

Community Health Needs Assessment Report

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SUBURBAN HOSPITAL



COMMUNITY HEALTH NEEDS ASSESSMENT

2019



SUBURBAN HOSPITAL
JOHNS HOPKINS MEDICINE

**Suburban Hospital
Community Health Needs Assessment
2019**

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2 INTRODUCTION

A. OVERVIEW OF SUBURBAN HOSPITAL

Suburban Hospital is a community-based, not-for-profit hospital serving Montgomery County and the surrounding area since 1943. The hospital provides all major services except obstetrics. The hospital is one of nine regional trauma centers in Maryland and the state-designated level II trauma center for Montgomery County, with a fully equipped and elevated helipad. Suburban Hospital's Emergency/Shock Trauma Center treats more than 40,000 patients a year.

The hospital's primary services include:

- A comprehensive cancer center accredited by the American College of Surgeons Commission on Cancer
- Cardiac surgery, including elective and emergency angioplasty, as well as inpatient diagnostic and rehabilitation services
- Orthopedics with joint replacement and physical rehabilitation
- Behavioral services, including crisis intervention

- Neurosciences, including a designated Primary Stroke Center and a 24/7 stroke team
- Senior Services, such as the Nurses Improving Care for Healthsystem Elders (NICHE) designation from The Hartford Institute for Geriatric Nursing at New York University College of Nursing

Other services include the NIH-Suburban MRI Center; state-of-the-art diagnostic pathology and radiology departments; outpatient Addiction Treatment Center offering programs for adolescents and adults; prevention and wellness programs; free physician referral service (Suburban On-Call); and the Certified Total Joint Replacement Program by The Joint Commission.

During fiscal year 2018, Suburban Hospital was licensed to operate 233 beds with 14,156 inpatient admissions and 46,080 emergency department visits. A 25-member volunteer Board of Trustees governs Suburban Hospital. See **Appendix A** for Suburban Hospital Board of Trustees 2018-2019.

B. WHY A COMMUNITY HEALTH NEEDS ASSESSMENT?

Under Section 501(c) (3) of the Internal Revenue Code, nonprofit hospitals may qualify for tax-exempt status if they meet specific federal requirements. The 2010 Patient Protection and Affordable Care Act (ACA) added four basic requirements to the Code. One of the additional requirements for tax-exempt status is the

provision of a CHNA every three years and an implementation strategy to meet the identified health needs [1].

The purpose of a community health needs assessment is to identify the most important health issues in the geographic area surrounding

the hospital using scientifically valid health indicators and comparative information. The assessment also identifies priority health issues where better integration of public health and health care can improve access, quality, and cost effectiveness of services to residents surrounding the hospital.

This report represents Suburban Hospital’s efforts to share information that can lead to improved health status and quality of care available to local residents while building upon and strengthening the community’s existing infrastructure of services and providers.

C. COMMUNITY IMPACT SINCE 2016 CHNA

The five health priorities identified through the 2016 Community Health Needs Assessment are as follows:

- Cardiovascular Health
- Obesity
- Cancer
- Diabetes
- Behavioral Health

Thanks to organizational efforts and community partnerships, measurable progress is being made on these priorities. See **Appendix B** for a summarized status update on each priority. Progress on these priorities is provided to the community via Suburban Hospital’s annual Community Health Improvement Report.

3 SUBURBAN HOSPITAL’S METHODOLOGY FOR COMMUNITY HEALTH NEEDS ASSESSMENT

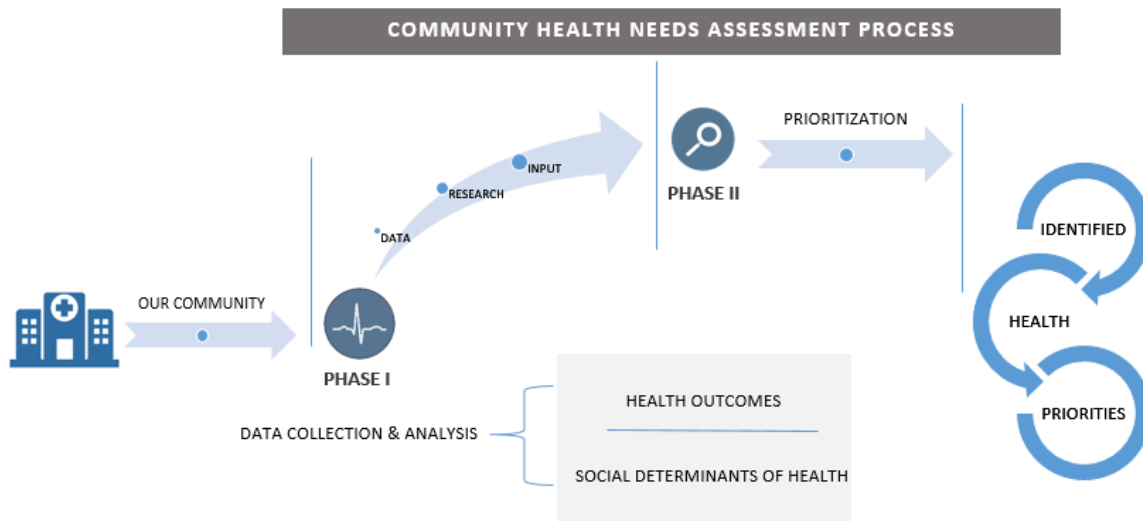


Figure 1. Community Health Needs Assessment Process

To effectively identify and prioritize health needs for Montgomery County residents, Suburban Hospital implemented a two-phase process to execute its CHNA (See Figure 1, Pg. 6):

- Phase I - Data collection and analysis
- Phase II - Prioritization of identified health needs

Through this methodology, Suburban ensured optimum collaboration and leverage of resources, reduction of redundancies and support of an ongoing health improvement process and infrastructure.

Phase I. Data Collection & Analysis

The first part of the process consisted of reviewing and collecting data on the health of the **community** we serve. This phase required consulting individuals and organizations that represent the broad interest of the community as well as considering various data sources. The methods used included:

- Collecting primary data (e.g., inpatient and emergency department data) from hospital units and programs

- Collecting secondary datasets for core health indicators (Census, BFFRS, Healthy Montgomery, Health Report MoCo, etc.)
- Consulting Healthy Montgomery
- Engaging health experts and key stakeholders
- Collecting primary data via community conversations and surveys

Phase II. Prioritization Process

The priority setting process allows us to narrow down the top health conditions identified in Phase I. The following methods and considerations were included in the priority setting process:

- The total burden of disease
- Alignment with county-wide health priorities
- Alignment with hospital goals & priorities
- The hospital's ability to feasibly impact the issue

The Identified Health Needs of Our Community

Community health needs were selected using a multi-phase, collaborative and data-driven process. The health priorities identified during this assessment were as follows:

- Cardiovascular Health
- Cancer
- Diabetes
- Behavioral Health
- Emerging Priorities
 - Infections
 - Accidents

4 MONTGOMERY COUNTY, MD DEMOGRAPHICS

Suburban Hospital is located in Montgomery County, MD, one of the most affluent counties in the United States. Montgomery County is adjacent to Washington, D.C. and by the Maryland counties of Frederick, Carroll, Howard and Prince George’s, and the Commonwealth of

Virginia. Montgomery County has a population of 1.05 million people with a median age of 39 and a median household income of \$100,352 [2]. The population in the County has slightly increased since the last CHNA assessment (**Table 1**).

Table 1. Change in Population Size

CHNA	Montgomery County	Maryland	USA
2016	1,016,677	5,928,814	319,459,991
2019	1,058,810	6,052,177	337,947,861
% Change 2016-2019	4.1%	2%	5.8%

Source: County Health Rankings & Truven Health Analytics, Inc., US Census [2&3]

Age

The average life expectancy in Montgomery County is 84.8 years, which is higher than the Maryland baseline (79.1). The life expectancy for White non-Hispanics (84.7) is slightly higher than Black non-Hispanics (83.1) [4]. In 2017, the median age of all people in Montgomery County, MD was 39. Native-born citizens, with a median

age of 32.9, are generally younger than foreign-born citizens, with a median age of 44.8. In general, the population in Montgomery County is getting older. In the last assessment, the average age for Montgomery County residents was 38.5 [3].

Ethnic/Racial Diversity

Montgomery County prides itself on its racial diversity and cultural richness with a population that is 60.4% White, 19.7% Black or African American and 15.6% Asian. Foreign-born residents account for 32.6% of the people in the county with the largest Hispanic/Latino (19.6%) community in Maryland. It is not surprising to

find that 39.8% of county residents speak a language other than English at home [5]. The most commonly spoken languages, aside from English (60.7%), include Spanish (17.6%), other Indo-European (9.8%), and Asian and Pacific Islander languages (9.8%) [3].

Economic Characteristics

The Montgomery County's average *household* size is 2.8 persons, and the average *family* size is 3.22 persons [3,5]. The average household income in the County continues to rise (**Figure 2**). The current income value is \$100,352 compared to \$99,435 in the 2016 CHNA [2]. While the per capita income is \$49,906, looking at specific racial/ethnic groups reveals great disparities. For example, the per capita income for White non-Hispanics (\$69,614) is almost three times that of Hispanics/Latinos (\$24,268) [5].

In the County, 49% of renters spend 30% or more of their household income on rent, leaving minimal resources for other expenses such as food, transportation and health (2012-2016) [3]. Compared to the state of Maryland (5.2%), Montgomery County is making faster progress in reducing unemployment. Since 2013, the unemployment rate for Montgomery County has fallen from 5.6% to 4.0% [2].

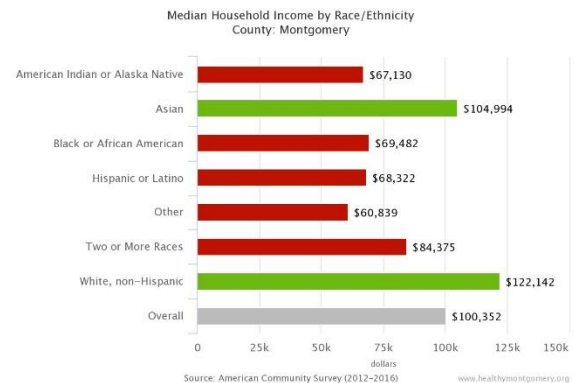
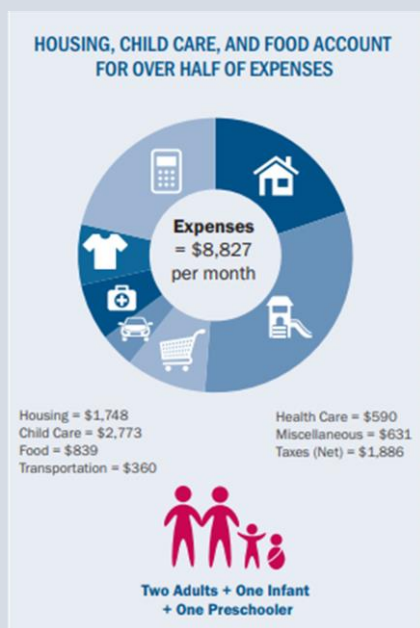


Figure 2. Adapted from Healthy Montgomery

Poverty levels in Montgomery County have remained steady. At the County level, it is estimated 6.9% of the total population and 4.7 % of families live below the federal poverty line. Poverty affects Montgomery County residents disproportionately. Black non-Hispanic (8.9%) and Hispanic/Latino (9.1%) families have the highest rates of poverty in the County. The least impoverished group are White non-Hispanics (1.8%).

Figure 3. Self-Sufficiency Standard



The Self-Sufficiency Standard defines the amount of income necessary to meet basic needs at a minimally adequate level without public or private assistance. The standard takes into consideration family type and geographic location. The variables taken into consideration include housing, child care, food, transportation, health care, taxes and credits, emergency savings and others. To live in Montgomery County without any private or public financial assistance, a family of four (two adults, one preschooler and an infant) requires an annual income of \$86,580 or \$8,827 per month (Figure 3). [6]

Education

It has been shown that a college degree is important for obtaining high paying jobs and having access to health care services. Montgomery County has a high percentage (58.1%) of residents over 25 years of age who

hold a Bachelor's Degree or higher. More Asians (67.5%) and White non-Hispanics (70.7%) hold Bachelor's Degrees or higher than Hispanics/Latinos. The rate for Hispanics/Latinos is 26.6% for females and 23.9% for males [31].

Health Care Access

People who do not have insurance and cannot afford to see a doctor may not receive proper and timely medical services. Lack of health insurance can also result in increased visits to the emergency room. Whereas 92.6% of the population in Montgomery County is insured, it is estimated 88,472 or 7.1% of adults under the age of 65 are uninsured [2]. Although private health insurance is the most common type of insurance in the County, 66.1% of Montgomery County residents receive coverage through their

employer while 15.6% of residents rely on public health coverage [5]. Health insurance does not necessarily guarantee access to health services. Communities that lack a sufficient number of primary care providers (PCP) are more likely to delay necessary care when sick, which can lead to more severe or complicated conditions. The PCP rate in the County has slightly declined since 2013. Nonetheless, the County's rate of 137 PCPs per 100,000 residents is significantly higher than the state (88) and national (75) rates [5].

5 DEFINING OUR COMMUNITY: COMMUNITY BENEFIT SERVICE AREA

A primary service area (PSA) is defined as the postal zip code areas from which 60 percent of a hospital's inpatient discharges originated during the most recent 12 month period. This

information is provided by the Maryland Health Services Cost Review Commission (HSCRC). **Appendix C** lists the 26 zip codes defined as Suburban Hospital's PSA.

Definition

For this assessment, Suburban Hospital defines its **community** as specific populations or communities of need to which the Hospital allocates resources through its community benefits plan. The term Community Benefit Service Area (CBSA) is used to define the community geographically. Suburban's CBSA extends beyond its primary service area.

Within its CBSA, Suburban Hospital focuses on vulnerable populations such as uninsured individuals and households, underinsured and low-income individuals and households, ethnically diverse populations, underserved seniors and at-risk youth. Approximately 50-60% of hospital service usage originates from these populations. Suburban does not distinguish

based on race, ethnicity, patient status, insurance status, religious affiliation, or ability to pay for health services.

