.3 percent in field hockey, 5.5 percent in men's soccer and 4.1 percent in women's volleyball[6]. A high school sports-related injury surveillance study for the 2014 - 2015 school year found that head/face concussions comprised 20.9 percent of overall injuries sustained during both competitions and practice[7]. In 2014, 4,279 Marylanders were hospitalized because of a traumatic brain injury (TBI) and 39,177 emergency department visits in Maryland were attributed to TBI-related injuries[8]. From 2006 to 2010, Montgomery County had the highest percentage of TBI-related emergency department visits in the state as well as the fourth highest percentage of TBI-related hospital discharges[9]. From 2010 to 2011, Adventist HealthCare Rehabilitation had a higher percentage (12.8 percent) of brain injury discharges than the region (11.4 percent) and the nation (10.7 percent)[10].
Program Overview *Programs and initiatives conducted in response to the need identified*	Adventist HealthCare Rehabilitation implemented a concussion screening and follow-up program for student athletes at 13 Montgomery County high schools. Baseline testing is a pre-season exam conducted by trained professionals to assess an athlete's cognitive functions including learning and memory skills, ability to concentrate and problem-solving skills. In the event that the athlete suffers a concussion, the results from these tests can be used in comparison with similar post-injury tests. Adventist HealthCare Rehabilitation used ImPACT™ (Immediate Post-Concussion Assessment Cognitive Test), a web-based, computerized tool used to measure memory, processing speed, reaction time, attention span and problem-solving skills.

[6] Datalys Center: Sports Injury Research and Prevention, 2004-2009
[7] National High School Sports-Related Injury Surveillance Study: 2014 – 2015 School Year Convenience Sample Summary Report. http://www.ucdenver.edu/academics/colleges/PublicHealth/research/ResearchProjects/piper/projects/RIO/Documents/Convenience%20Report_2014_15.pdf
[8] Maryland Traumatic Brain Injury Advisory Board (2016). Annual Report. Retrieved from http://www.biamd.org/uploads/8/5/7/7/85779996/2016_maryland_traumatic_brain_injury_advisory_board_report.pdf
[9] Department of Health and Mental Hygiene, 2006-2010.
[10] Patient Outcomes Report. Adventist Rehabilitation Hospital of Maryland. 2011. http://www.adventistrehab.com/app/files/public/213/pdf-ARHM-Patient-Outcomes.pdf

	This test takes between 30 to 45 minutes and is considered one of the standard baseline tests for student athletes. The following strategies were implemented as a part of this initiative: • Implemented ImPact™ baseline testing for student athletes in 13 Montgomery County high schools (with each student baseline tested every 2 years and retested following a concussion) ○ Schools included Churchill, Clarksburg, Einstein, Kennedy, Richard Montgomery, Northwest, Paint Branch, Poolesville, Rockville, Springbrook, Watkins Mill, Wheaton, and Wootton • Maintained and made available baseline test results to students, parents, and students' health care providers at no cost • Provided retests following a concussion at no cost (analysis and treatment were an additional cost) • Provided follow-up testing and analysis for students as needed at a reasonable rate • Served as a resource on concussion education for students, parents, and coaches
Outcomes *Process and Outcome measures 2017 - 2019*	**Baseline Concussion Testing (2017 – 2019)** • Baseline concussion testing was coordinated with school personnel for **13** Montgomery County High Schools over the last three school years • ImPact™ baseline testing was completed at 13 Montgomery County high schools with a total of **11,265** baseline tests conducted • A total of **288** concussions were diagnosed/or suspected and treated **Concussion Education Presentations for Student Athletes (2017)** In addition to the baseline concussion testing, Adventist HealthCare Rehabilitation Hospital implemented a Concussion Education presentation for student athletes during the 2017 school year, due to unforeseeable challenges, the presentation was not continued from 2018 - 2019. The goal of the Concussion Education presentation was to increase knowledge and awareness of concussion symptoms, acute treatments, importance of recovery, and effects on every day activities beyond sports. The presentation covered topics such as traumatic brain injury, causes and symptoms, anatomy, and mechanism of injury, to name a few. • One Concussion Education presentation occurred at John F. Kennedy High School with a total of **36** participants • From the presentation pre and post-test females had a **20 percent** and males had a **26 percent increase** in knowledge

Brain Injury Support Groups

Need *As originally identified in the 2017 - 2019 CHNA*	In Maryland, the overall incidence of traumatic brain injury related emergency department visits increased between 2012 and 2015[11]. Seniors ages 65 and older had the highest rates of traumatic brain injury related deaths and TBI related hospitalizations. The highest rate of TBI injury related emergency department visits was for Marylanders ages 5 to 24. Unintentional falls are the leading cause of injury for TBI related deaths, emergency department visits, and hospitalizations. Montgomery County had higher emergency department visits and deaths due to TBI when compared to Prince Georges County. According to Adventist HealthCare Rehabilitation 2015 hospital data, the average age of those suffering from TBI was 70 years, with males and white individuals accounting for the majority of patients.
Program Overview *Programs and initiatives conducted in response to the need identified*	The primary objective of this initiative was to provide support and education to individuals living with both traumatic and non-traumatic brain injuries, as well as their family members and caregivers. **Brain Injury Support Group** This support group, which met once a month, is for those with both traumatic and non-traumatic brain injuries. The group provided support and education, as well as guidance around available community resources. Participants were encouraged to bring family members and friends. **Grupo de Apoyo para Personas con una Lesión Cerebral** This support group met every third Tuesday of the month for two hours in the evenings. The growing Hispanic population in Montgomery County prompted the creation of the support group. The group was conducted in Spanish and was targeted to Spanish speaking individuals. All sessions were moderated by a therapist and cultural diversity liaison and focused on common themes which included: traumatic brain injury or stroke, community resources, back to work, mental health, memory loss, and recreational activities. Guest speakers from local community-based organizations occasionally attended and presented on resources their organizations were able to offer.

[11] Maryland Traumatic Brain Injury Advisory Board. (2017). Annual Report. Retrieved from https://www.biamd.org/uploads/8/5/7/7/85779996/2017_-_tbi_advisory_board_annual_report.pdf

Outcomes *Process and Outcome measures 2017 - 2019*	**Brain Injury Support Group** • Over the last three years there were **48 sessions** with a total of **531*** **encounters** **Grupo de Apoyo para Personas con una Lesión Cerebral** • Over the last three years there were **32 sessions** with a total of **345 encounters** **Encounters only include CY2018 and CY2019*