During the 2019 CHNA process, Suburban Hospital revised the formula for calculating its CBSA to include data from Inpatient Records, Emergency Department (ED) Visits and Charity Financial Assistance Transactions. **See Appendix D.**

Once the data were aggregated, fourteen zip codes concentrated within the cities of Rockville, Bethesda, Silver Spring, Chevy Chase, Potomac and Kensington were identified. The following fourteen zip codes define Suburban’s CBSA for the 2019 Community Health Needs Assessment cycle: 20814, 20815, 20816, 20817, 20850, 20851, 20852, 20853, 20854, 20895, 20902, 20904, 20906 and 20910. **See Figure 4.**

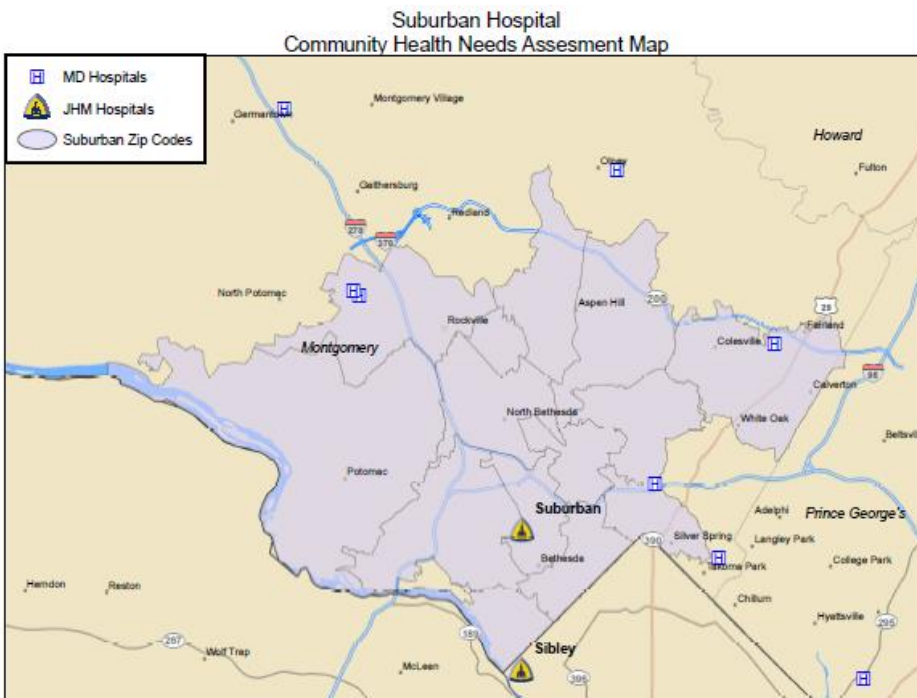


Figure 4. Suburban Hospital Community Benefit Service Area (CBSA) Map.

CBSA Demographics at a Glance

Suburban CBSA residents make up nearly 53% of the total population in Montgomery County (**See Table 1, Page 8**). The population size in our CBSA dropped by 12% (compared to the 2013 CHNA). The reduction is attributed to the incorporation of a revised CBSA formula, which resulted in the replacement of two zip codes. Out of the estimated 558,557 individuals residing the CBSA,

52% are females. While the average household income for Suburban’s CBSA is \$156,596 [7], 35% of the community’s income is below \$75,000 and 26% are Medicare or Medicaid beneficiaries. CBSA residents are racially and ethnically diverse. Blacks, Hispanics/Latinos and Asians make-up at least 48% of the community. **See Figures 5-10, Pg. 12.**

Figure 5. CBSA Population Size

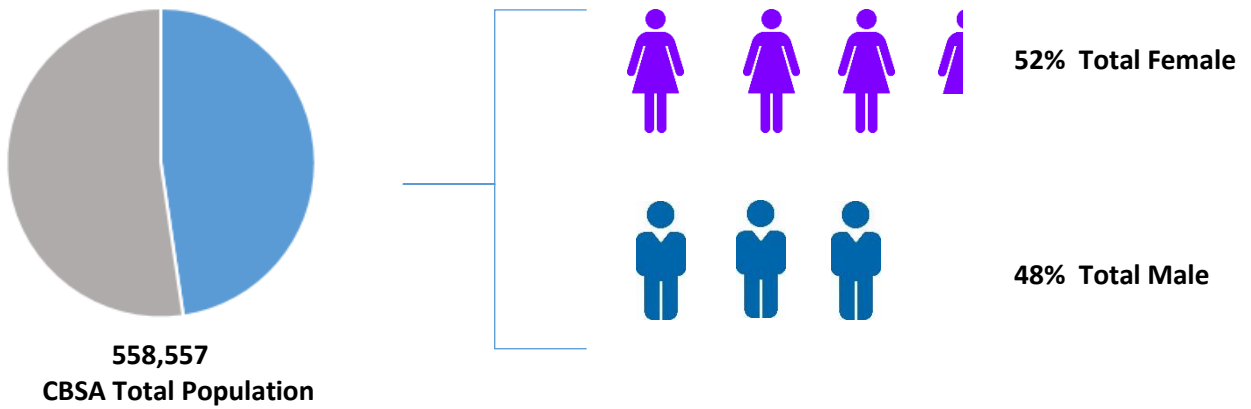


Figure 6. Population Distribution by Age Group

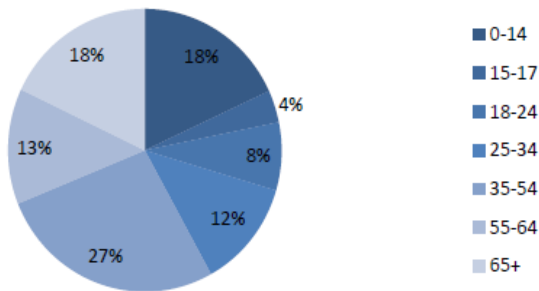


Figure 7. Population Distribution by Race/Ethnicity

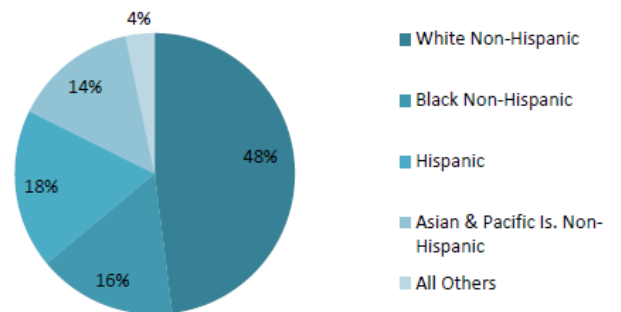
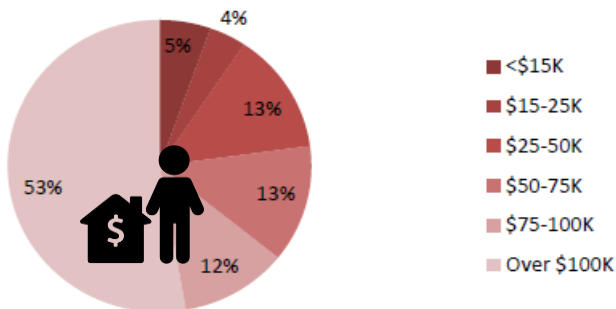


Figure 8. Current Households by Income Group



Average Household Income \$156,596

Figure 9. Population Age 25+ by Education Level

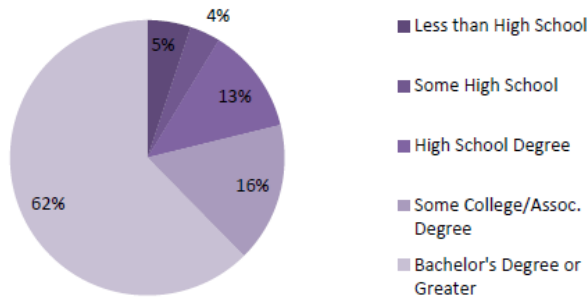
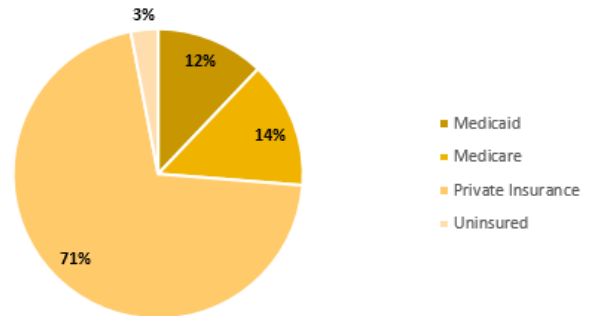


Figure 10. Insurance Coverage Distribution



6 PHASE I: DATA COLLECTION & ANALYSIS

A. HEALTH OUTCOMES

A range of health indicators is used to monitor population health. The most common health outcome indicators include life expectancy, mortality from health conditions, emergency department visits and hospital utilization rates. Unfortunately, available surveillance systems do not collect zip-code level data. Unless otherwise noted, County-level data was used to

understand the most pressing health issues affecting Suburban Hospital’s CBSA and compared to state and national data, provided as a reference where available. All data are sourced from Healthy Montgomery, Data Montgomery and the US Census unless otherwise indicated.



Life Expectancy & Premature Death

Life expectancy is the average age for which a person born in a specified year can expect to live. The life expectancy in Montgomery County is 84.9 and is high compared to the rest of the state and nation. Premature death occurs before the

average age of death in a population. The premature death rate or potential life lost before age 75 in Montgomery County is approximately 3,500 per 100,000 people (age-adjusted) compared to 6,400 for the state [2,5].



Leading Causes of Death in Montgomery County

Cause-of-death or mortality ranking allows for trend comparison and helps illustrate the relative burden of cause-specific deaths. According to the most recent Health Report available for Montgomery County, the leading causes of death were cancer (24%), heart disease (22%), cerebrovascular disease (5%), accident

(4%), chronic lower respiratory disease (3%), Alzheimer’s disease (3%), influenza and pneumonia (3%), diabetes mellitus (3%), septicemia (2%), and nephritis (2%) [8]. **Table 2** provides county, state and national mortality rate data for the top ten leading causes of death.

Table 2. Top 10 Age-Adjusted Mortality Rate, Montgomery County

Cause of Death	Montgomery County	Maryland	United States*
All deaths	478.6	715.3	728.8
Cancer	115.2	154.5	155.8
Heart Disease	110.2	166.4	165.5
Cerebrovascular Disease	23.1	39.3	37.3
Accidents	19.7	34.3	47.4
Chronic respiratory disease	15.1	30.3	40.6
Alzheimer’s Disease	13.1	17.0	30.3
Influenza and Pneumonia	12.5	15.6	13.5
Diabetes Mellitus	11.3	19.4	21
Septicemia	10.3	13.0	10.7
Nephritis	9.0	12.1	13.1

Data Source: Maryland Vital Statistics Annual Report 2017. Rates are age-adjusted, county-level mortality rates from 2015-2017. Rates are deaths per 100,000 people. [4]

*Health, United States, 2017 Report.[9]



Trends in Mortality & Race/Ethnicity Comparison: Top 5 Causes

Data provided is age-adjusted per 100,000 population (unless otherwise noted)

MORTALITY RATE FOR ALL CAUSES

Figure 11 provides a comparison for county, state and national mortality rates for all causes. Montgomery County's mortality rates continue to fall below state and national levels.

Figure 11. County Trend Comparison, 2008-16

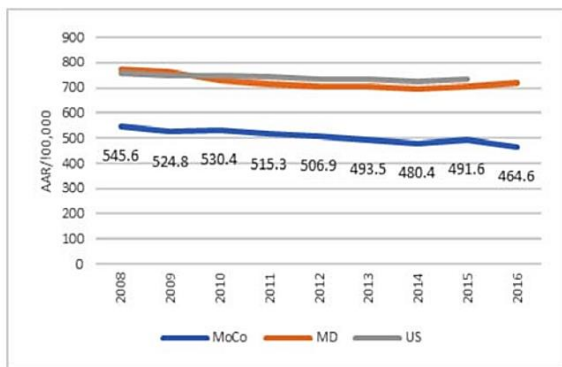
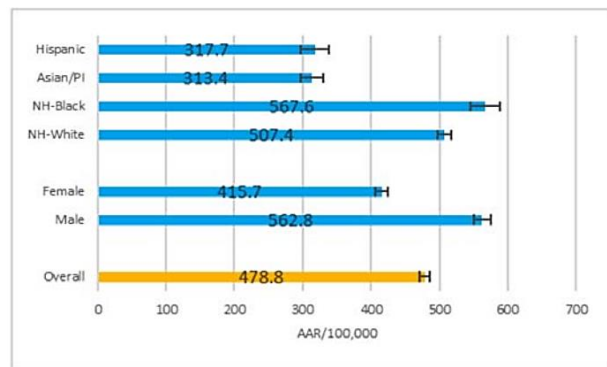


Figure 12 provides a breakdown of mortality rates across gender and ethnic/racial groups. Non-Hispanic Blacks and males have the highest rates of mortality compared to other groups.

Figure 12. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Adapted from Health in Montgomery County, 2008-2016, Report [8]

MORTALITY RATE TRENDS FOR CANCER

Malignant neoplasms, or cancer, is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If not treated, it can result in death.

A person's risk for developing cancer can be lowered by avoiding certain risk factors such as tobacco use, sedentary lifestyle and high-fat/low fiber diets. Prevention or delayed onset of cancer can also be achieved through screening methods that allow early detection and removal of precancerous growths, thereby improving health outcomes. Early detection methods are currently available for specific cancers.

While cancer mortality and incidence rates have declined over the past several years in Montgomery County, cancer is now the leading cause of death. According to the American Journal of Managed Care, this is a trend being seen across the US in high-income counties [10]. The age-adjusted cancer mortality rate in Montgomery County (115.2 per 100,000) is less than in Maryland (154.5 per 100,000). Cancer-related deaths continue to be more common among Blacks (132.6 per 100,000) than other racial/ethnic minorities. Men are more likely to die of cancer (135.5 per 100,000) than women (108.1 per 100,000) [11]. See Figures 13 & 14, Pg. 16.

Figure 13. County Trend Comparison, 2008-16

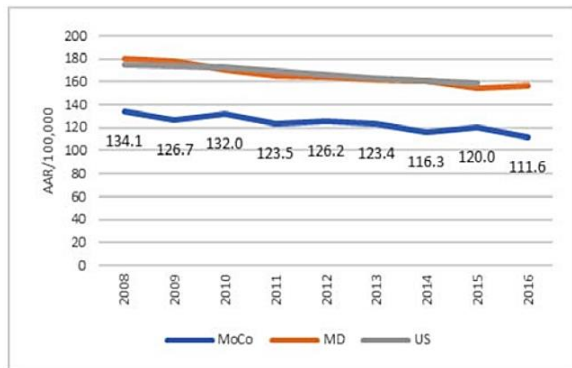
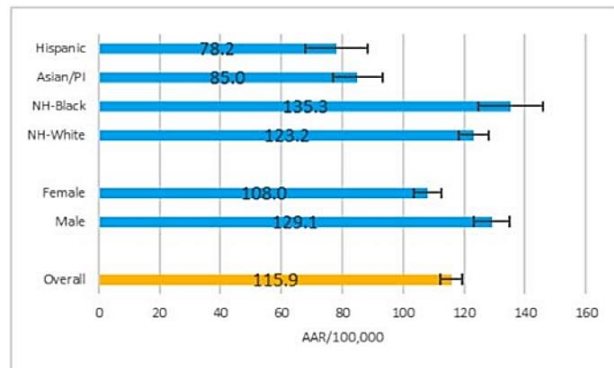


Figure 14. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Adapted from Health in Montgomery County, 2008-2016, Report [8]

When looking at specific types of cancers, breast and prostate have the highest incidence, but more people die from cancer of the lung and bronchus (**Table 3**). Breast cancer is most common among women, while prostate cancer is the most common type of cancer in men.

Although the mortality rate due to lung cancer among men has reached a plateau, the rate in women continues to rise. Colorectal and skin cancer rates are lower in Montgomery County than the rest of Maryland.

Table 3. Age-Adjusted Mortality and Incidence Rate by Cancer Type & Jurisdiction, 2010-2014

Cause of Death	Montgomery County		Maryland	
	Incidence	Mortality	Incidence	Mortality
Lung & Bronchus Cancer	32.7	24.7	56.6	43.1
Colon and Rectum Cancer	29.1	9.4	36.7	14.5
Female Breast Cancer	128.8	17.4	129.2	22.9
Prostate Cancer	113.9	15.2	125.4	20.3
Oral Cancer	8.6	1.5	10.5	2.3
Skin Cancer (Melanoma)	18.8	2.2	21.4	2.5
Cervical Cancer	5.2	1.1	6.4	2.0

Data Source: Maryland Department of Health 2017 Cancer Data. Rates are per 100,000 population and age-adjusted to 2000 U.S. standard population [11]

MORTALITY RATE TRENDS FOR HEART DISEASE

Cardiovascular disease (CVD) is an umbrella term for multiple conditions that involve the narrowing or blockage of the blood vessels of the heart, brain, and circulatory system. CVD is the leading cause of death in Maryland and the US. CVD can affect both men and women, without regard to ethnicity, race or socioeconomic status. There are several risk factors associated with CVD, including diabetes, hypertension, high cholesterol, obesity, smoking, alcohol use, poor diet and inactivity [12]. This disease can incur high health care costs due to its complexity.

The most common form of CVD is coronary heart disease, also known as heart disease or coronary artery disease. Coronary heart disease results from clogged arteries (atherosclerosis), which can cause chest pain (angina) and potentially lead to blood clots and a heart attack (myocardial infarction) [13].

Over the years, the age-adjusted death rate due to heart disease has slowly decreased in Montgomery County. The mortality rate in Montgomery County (110.2 deaths per 100,000) is lower than the state of Maryland (166.4 death per 100,000) [5]. See Figure 15 & 16.

The US has also seen a reduction in CVD mortality, which can be attributed to increased prevention and improved medical treatments (American Journal of Managed Care). However, disparities are still present across genders and races. [10]

Although CVD is not gender-specific, in Montgomery County men are more likely to die from heart disease. When comparing different races and ethnicities, Black non-Hispanics have the highest number of deaths associated with this health condition. [5]

Figure 15. County Trend Comparison, 2008-16

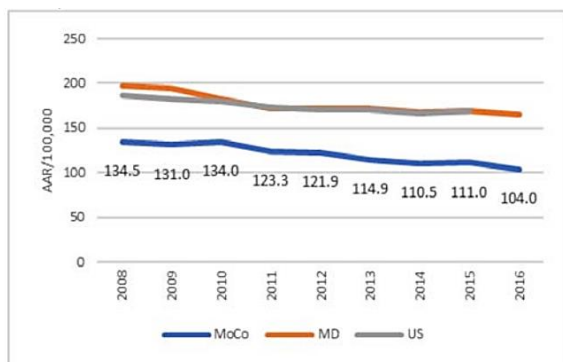
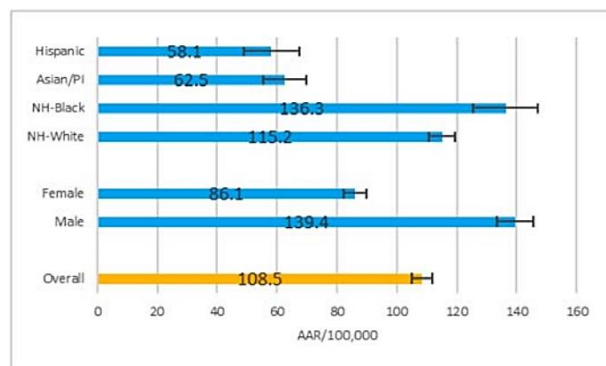


Figure 16. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Adapted from Health in Montgomery County, 2008-2016, Report [8]

According to the Centers for Disease Control & Prevention, approximately 5.7 million people in the United States suffer from congestive heart failure (HF). HF refers to the heart's inability to pump blood and oxygen to the body efficiently.

It is estimated about half of the people who develop HF will die within five years of diagnosis [14]. Coronary heart disease, ischemic heart disease, high blood pressure and myocardial infarctions are risk factors for HF. People with

diabetes are also at an increased risk of developing heart failure due to hypertension and atherosclerosis. In Montgomery County, the age-adjusted Emergency Room (ER) rate due to HF is 1.9 ER visits/10,000 people, while the hospitalization rate is 17.9 hospitalizations per 10,000 people [5]. The County ER and hospitalization HF rates are broken down by age

in **Figures 17** and **18**, respectively. Heart failure zip-code level data for the County is provided in **Appendix E**.

With an aging population, the HF prevalence is projected to increase, resulting in higher hospitalization rates and health care costs [15].

Figure 17. Age-Adjusted Emergency Room Rate

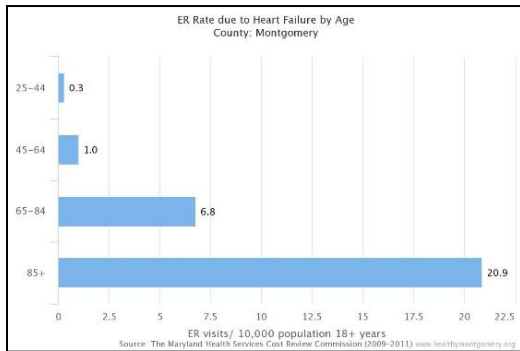
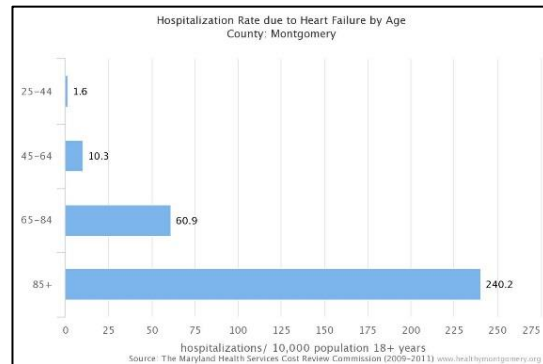


Figure 18. Age-Adjusted Hospitalization Rate



Source: Figures adapted from Healthy Montgomery [8]

MORTALITY RATE TRENDS FOR CEREBROVASCULAR DISEASE

Cerebrovascular disease, or stroke, is the brain’s equivalent of a heart attack. The age-adjusted death rate due to stroke in Montgomery County is 23.0 deaths per 100,000 people (See **Figure 19**). Cerebrovascular death rates are broken down by race and gender in **Figure 20**.

Cerebrovascular death rates tend to be slightly higher for Black non-Hispanics (27.3 per 100,000) than for White non-Hispanics (22.6 per 100,000). Hispanics/Latinos (19.6 per 100,000) continue to have the lowest rate of deaths attributed to cerebrovascular disease [5,8].

Figure 19. County Trend Comparison, 2008-16

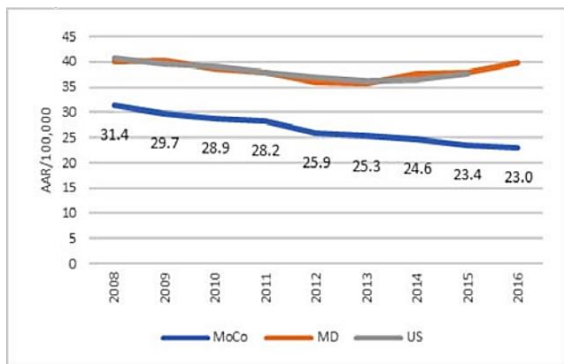
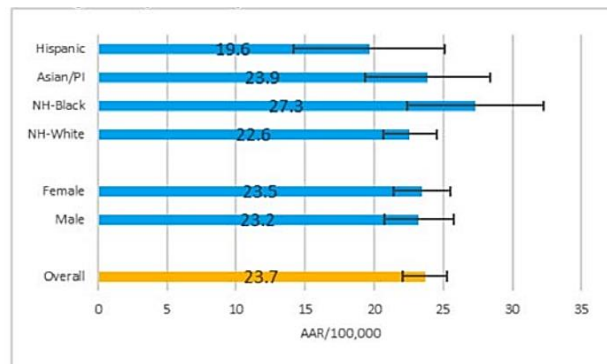


Figure 20. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Figures adapted from Health in Montgomery County, 2008-2016, Report [8]

Hypertension, or high blood pressure, and high cholesterol are two modifiable risk factors that place individuals at significant risk of developing stroke, heart disease, and other chronic conditions. Since the last CHNA, the prevalence rate in Montgomery County for high cholesterol

dropped from 38.1% to 32.8%. Hypertension prevalence in the County has been on the rise. Currently, 36% of Montgomery County residents have high blood pressure. The Medicare population accounts for 53.3% of hypertension cases [5].

MORTALITY RATE TRENDS FOR ACCIDENTS

Unintentional injuries or accidents affect everyone, regardless of age, race, or economic status. More Americans under the age of 45 die from accidents such as motor vehicle crashes or falls than from any other cause [16]. The leading cause of accident-related death varies across an individual’s lifespan. **Appendix F** lists the ten leading causes of injury-related deaths by age group.

Death rates due to accidents in Montgomery County have increased slightly over the years. The age-adjusted death rate from accidents in Montgomery County is 18.1 per 100,000 people, which is less than state and national rates. The majority of deaths due to unintentional injuries occur in the male population and the older adult population [8]. See **Figure 21 & 22**.

Figure 21. County Trend Comparison, 2008-16

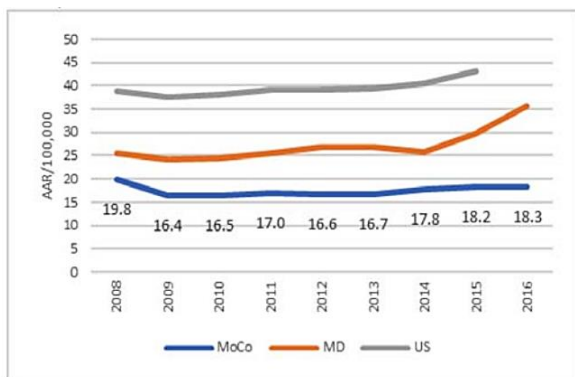
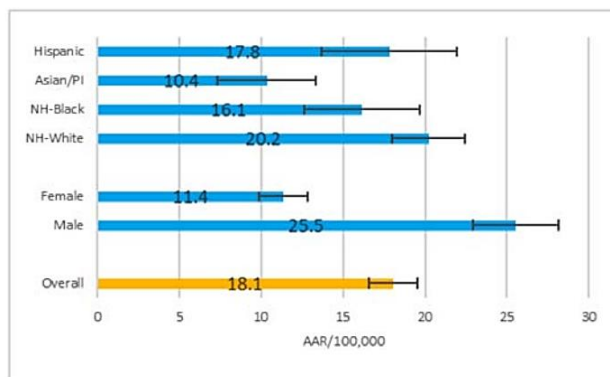


Figure 22. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Figures adapted from Health in Montgomery County, 2008-2016, Report [8]

In 2015, more than 35,000 people died from motor vehicle crashes. In the last ten years, poisonings in the form of opioid overdoses have quadrupled, with more than 15,000 people dying annually from prescription opioid overdoses. Each year, 2.8 million older adults are treated in emergency departments for fall-related injuries. Therefore, it is not surprising to find that falls,

motor vehicle accidents and poisonings are the three leading causes of injury-related death in Maryland (See Table 4, Pg. 20) [17].

According to the Centers for Disease Control & Prevention, falls are the major cause of preventable death among older adults. It has been reported that more than one out of four

adults aged 65 and older fall each year. One out of five falls can cause a serious injury, such as a broken hip or head injury. After a fall, an individual is twice as likely to fall again. Recovery from a fractured hip is not easy and can make it difficult for people to live independently and perform everyday chores.

As the U.S. population continues to age, the number of hip fractures is expected to increase

[18]. Falls are also the leading cause of work-related deaths, especially among construction workers [8]. Healthy People is the nation’s framework for improving the health of all Americans. The Healthy People 2020 goal is to reduce fall death rates to 7 or less. The age-adjusted death rate due to falls in Montgomery County is 6.5 deaths per 100,000 people (2014-2016), which is lower than the state rate of 9.6 deaths per 100,000 people [19].

Table 4. Leading Causes of Death Due to Unintentional Injuries in Maryland

Rank	Cause	Deaths	Rate
5	All unintentional injuries	1,674	28.0
1	Falls	572	9.6
2	Motor vehicle	475	7.9
3	Poisoning	281	4.7
4	Choking	65	1.1
5	Drowning	57	1.0

Source: Injury Facts- National Safety Council, 2017 Edition [17]

MORTALITY RATE TRENDS FOR CHRONIC LOWER RESPIRATORY DISEASE,

Chronic Lower Respiratory Diseases (CLRD) refers to a group of conditions that affect the lungs, such as asthma, emphysema, bronchitis and chronic respiratory pulmonary disease. In Montgomery County, CLRD mortality rates have been on the decline. The age-adjusted death rate for CLRD is 15.5 per 100,000 (2008-2016). When compared to other groups, the Hispanic and Asian population have the lowest rates of CLRD. **See Figure 23 & 24, Pg. 21.**

Chronic obstructive pulmonary disease (COPD), the deadliest form of CLRD, makes it difficult for an individual to breathe. Cigarette smoking has been identified as the leading cause of COPD, but other factors such as air pollutants, genetics, and

respiratory infections can contribute to its development. The average annual age-adjusted hospitalization rate due to COPD is 9.1 per 100,000 people in Montgomery County (2009-2011). COPD is more common among the 65+ population.

The age-adjusted ER and hospitalization rates due to asthma are 34 and 8.4 per 10,000 people, respectively (2009-2011). Children under 5 years of age and adults 65+ are frequently hospitalized due to asthma [8].

Figure 23. County Trend Comparison, 2008-16

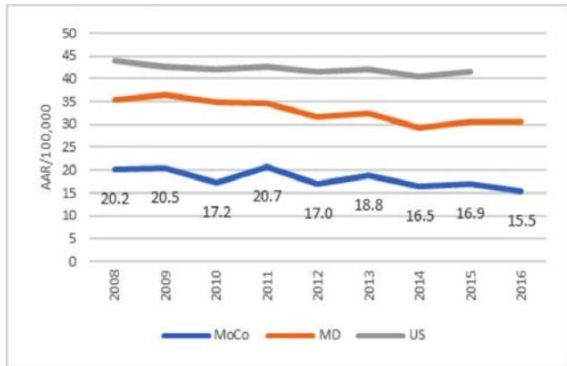
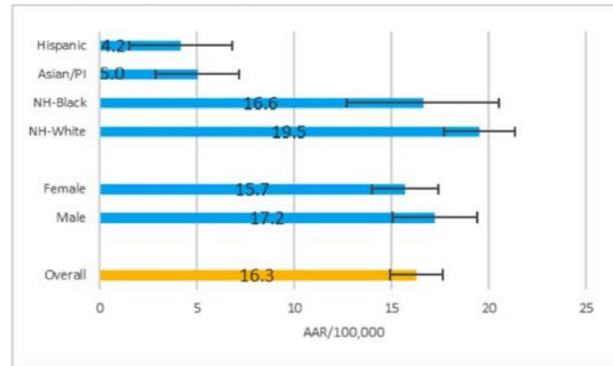


Figure 24. Rate by Sex & Race/Ethnicity, 2014-2016



Source: Adapted from Health in Montgomery County, 2008-2016, Report [8]



Leading Cause of Hospitalization in Suburban’s CBSA

Hospitalization data provides insight on the causes of morbidity present in the population. At the County level, the leading cause of hospitalizations are injuries, heart disease, mental health, cerebrovascular disease, diabetes, cancer, CLRD, substance abuse, and suicide [8].

All Patients Refined Diagnosis Related Groups (APR-DRG) is a classification system that categorizes patients according to their reason for hospital admission, severity of illness and risk of mortality. It helps to monitor the quality of care and the utilization of services in a hospital setting [20]. Based on APR-DRG, Suburban Hospital’s top causes for hospitalizations in the past two years are reported in **Table 5 (See Pg. 22)**.

Suburban Hospital is a Certified Stroke Center and Level II Trauma Center, as well as a Center of Excellence for cardiac care, orthopedics and joint replacement surgery, neurosciences and oncology. The leading causes of hospitalization at Suburban Hospital in 2017-18 were knee joint replacement (7%), hip joint replacement (6%), septicemia and disseminated infection (6%), major depressive disorders (4%), heart failure

(3%), kidney and urinary tract infections (2%), bipolar disorders (2%), pneumonia (2%), cerebral vascular accident (stroke) (2%), and alcohol abuse and dependence (2%). These conditions can be group into four major categories: orthopedic, heart disease, cerebrovascular disease, mental/behavioral health and infections.

The prevalence of obesity, injuries, and the aging population, coupled with higher rates of diagnosis and treatment of advanced arthritis, are growing the demand for improved mobility and quality-of-life through knee and hip replacements procedures [23]. It is estimated over 1 million hip and knee replacement procedures are performed each year in the United States. This number is projected to increase exponentially by 2030. The number of total knee replacements will grow by more than 600% compared to 2005, while total hip replacements are expected to increase by nearly 200 % [24].

Septicemia or sepsis is the body’s response to infection. Sepsis is a serious and relatively common disorder and represents the leading

cause of death in non-coronary intensive care units worldwide [1]. Sepsis and septic shock can result from an infection anywhere in the body, such as pneumonia, influenza, or urinary tract infections (UTIs).

According to the Sepsis Alliance, worldwide, one-third of people who develop sepsis die. Many who do survive are left with life-changing effects, such as post-traumatic stress disorder (PTSD), chronic pain and fatigue, organ dysfunction and/or amputations [26]. Although sepsis does not discriminate, those at higher risk include people with chronic conditions (such as diabetes and cancer), compromised immune systems, and pneumonia [27].

Older adults are particularly vulnerable because they often delay treatment and do not recognize the symptoms of infections. For example, UTIs are treated quickly and effectively with antibiotics. However, over

50% of sepsis cases among older adults are caused by a UTI because the infections go undiagnosed [28].

Each year, millions of Americans are affected by behavioral health conditions [29]. One in five adults experience a behavioral health issue, and one in ten young people experience a period of major depression [29]. Individuals with behavioral health disorders are more likely to utilize hospitals and emergency rooms, contributing to a rising cost of care [30].

According to a report by the American Hospital Association, individuals living with serious behavioral health illness are at increased risk of other co-morbidities such as asthma, diabetes, heart disease, high blood pressure, and stroke. Furthermore, those with chronic medical conditions (e.g., asthma or diabetes) also report higher rates of substance use disorders and “serious psychological distress” [30].

Table 5. Top APR-DRG Inpatient Diagnosis at Suburban Hospital

APR-DRG Inpatient Diagnosis Descriptions	2017	2018	Grand Total
Knee Joint Replacement	1108	948	2056
Hip Joint Replacement	793	836	1629
Septicemia & Disseminated Infections	825	782	1607
Major Depressive Disorders & Other/Unspecified Psychoses	542	689	1231
Heart Failure	447	438	885
Kidney & Urinary Tract Infections	324	318	642
Bipolar Disorders	277	345	622
Other Pneumonia	291	298	589
Cva & Precerebral Occlusion W Infarct	273	312	585
Alcohol Abuse & Dependence	239	324	563

Source: Suburban Hospital, EPIC 2018. Number of cases 2017-2018.



Leading Cause of Emergency Room (ER) Visit in Montgomery County

Emergency Room (ER) utilization refers to how often a population uses the ER for a particular reason. ER visits can be attributed to avoidable or non-avoidable conditions. Avoidable visits are those that could have been treated solely by a primary care provider (PCP) or medical home. ER utilization rates are presented below for Montgomery County. The findings in **Table 6** are

consistent with the causes of hospitalization at the County-level. Out of the eight conditions listed, mental and behavioral health conditions (substance abuse and suicide) are ranked several times on the list. **Appendix G** provides a list of behavioral health conditions most commonly diagnosed at Suburban Hospital’s Emergency Room.

Table 6. Leading Cause of ER Visit by Year, Montgomery County, 2014-16

	2014		2015		2016		2014-16	
	%	Rank	%	Rank	%	Rank	%	Rank
Injuries	28.4	1	25.1	1	22.7	1	25.4	1
Heart Disease	7.0	2	8.5	2	9.3	2	8.2	2
Mental Health	4.8	3	5.5	3	6.9	3	5.8	3
Chronic Lower Respiratory Disease	3.6	4	3.8	4	4.0	4	3.8	4
Substance Abuse	2.0	5	1.9	6	1.7	6	1.8	5
Diabetes Mellitus	1.8	6	2.1	5	2.2	5	2.0	6
Cerebrovascular Disease	0.3	7	0.3	7	0.2	7	0.3	7
Suicide	0.2	8	0.2	8	0.2	7	0.2	8
All Other Causes	51.9		52.6		52.8		52.4	

Source: Adapted from Health in Montgomery County, 2008-2016, Report

B. SOCIAL DETERMINANTS OF HEALTH

Social determinants of health (SDoH) is defined by the World Health Organization (WHO) as “the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels” [21].

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute designed a model to illustrate the many factors that influence health outcomes. The model is depicted in **Figure 25, Pg 24**.

Clinical/medical care contributes only 20% of the health outcomes of a population. The remaining 80% are modifiable factors (health behaviors, socioeconomic and environmental factors), referred to as SDoH. Thirty indicators are utilized to assess the impact of SDoH factors on the overall health of the community (**See Table 7, Pg. 25**).

The health status of our nation and the high expenditure of our health care system are driving providers and legislators to develop multi-solution approaches to address the

complex health problems facing our society. This matter requires numerous sectors committing to a common agenda for solving a specific community-wide problem. The Triple Aim is a model developed by the Institute for Healthcare Improvement (IHI) to optimize health system performance by integrating health care and population health.

The goals of the Triple Aim module are to simultaneously improve the patient care experience and overall health of populations while reducing the per capita cost of health care (Figure 26). Suburban Hospital recognizes that strategic application of the three Triple Aim goals across the underlying factors that determine health outcomes can improve the health and well-being of Suburban Hospital CBSA residents, reduce inequity, and minimize costs [22].

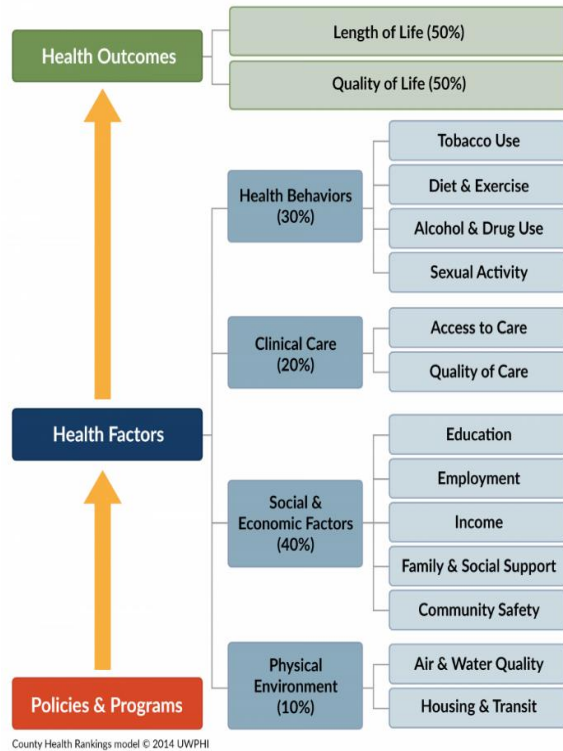


Figure 25. County Health Ranking Model

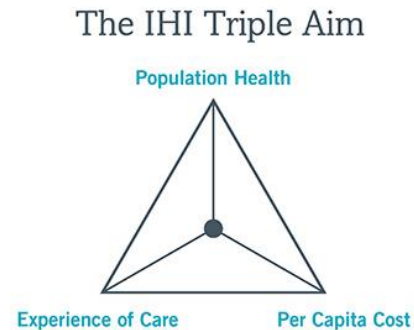


Figure 26. Adapted from IHI



County Health Ranking: Montgomery County Health Factors

The County Health Rankings, supported by The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, is a report that shows location makes a difference in how well and how long a person lives. At the county level, the health status of a

particular community can be measured by evaluating 30 established indicators (outlined in Table 7, Pg. 25). The results of these indicators places Montgomery County as the 9th healthiest county (among 95 counties listed) in the nation [2].

Table 7. Montgomery County Ranking, 2018

Health Factor (weight %)	Focus Area (weight %)	Indicator	Montgomery County	Top U.S. Performers
Health Behaviors (30%)	Tobacco Use (10%)	Adult smoking % of adults who are current smokers	7%	14%
		Adult obesity % of adults with Body Mass Index of 30 or more	21%	26%
	Diet and Physical Activity (10%)	Food Environment Index Scale 0-10, 0 is worst, 10 is best	9.5	8.6
		Physical inactivity % adults with no leisure-time physical activity	16%	20%
		Access to exercise opportunities % with access to locations for physical activity	100%	91%
	Alcohol and Drug Use (5%)	Excessive Drinking % of adults reporting binge drinking or heavy drinking	15%	13%
		Alcohol-impaired driving deaths % of driving deaths with alcohol involvement	26%	13%
	Sexual Activity (5%)	Sexually transmitted infections Chlamydia rate per 100,000 population	292.6	145.1
		Teen births Birth rate per 1,000 female population, ages 15-19 years	13	15
	Clinical Care (20%)	Access to Care (10%)	Uninsured % population under age 65 without health insurance	8%
Primary care physicians Ratio of population to primary care physicians			730:1	1,030:1
Dentists Ratio of population to dentists			830:1	1280:1
Mental health providers Ratio of population to mental health providers			360:1	330:1
Quality of Care (10%)		Preventable Hospital Stays # of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	29	35
		Diabetes Monitoring % of Medicare enrollees with diabetes ages 65-75 years who receive HbA1c	87%	91%

Social and Economic Environment (40%)		Mammography screening % of female Medicare enrollees ages 67-69 who receive mammography screening	62%	71%	
	Education (10%)	High school graduation % of 9 th grade cohort that graduates in 4 years	89%	95%	
		Some college % of people 25-44 years with some post-secondary education	77%	72%	
	Employment (10%)	Unemployment % of people 16 and older unemployed and seeking work	3.3%	3.2%	
	Income (10%)	Children in poverty % of children under age 18 in poverty	9%	12%	
		Income inequality Ratio of income at the 80 th and 20 th percentile	4.3	3.7	
	Family and Social Support (5%)	Children in single-parent households % of households headed by a single parent	25%	20%	
		Social associations # of membership associations per 10,000 population	9.0	22.1	
	Community Safety (5%)	Violent crime # reported violent crimes per 100,000 population	177	62	
		Injury deaths # deaths due to injury per 100,000 people	33	55	
	Physical Environment (10%)	Air and Water Quality (5%)	Air pollution – particulate matter Average daily density of fine particulate matter (PM2.5)	10.9	6.7
			Drinking water violations Presence of health-related drinking water violations	No	-
Housing and Transit (5%)		Severe housing problems % of households with overcrowding, high housing costs, lack of kitchen, or a lack of plumbing	17%	9%	
		Driving alone to work % of workforce who drive alone to work	65%	72%	
		Long commute, driving alone % of workers who drive alone with a long commute	53%	15%	

Data source. University of Wisconsin Population Health Institute. County Health Rankings 2018.

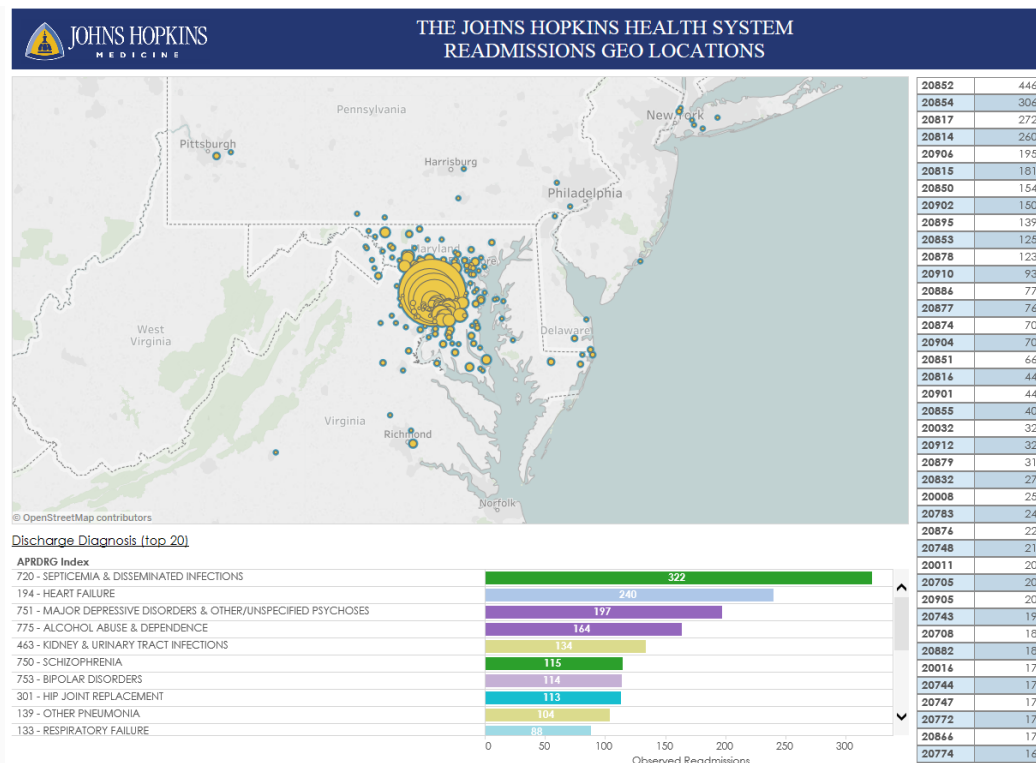


Suburban Hospital Patient Re-Admission: Diagnosis & Location

For the 2019 assessment, Suburban Hospital incorporated readmission data to determine drivers of health in our immediate community. Readmission data provides information on causes for unplanned readmission to an acute care hospital up to 30 days after discharge from hospitalization. Readmissions may or may not be related to the original reason for admission. While some readmissions are not preventable, addressing readmissions can help improve the health of populations and reduce cost.

The top ten causes of readmission at Suburban Hospital can be grouped into three categories: infections, heart failure and behavioral/mental health (See Figure 27). Residents originating from zip codes 20814, 20817, 20852, and have the highest rate of readmissions. These zip codes are also part of Suburban’s Community Benefit Service Area (CBSA). Readmission data for the 14 zip codes in Suburban’s CBSA is provided in Appendix H.

Figure 27. Suburban Hospital Top Causes of Re-Admission, 2016-2018



C. HEALTH CARE FACILITIES AND RESOURCES IN OUR COMMUNITY

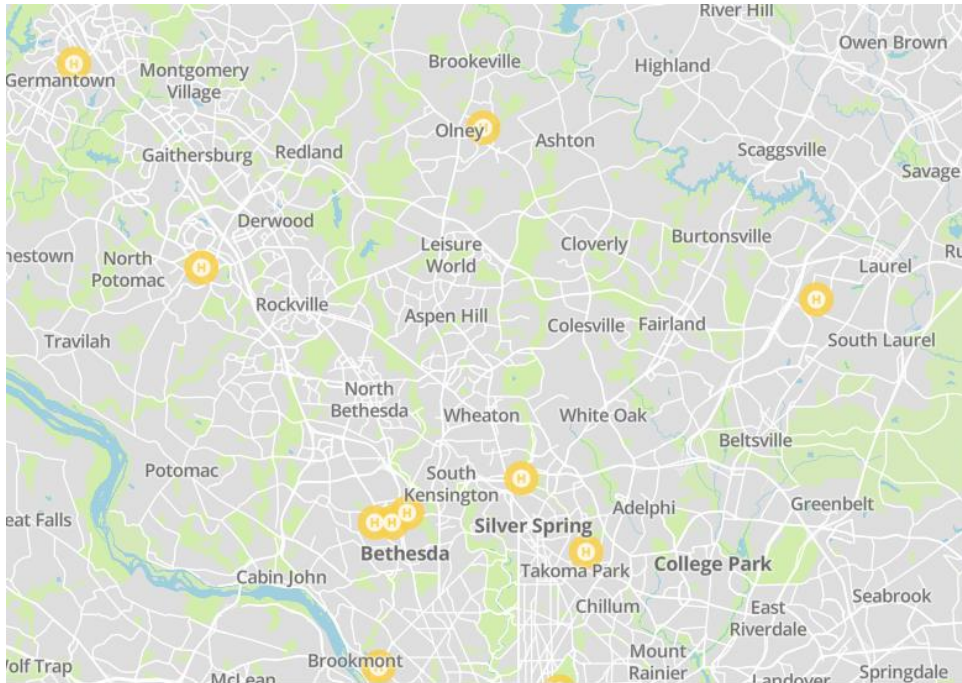
There are multiple health care facilities and resources within Montgomery County available to respond to community health needs (Figure

28, Pg. 28). Six hospitals and affiliated emergency departments serve the critically ill. Dedicated mental and behavioral health facilities

provide psychiatric care. Three Federally Qualified Health Centers (FQHC) and eight Montgomery County Cares safety-net clinic

programs provide outpatient clinic and preventive services to uninsured and under-insured individuals.

Figure 28. Existing Health Care Facilities in Montgomery County



In Montgomery County, community health needs are also addressed by resources outside of the traditional health care setting. Available resources include individual programs and initiatives by faith-based, non-profit, academic, and/or government organizations. Examples of such resources include:

- Montgomery County’s telephone number for accessing government programs and services
- Dental Services/HIV Dental Program

- Services for Special Populations (i.e., Refugee and Asylee Health Program)
- Minority Health Initiatives/Programs
- Pathways to Services, which assists children with emotional and/or behavioral needs (CC)

For a comprehensive list, please refer to Healthy Montgomery for the County-wide [health needs assessment report](#).

D. IDENTIFIED DATA GAPS/LIMITATIONS

The Healthy Montgomery website was utilized as the primary resource for gathering quantitative data for Montgomery County residents. Where

appropriate, census and state databases were also accessed to supplement needed data for the health indicators mentioned in this report.

Despite the search for various resources, there were specific limitations and availability of information on particular racial/ethnic groups. Currently, baseline data for variables aimed to measure social determinants of health are not

all-inclusive, limiting group comparison analysis. Furthermore, data at the local level is needed to be able to assess and evaluate health outcomes for specific communities within Suburban's CBSA zip codes.

7 PHASE I: STAKEHOLDER COLLABORATION & ENGAGEMENT

A. HEALTHY MONTGOMERY

Healthy Montgomery, launched in June 2009 by the Montgomery County Department of Health and Human Services, is Montgomery County's formal Community Health Improvement Process (CHIP). Healthy Montgomery aims to improve access to health and social services, achieve health equity, and support optimal health and well-being for Montgomery County residents through a dynamic, ongoing process that allows stakeholders to monitor and act on conditions affecting the health and well-being of its residents.

Healthy Montgomery is governed by a Steering Committee composed of members from the public health system, such as county government and public health officials, advocacy groups, academic institutions, minority health programs/initiatives, and members of health care provider organizations.

Suburban Hospital is a founding and permanent steering committee member, providing recommendations and technical expertise to help advance periodic county-wide needs assessments, identify and prioritize health needs, leverage population-based data and information, and research and adopt best-practice strategies for health improvement. Since 2010, Suburban Hospital has contributed \$25,000 annually (or \$225,000 to date) to support an ongoing health improvement process

and infrastructure. A list of Healthy Montgomery Steering Committee Members is provided in **Appendix I**.

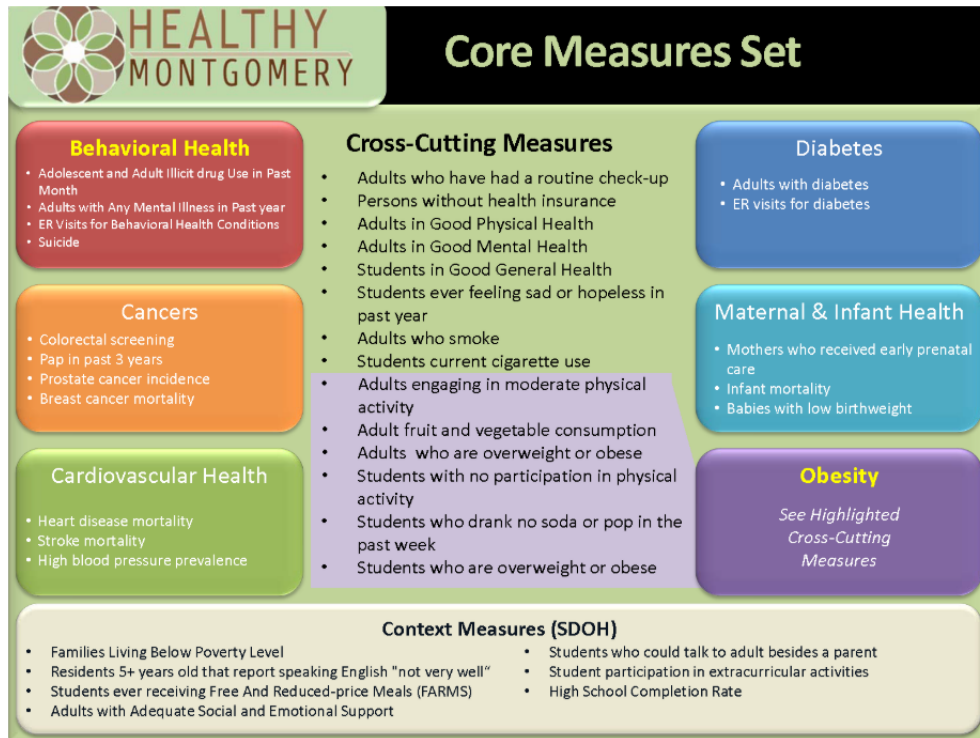
Over the years, the Healthy Montgomery collaborative, through a community and consensus-driven approach, has identified five key health priority areas for Montgomery County residents: obesity, behavioral health, diabetes, cardiovascular disease, cancer and maternal and child health.

By working directly with Healthy Montgomery, Suburban Hospital can (1) align county-wide health priorities and strategies with those identified for Suburban's CBSA community and (2) monitor progress aimed to achieve health equity for all residents.

In September 2014, the Healthy Montgomery Steering Committee adopted a set of core measures that are designed to evaluate outcomes for health and well-being (**See Figure 29**).

To see all 37 core measures in detail, please visit <http://www.healthymontgomery.org>. This online resource provides detailed documentation on each measure as well as the most recent data for subgroup comparisons and benchmarking to state and federal efforts (MD SHIP, HP2020).

Figure 29. The Healthy Montgomery Core Measures [22]



B. COMMUNITY HEALTH IMPROVEMENT COUNCIL

Suburban Hospital’s Community Health Improvement Advisory Council (CHIAC) is comprised of a diverse group of local businesses, not-for-profit executives and community advocacy leaders. Chartered by the Hospital’s Board of Trustees and chaired by a trustee, the Advisory Council exists to provide expert recommendations on the health needs of Suburban’s community. In addition to helping

identify and prioritize community needs, the Council guides and participates in the planning, development and implementation of programs and activities for the improvement of health in the community served by Suburban Hospital. A comprehensive list of Council members who guided the development of the 2019 CHNA is available in **Appendix J**.

C. COMMUNITY INPUT

While secondary data (from sources such as Healthy Montgomery, County Health Rankings, Warehouse Indicators, Data Montgomery, and the MD Vital Statistics Report) provide a macroscopic view of the causes of morbidity and mortality in populations, Suburban Hospital

prioritized the need to understand the unmet health needs of our community. This process included the development and distribution of a community health survey tool that allowed the collection of direct input from community

members (See **Appendix K: Community Health Survey Tool**).

The objective of the survey was to gather community input and perspectives on the following topics:

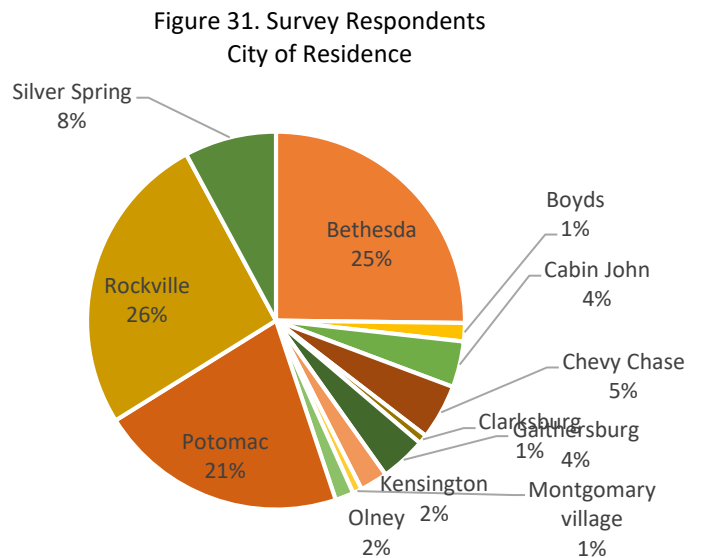
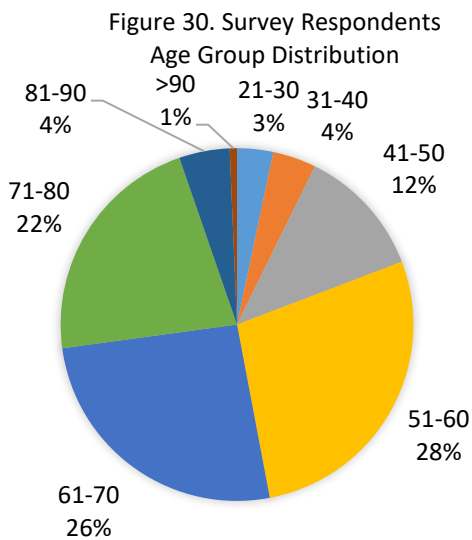
- Biggest health issues or concerns in the community

- Trends relative to demographics and community health status
- Perceived health risks and benefits
- Wellness services lacking in the community
- Barriers and services related to chronic health conditions
- Recommendations for improving health prevention programs in the community

Survey Data Collection

The survey population was sampled randomly, which afforded the best opportunity to gain valuable opinions of residents living in our community. The survey was distributed jointly by Suburban Hospital and a local medical practice. A total of 151 surveys were collected and utilized for data analysis. While the County-wide health needs assessment process “Healthy Montgomery” provides a picture of the health status of Montgomery County residents at-large, the findings from the survey results served as an

additional primary source of information for behaviors, needs, and opinions about various health and community issues directly affecting Suburban Hospital’s CBSAs. The age distribution of survey respondents varied, but the majority (81%) were over the age of 50 and mostly female (55%) (**See Figure 30**). Survey participants reported living primarily in Bethesda (20817 & 20814), Potomac (20854), and Rockville (20850, 20851, 20852 & 20853) (**See Figure 31**).





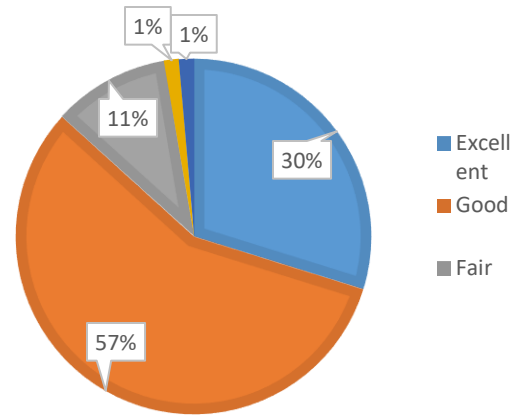
Health Survey Results

The survey results serve as an information guide for the behaviors, needs, and opinions about various issues directly affecting residents in our CBSA zip codes. The complete survey findings are available in **Appendix L**.

Self-Reported Health Status. Self-reported health status is a strong prognostic indicator for subsequent mortality, and in particular for responses that fall in the fair and/or poor category. A significant number of surveyed individuals (87%) reported to either having excellent (30%) or good (57%) health status. A small percentage (4%) reported having fair or poor health status (See **Figure 32**). At the County level, 89.7% of the adult population reported their status as good or better.

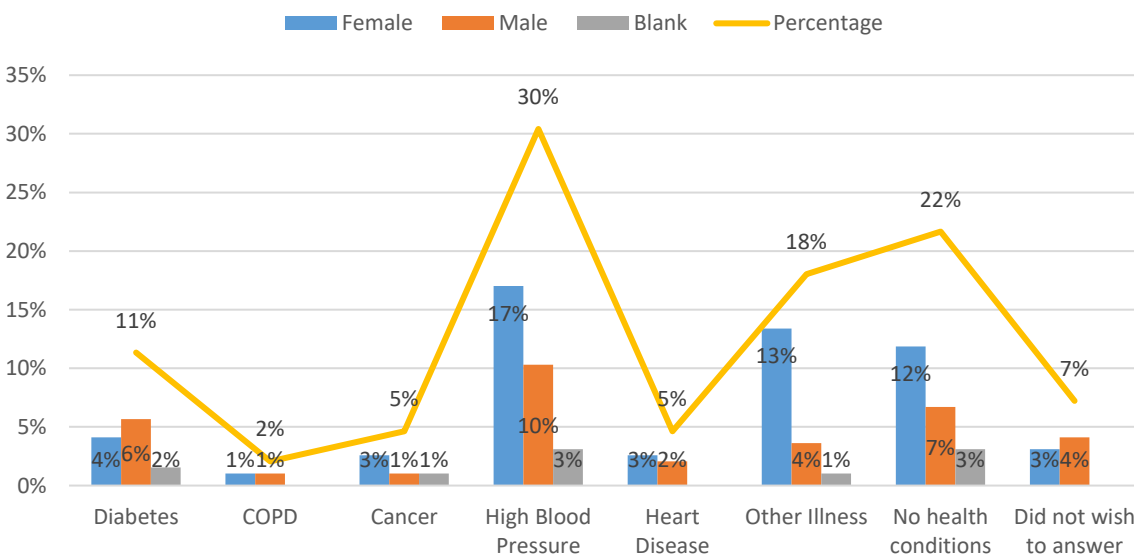
Chronic Disease Prevalence. While 22% of respondents (n=151) reported the absence of any health condition, 63% reported living with at least one chronic condition, and 35% reported living with a least two co-morbidities. The most

Figure 32. Participants Reported Health Status (%)



common diagnoses present in the population were hypertension (30%) and diabetes (11%). Other conditions reported included high cholesterol (2.6%), asthma (3.3%), and arthritis (6.6%). See **Figure 33**.

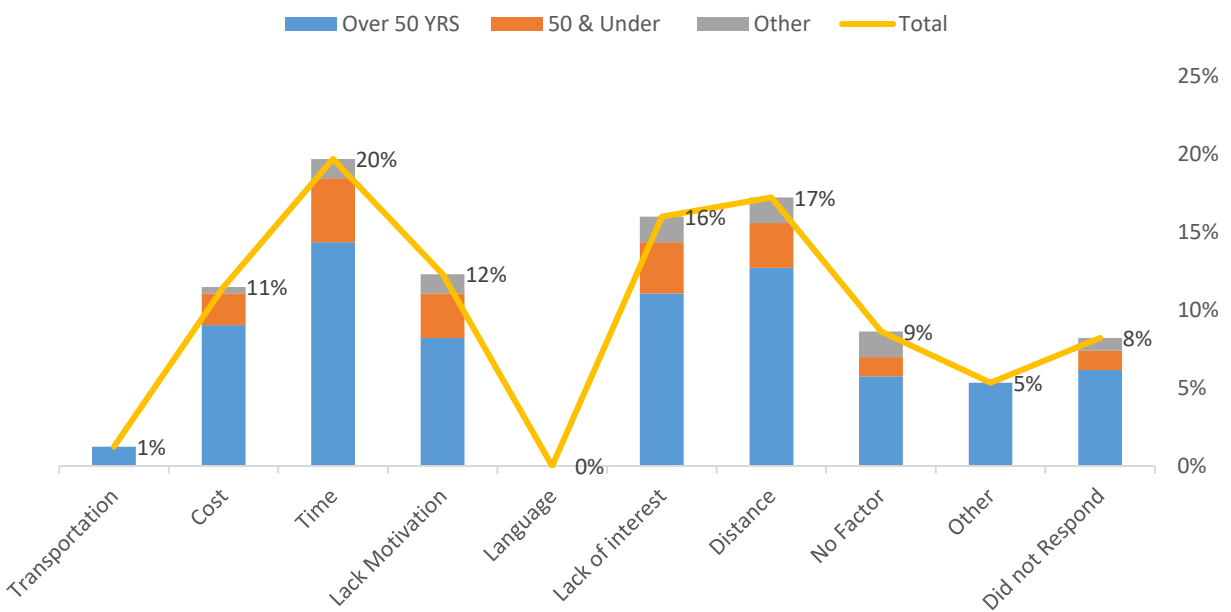
Figure 33. Prevalence of Chronic Conditions



Health Barriers. Respondents were asked to share the barriers keeping them from accessing health education/prevention programs. Participants were given nine different categories to choose from plus an option to write an open response. **Figure 34** presents the top barriers to health program participation, as reported by

respondents. The top three factors preventing individuals from participating in a wellness program include time, distance and lack of interest. Other factors included work schedules and family obligations. However, 9% of participants stated they had no barriers preventing them from participating.

Figure 34. Barriers To Program Participation



Topics of Interest. Participants were provided with a list of wellness topics to assess their interest level. Whereas 42% reported not likely to participate in a wellness program, the remaining participants expressed interest in weight management (24.5%), heart health

(16.5%), diabetes self-management (9%), chronic disease self-management (9%), pre-diabetes (7%), and smoking cessation (1%). In addition, 11% listed exercise, pain management, depression, bone health and asthma as other areas of interest.

8 PHASE II: PRIORITIZATION OF HEALTH NEEDS

A. IDENTIFIED HEALTH NEEDS

The datasets presented in Phase I of the assessment were reviewed and used to measure the magnitude of the top health problems in Montgomery County (e.g., causes of morbidity and mortality) and Suburban’s community. The

outcome is a comprehensive list, comprised of 14 health conditions, which served as the basis for the priority setting process. The list of identified health needs is presented in **Table 8**.

Table 8. Identified Health Needs

Leading Causes of Mortality in Montgomery County	Top Causes of Hospitalization & Emergency Room Utilization in Montgomery County	Top Causes of Hospitalization at Suburban Hospital
Cardiovascular diseases	Cardiovascular diseases	Cardiovascular diseases
Cancer	Cancer	
Cerebrovascular	Cerebrovascular	Cerebrovascular
Diabetes mellitus	Diabetes mellitus	
Chronic respiratory diseases	Chronic respiratory diseases	
Accidents (unintentional injuries)	Accidents (unintentional injuries)	
	Mental Health	Mental Health (Bipolar)
	Substance Abuse	Substance Abuse (Alcohol Abuse)
	Suicide	Suicide (Major Depressive Disorder)
		Orthopedics
Influenza & Pneumonia		Influenza & Pneumonia
Septicemia		Septicemia
Nephritis		Nephritis (Kidney & UTIs)
Alzheimer’s Disease		

In Phase II of the assessment, dialogue with key informants was facilitated to share findings from the multiple datasets and to solicit and align recommendations.

Suburban Hospital convened a CHNA Ad Hoc Committee, comprised of key stakeholders from

Suburban Hospital’s Health Improvement Advisory Council, health care consumer advocates, faith-based and community-based organizations, Montgomery County, and a local health care provider. The Ad Hoc Committee voiced insight into the needs of the community and analyzed needs assessment data gaps. The

Committee also played a critical role in the development of the prioritization process. See **Appendix M** for a list of Ad Hoc Committee Members.

In addition to the expertise contributed by the Committee, Suburban Hospital engaged

conversations with quality health experts from Johns Hopkins Health System, Dr. Eric Dobkin, Vice President of Medical Affairs and Ms. Eileen Pummer, Senior Director of Quality & Compliance, for their first-hand knowledge of the major health concerns, barriers and needs for Suburban’s patient population.

B. HEALTH PRIORITY SETTING

Suburban Hospital’s Community Health and Wellness (CHW) Division served as a key player in shaping the CHNA process by integrating public health knowledge, principles, and expertise. The CHW Division acted as a public health resource and guide, due in part to the educational background of the staff, strong relationships with the community and firsthand knowledge of major health concerns, barriers and needs. Furthermore, the Division works collaboratively with the Montgomery County Health and Human Services Department and other Montgomery County Hospitals, coalitions, community partners and leaders to ensure common goals are established to best leverage and provide resources to our county’s most vulnerable residents.

Suburban Hospital’s priority setting process consisted of comparing the health needs identified through data research and aligning them with *Healthy Montgomery’s* six county-wide health priorities. This approach fostered a

meaningful and comprehensive understanding of the needs of the community.

The prioritization process also included extensive discussion with the CHNA Ad Hoc Committee members and Quality Health Experts to help rank the critical health issues facing Suburban’s community as identified in **Table 8**.

Through a voting process, the CHNA Ad Hoc Committee selected eight top health issues from the 14 total conditions presented in table 8. Suburban Hospital Quality Health Experts panel identified six. **Table 9** provides a summary of the health needs identified through our research and community input (see page 36). The information on this table helps to distinguish where findings and recommendation overlap and align with the County’s established health priorities and health outcome findings. The data that materialized from this analysis helped support the prioritization process that followed.

Table 9. Alignment of Health Priorities

	Leading Causes of Mortality in Montgomery County	Top Causes of Hospitalizations/ ED Utilization in Montgomery County	Top Causes of Hospitalization/ Readmission at Suburban Hospital	Healthy Montgomery Health Priorities	CHNA Ad Hoc Committee Recommendation	Quality Health Experts Recommendation
Heart disease	X	X	X	X	X	X
Cancer	X	X		X	X	X
Diabetes Mellitus	X	X		X	X	
Chronic lower respiratory diseases	X	X				
Accidents (unintentional injuries)	X	X				X
Obesity				X	X	
Behavioral/Mental Health		X	X	X	X	X
Maternal & Infant Health				X		
Infections (i.e. septicemia)	X		X		X	X
Orthopedics			X			

The CHW Division integrated the identified health needs into Suburban’s formula for priority setting (See Figure 36). The health needs prioritization process consists of aligning the identified community needs with Suburban’s strategic priorities, integrating the hospital’s areas of expertise into the decision making, and applying a collective impact approach to

strengthening our efficiency and achieving purposeful outcomes.

The priority setting formula helps to build a strong connection and continuum of care to facilitate health equity and optimal health for our community.

Figure 36. Priority Setting Process



C. HEALTH PRIORITY VALIDATION AND CONSENSUS

The structured priority-setting process, led by numerous discussions based on recent health data, guided community stakeholders to the identification of six health priorities for measurement and intervention via our 2019 implementation plan. Initially identified during the first iteration of this assessment in 2013, the data and recommendations validate the following four chronic conditions as continued health priorities for Suburban’s community:

- Cardiovascular Disease
- Cancer
- Diabetes
- Behavioral Health

These four health priorities overlap or align with national, state, and local priorities (**See Table 10**). This relationship affords Suburban Hospital the ability to align its community health improvement efforts to existing actions to

decrease health inequities, improve access and reduce unhealthy behaviors.

In addition to the four priorities, Suburban identified two focus areas where an absence of coordinated efforts and initiatives currently exist. These two focus areas, which have been labeled as emerging priorities for our community, include unintentional injuries and infections.

As outlined in this assessment, there is sufficient evidence to suggest the need to advance preventive approaches to minimize their future toll in our health care system and support optimal quality of life in our community.

The 2019 implementation plan will describe Suburban’s approach for addressing and evaluating these six health priorities.

Table 10. Comparison of Federal, State, and Local Health Priorities

Healthy People 2020: Leading Health Indicators	Maryland State Health Improvement Plan 2017 (SHIP)	Healthy Montgomery 2016
Mental Health, Substance Abuse, & Tobacco	Healthy Communities	Behavioral Health
Access to Health Services, Clinical Preventive Services	Access to Health Care	Cancer
Nutrition, Physical Activity, and Obesity	Qualitative Preventive Care	Obesity
Maternal, Infant, and Child Health	Healthy Beginnings	Maternal and Child Health
Social Determinants	Healthy Living	Diabetes
Environmental Quality, Injury & Violence		Cardiovascular Health
Oral Health, Reproductive and Sexual Health		

Source: US Department of Health and Human Services, MD Department of Health and Mental Hygiene, and Healthy Montgomery, 2019

D. UNADDRESSED IDENTIFIED NEEDS

Suburban Hospital recognizes the importance of supporting needs outside of the five identified health priorities through the innovative leveraging of resources with community partners to improve health outcomes for Montgomery County residents. As such, Suburban Hospital will continue to work directly - contingent upon resource availability - with several community centers, organizations, institutes, and corporations, including, but not limited to AARP, A Wider Circle, Alpha Phi Alpha Fraternity, American Heart Association, American Red Cross, and Bethesda Cares to support unaddressed needs and social determinants of health affecting vulnerable populations.

The Healthy Montgomery Steering Committee established six official health priorities to be tracked, measured, and evaluated based on health inequities, lack of access, and unhealthy behaviors over the next three years. One of these health priorities is Maternal and Child Health. Suburban Hospital is not in a position to affect all of the changes required to address this health priority given that the hospital does not have an obstetrics designation. The reason for not seeking this designation is because there are several other community hospitals within 5-10

miles of our Bethesda location that have an obstetrics program.

While Suburban Hospital may not be able to address this health priority directly, the hospital will continue indirectly support Maternal and Child Health initiatives by providing funding and program support to organizations that promote the health and well-being of children and their families. For example, Suburban Hospital supports the YMCA Youth and Family Services by hosting parenting seminars at the hospital twice a year. Proceeds from the seminars go directly to the YMCA and support its programming for local families.

In addition, Suburban Hospital provides financial support to safety net clinics in Montgomery County that treat patients requiring obstetric or pediatric care. The Hospital is also the official health sponsor of Girls on the Run Montgomery County. Girls On the Run is an organization dedicated to inspiring girls to be healthy and confident through running and an experience-based curriculum. The Hospital provides discounted CPR and First Aid training classes to program coaches, purchases shoes and healthy snacks for students from Title I schools, and provides health tips on Girls on the Run Montgomery County website.

9 CONCLUSION

Suburban Hospital is committed to and invested in caring for the community it serves. Suburban has a long history of dedicated health initiatives addressing the needs of vulnerable populations including the under- and uninsured, low-income,

racially and ethnically diverse, underserved seniors and at-risk youth. In collaboration with local community stakeholders and other aligned organizations with a shared vision, Suburban has always strived to meet the needs and demands

of those who reside in Montgomery County and beyond. Along with the establishment of Healthy Montgomery's Community Health Improvement Process and specific supporting data collected from Suburban Hospital's community health needs assessment, the process by which the hospital prioritizes its efforts are more specialized, focused and deliberate to allow it to address the six identified health priorities: *diabetes, cardiovascular disease, cancer, behavioral health, infections and unintentional injuries.*

Furthermore, the CHNA process has afforded Suburban Hospital the opportunity to polish the community health improvement lens, which will guide the organization to a specific focus on identifying barriers to accessing health care,

addressing community perceptions of major health concerns, evaluating demographic, economic and health care provider trends, addressing lack of available health services and leveraging resources to improve access to care and overall quality of life.

Suburban Hospital and its partners will continue to work diligently over the next three years to ensure that the valuable information attained from the CHNA is an indispensable tool to measure and evaluate how established health targets and goals are achieved. The health implementation plan will continue to be an evolving hospital strategy and process to produce the best care and services for optimal health and quality of life for Montgomery County residents.

10 APPENDICES

Appendix A. Suburban Hospital Board of Trustees 2018-2019

Name	Title, Company
Sudeep Anand, Ph.D.	Treasurer, Smithsonian Institution (Retired)
Mary Ellen Beliveau	CEO, Knowledge to Practice
Brian Winston Cobb	Chief Technology Officer, Brown Advisory
Linda Courie	Senior Commercial Banker
Jonathan Efron, M.D.	Director, Division of Colorectal Surgery Associate Professor of Surgery, Johns Hopkins Hospital
Lara Eisenberg, M.D.	Community Radiologist
Mark Futrovsky	President, Rolyn Companies, Inc.
Howard Gleckman (Chairman)	Senior Research Associate, The Urban Institute
Maria Gomez	President & CEO, Mary's Center
Ann S. Harrington	Circuit/County Administrative, Law Judge
Norman K. Jenkins	Chairman/CEO, Capstone Development, LLC
Janine Lossing	Consultant
John C. Otsuki	Chief Administrative & Compliance Officer, National Real Estate Advisors
Lily Qi	Office of the County Executive, Montgomery County Government
Jacqueline (Jacky) Schultz	President, Suburban Hospital
William J. Shaw	Chairman, Marriott Vacation Worldwide, Corp.
Alan Sheff, M.D.	President, Potomac Physician Associates
Michael A. Smith, M.D.	Senior Attending Radiologist/ Director Ultrasound, MedStar Medical Group Radiology
Charles Allen Wiebe (Vice Chairman)	BIA Capital Strategies, LLC BIA Digital Partners, LP
Barton Leonard, M.D. (Ex Officio Member)	Medical Staff Chair Emergency Medicine, Suburban Hospital
Kevin Sowers (Ex Officio Member)	President, Johns Hopkins Health System Executive Vice President of Johns Hopkins Medicine

Appendix B. Health Priorities Indicator Progress Since 2016 Assessment



HM= Healthy Montgomery
*Indicator Re-Defined From 2016

HM Core Measure Indicator by Priority Area

Behavioral Health

	State	County	HP 2020 Goal	MD 2017 Goal	Suburban Hospital Initiatives
Adolescent and adult illicit drug use <30 days (2012-14)	9.69	8.91	16.6		– Suburban Hospital provides multiple comprehensive Behavioral Health Services for individuals with emotional problems, mental illness and addictive diseases, as well as some services designed to foster mental health – Suburban Hospital offers support groups to help community members manage mental stress associated with chronic and acute health conditions – Suburban Hospital’s comprehensive community health improvement programs foster social support, particularly among the senior population, due to the continuous encounters with the same population
Adults with any mental illness <1yr (2012-14)	16.8	16.23		3152.6	
ER visits for behavioral health conditions (2017)	4291.5	2312.1			
Suicide (2014-16)	9.2	7.2	10.2		

HM Core Measure Indicator by Priority Area

Cancers

	State	County	HP 2020 Goal	MD 2017 Goal	Suburban Hospital Initiatives
Colorectal Screening* (2016)	73.7	71.3	70.5		– Suburban Hospital has historical partnerships with organizations to deliver free cancer awareness programs, early prevention and service programs for prostate, colorectal, skin, and breast cancer – Suburban’s Cancer Center is affiliated with the Bethesda-based National Cancer Institute, offering patients access to extraordinary treatment options and clinical research trials – Cancer-focused patient navigators and support groups
Pap in past 3 years (2011-15)	71.9	86.7	93		
Prostate cancer incidence (2011-15)	125.7	111.4			
Breast cancer mortality (2011-15)	22.4	18.1	20.7		

HM Core Measure Indicator by Priority Area

Cardiovascular Health

	State	County	HP 2020 Goal	MD 2017 Goal	Suburban Hospital Initiatives
Heart disease mortality (2014-16)	166.9	103.7	152.7	166.3	– Through collaboration with the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health and Johns Hopkins Medicine, Suburban Hospital’s Heart Center offers state-of-the-art cardiac surgery, angioplasty, cardiac diagnostics and rehabilitation – Suburban’s HeartWell Program offers free cardiovascular health education, disease management, and nutrition classes at local senior centers throughout the county – Through partnerships with Montgomery County Departments of Recreation and Senior Services, Suburban Hospital offers fitness exercise programs to the community – Suburban Hospital has a comprehensive health and wellness program available, including blood pressure and cholesterol screenings, educational seminars, and free exercise programs that promote a healthy cardiovascular system – One-of-its kind specialty care clinic held in partnership with Mobile Medical Care, Inc. and the National Institutes of Health, Suburban Hospital offers comprehensive cardiovascular treatment services including diagnostic to open heart-surgery to uninsured Montgomery County residents at low or free cost
Stroke mortality (2015)	40.1	28.1	34.8		
High blood pressure prevalence	33.1%	24.7%	26.9		

HM Core Measure Indicator by Priority Area	State	County	HP 2020 Goal	MD 2017 Goal	Suburban Hospital Initiatives
Diabetes					
Adults with diabetes (2019)	11%	8%	7.2		<ul style="list-style-type: none"> – Suburban Hospital’s one-of-its kind specialty care clinic held in partnership with Mobile Medical Care, Inc. and the National Institutes of Health offers comprehensive endocrine-related treatment at low or free cost to the uninsured population – A long-standing partnership with a safety-net clinic, Proyecto Salud, provides uninsured individuals with quality diabetes management services and outpatient education – Two regional symposia featuring breakthroughs in treatment – Support Group for patients with diabetes – Quarterly pre-diabetes classes – Hospital Glucose Steering Committee & Diabetes Nursing Champions
ER visits for diabetes (2017)	243.7	127.9		186.3	
Age-Adjusted ER Rate due to diabetes (2008-17)*		414.6			

Healthy Montgomery Core Measure Indicator by Priority Area	State	County	HP 2020 Goal	MD 2017 Goal	Suburban Hospital Initiatives
Obesity					
Total 20+ Population Physical Inactivity*	20.6%	15.0%	32.6%		<ul style="list-style-type: none"> – Suburban Hospital’s longstanding partnership with Sodexo links nutrition services, by registered dietitians, to communities outside the walls of the hospital – Suburban Hospital collaborates and leverages resources with local organizations to offer free seminars, cooking demos, walking programs, fitness programs, cooking classes to help improve community members’ nutrition and exercise level – Suburban Hospital offers specialized weight and chronic disease management programs and services – Suburban Hospital supports Community Supported Agriculture (CSA) programs providing staff and their families the opportunity to purchase local fruits and vegetables on hospital property
% adults who report consuming fruit < 1x daily (2017)*	34.3%				
Percent Adults with BMI > 30.0 (Obese)* (2015)	30%	21%	30.5%		
Adolescents who are physically active daily (2017)*	17.90%				
Adolescents who drank soda daily (2017)*	14%				
Students who are overweight or obese (2016)	12.6	7.8	16.1	10.7	

Sources:

- Maryland Healthcare Services and Cost Review Commission annual emergency room outpatient discharges (HSCRC ER)
- Maryland Department of Health & Mental Hygiene (DHMH), Vital Statistics Administration Annual Birth Files, Montgomery County (VSA Births)
- Maryland Department of Health & Mental Hygiene (DHMH), Vital Statistics Administration Annual Death Files, Montgomery County (VSA Births)
- National Survey on Drug Use and Health (NSDUH)
- National Cancer Institute (NCI)
- Maryland Behavioral Risk Factor Surveillance System (BRFSS)
- Maryland Youth Risk Behavior Survey (YRBS)
- American Community Survey (ACS)
- Montgomery County Public Schools (MCPS)
- Maryland State Health Improvement Process (SHIP)
<http://dhmh.maryland.gov/ship/SitePages/Home.aspx>
- Healthy Montgomery <http://www.healthymontgomery.org/>
- State Cancer Profiles <http://statecancerprofiles.cancer.gov/>
- <http://www.dartmouthatlas.org/data/table.aspx?ind=198>
- Community Commons www.communitycommons.org
- Health Indicators Warehouse <http://www.healthindicators.gov/>
- Centers for Disease Control (CDC)

Appendix C. Suburban Hospital's Primary Service Area Zip Codes

Zip Code	PSA	City	State	County
20812	PSA	GLEN ECHO	MD	MONTGOMERY
20813	PSA	BETHESDA	MD	MONTGOMERY
20814	PSA	BETHESDA	MD	MONTGOMERY
20815	PSA	CHEVY CHASE	MD	MONTGOMERY
20816	PSA	BETHESDA	MD	MONTGOMERY
20817	PSA	BETHESDA	MD	MONTGOMERY
20818	PSA	CABIN JOHN	MD	MONTGOMERY
20824	PSA	BETHESDA	MD	MONTGOMERY
20825	PSA	CHEVY CHASE	MD	MONTGOMERY
20827	PSA	BETHESDA	MD	MONTGOMERY
20859	PSA	POTOMAC	MD	MONTGOMERY
20889	PSA	BETHESDA	MD	MONTGOMERY
20891	PSA	KENSINGTON	MD	MONTGOMERY
20892	PSA	BETHESDA	MD	MONTGOMERY
20895	PSA	KENSINGTON	MD	MONTGOMERY
20896	PSA	GARRETT PARK	MD	MONTGOMERY
20894	PSA	BETHESDA	MD	MONTGOMERY
20847	PSA	ROCKVILLE	MD	MONTGOMERY
20848	PSA	ROCKVILLE	MD	MONTGOMERY
20849	PSA	ROCKVILLE	MD	MONTGOMERY
20850	PSA	ROCKVILLE	MD	MONTGOMERY
20851	PSA	ROCKVILLE	MD	MONTGOMERY
20852	PSA	ROCKVILLE	MD	MONTGOMERY
20853	PSA	ROCKVILLE	MD	MONTGOMERY
20854	PSA	POTOMAC	MD	MONTGOMERY
20857	PSA	ROCKVILLE	MD	MONTGOMERY

Appendix D. Suburban Hospital 2019 Community Benefit Service Area

Suburban Hospital

2019 Community Health Needs Assessment: Community Benefit Service Area

2019 CBSA		Criteria for Inclusion			Comparison	
City	Zip Code	ED (50%)	IP (50%)	Charity Vol (50%)	FY16 CBSA	SH PSA
1	BETHESDA	20814	X	X	X	X
2	CHEVY CHASE	20815	X	X	X	X
3	BETHESDA	20817	X	X	X	X
4	ROCKVILLE	20852	X	X	X	X
5	POTOMAC	20854	X	X	X	X
6	ROCKVILLE	20850		X	X	X
7	ROCKVILLE	20851		X	X	X
8	ROCKVILLE	20853		X	X	X
9	SILVER SPRING	20906		X	X	
10	SILVER SPRING	20902		X	X	
11	SILVER SPRING	20910		X	X	
12	SILVER SPRING	20904		X	X	
13	BETHESDA	20816		X		X
14	KENSINGTON	20895	X			X

DEFINITIONS

Community Benefit Service Area (CBSA)

Suburban Hospital considers its Community Benefit Service Area (CBSA) as specific populations or communities of need to which the Hospital allocates resources through its community benefits plan. Within the CBSA, Suburban Hospital focuses on certain target populations such as uninsured individuals and households, underinsured and low-income individuals and households, ethnically diverse populations, underserved seniors and at-risk youth.

To determine the Hospital's CBSA, data from Inpatient Records, Emergency Department (ED) Visits, Charity Care Volume were aggregated and defined by the geographic area

Primary Service Area (PSA)

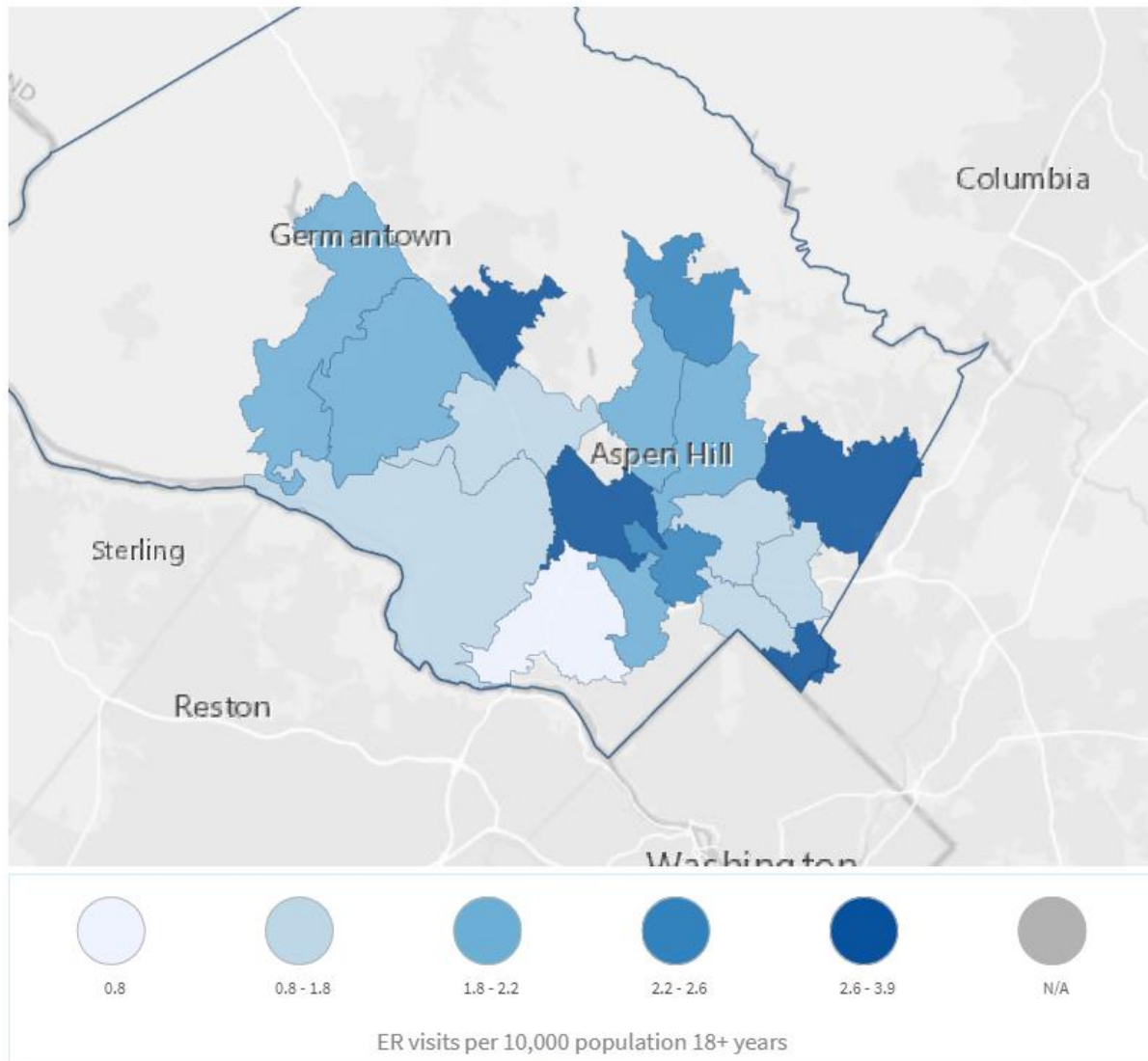
A PSA or primary service area is defined as the postal zip code areas from which 60 percent of a hospital's inpatient discharges originated during the most recent 12 month period. This information is provided by the Maryland Health Services Cost Review Commission (HSCRC).

Appendix E. Heart Failure Data at the Zip-Code Level, Montgomery County

Age-Adjusted ER Rate due to Heart Failure Zip Code

Data Source: The Maryland Health Services Cost Review Commission

Measurement Period: 2009-2011



March 1, 2019

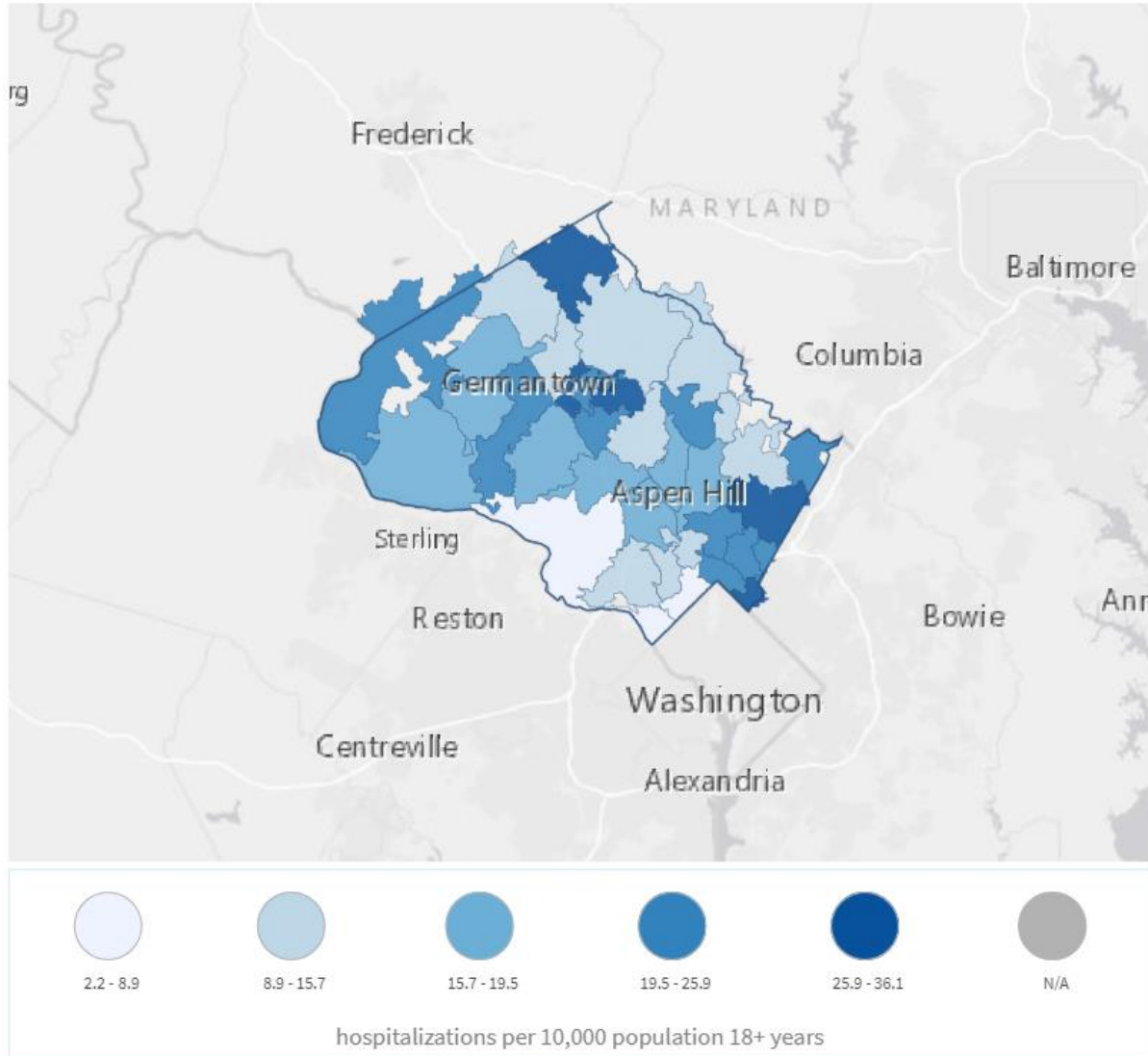
www.healthymontgomery.org

There are **17 Zip Code** values. The lowest value is **0.8**, and the highest value is **3.9**. Half of the values are between **1.7 and 2.5**. The middle (median) value is **2**.

Age-Adjusted Hospitalization Rate due to Heart Failure Zip Code

Data Source: The Maryland Health Services Cost Review Commission

Measurement Period: 2009-2011



March 1, 2019

www.healthymontgomery.org

There are **35 Zip Code** values. The lowest value is **2.2**, and the highest value is **36.1**. Half of the values are between **14.25** and **21.9**. The middle (median) value is **18.8**.

Appendix F. Ten Leading Causes of Unintentional Injuries by Age Group

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States - 2017

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 1,106	Unintentional Drowning 424	Unintentional MV Traffic 327	Unintentional MV Traffic 428	Unintentional MV Traffic 6,697	Unintentional Poisoning 10,478	Unintentional Poisoning 15,032	Unintentional Poisoning 14,707	Unintentional Poisoning 10,581	Unintentional Fall 31,190	Unintentional Poisoning 64,795
2	Homicide Unspecified 139	Unintentional MV Traffic 362	Unintentional Drowning 125	Suicide Suffocation 280	Unintentional Poisoning 5,030	Unintentional MV Traffic 6,871	Unintentional MV Traffic 5,162	Unintentional MV Traffic 5,471	Unintentional MV Traffic 5,584	Unintentional MV Traffic 7,667	Unintentional MV Traffic 38,659
3	Unintentional MV Traffic 90	Homicide Unspecified 129	Unintentional Fire/Bum 94	Suicide Firearm 185	Homicide Firearm 4,391	Homicide Firearm 4,594	Suicide Firearm 3,098	Suicide Firearm 3,937	Suicide Firearm 4,219	Suicide Firearm 5,996	Unintentional Fall 36,338
4	Homicide Other Spec., Classifiable 76	Unintentional Suffocation 110	Homicide Firearm 78	Homicide Firearm 126	Suicide Firearm 2,959	Suicide Firearm 3,458	Suicide Suffocation 2,562	Suicide Suffocation 2,294	Unintentional Fall 2,760	Unintentional Unspecified 5,125	Suicide Firearm 23,854
5	Undetermined Suffocation 56	Unintentional Fire/Bum 95	Unintentional Suffocation 36	Unintentional Drowning 110	Suicide Suffocation 2,321	Suicide Suffocation 3,063	Homicide Firearm 2,561	Suicide Poisoning 1,604	Suicide Suffocation 1,631	Unintentional Suffocation 3,920	Homicide Firearm 14,542
6	Unintentional Drowning 43	Unintentional Pedestrian, Other 88	Unintentional Other Land Transport 25	Unintentional Other Land Transport 66	Unintentional Drowning 469	Undetermined Poisoning 887	Suicide Poisoning 1,089	Homicide Firearm 1,447	Suicide Poisoning 1,459	Adverse Effects 2,902	Suicide Suffocation 13,075
7	Undetermined Unspecified 37	Homicide Other Spec., Classifiable 49	Homicide Suffocation 15	Unintentional Fire/Bum 56	Suicide Poisoning 463	Suicide Poisoning 788	Undetermined Poisoning 792	Unintentional Fall 1,248	Homicide Firearm 824	Unintentional Poisoning 2,871	Unintentional Suffocation 6,946
8	Homicide Suffocation 26	Homicide Firearm 44	Homicide Cut/pierce 14	Suicide Poisoning 39	Undetermined Poisoning 280	Unintentional Drowning 479	Unintentional Fall 522	Undetermined Poisoning 887	Unintentional Suffocation 811	Unintentional Fire/Bum 1,278	Unintentional Unspecified 6,506
9	Unintentional Natural/Environment 18	Unintentional Natural/Environment 34	Unintentional Firearm 14	Unintentional Poisoning 39	Homicide Cut/pierce 266	Homicide Cut/pierce 404	Unintentional Drowning 397	Unintentional Drowning 451	Adverse Effects 773	Suicide Poisoning 1,111	Suicide Poisoning 6,554
10	Three Tied 16	Unintentional Firearm 31	Two Tied 13	Unintentional Suffocation 35	Unintentional Fall 212	Unintentional Fall 351	Homicide Cut/Pierce 337	Unintentional Suffocation 441	Undetermined Poisoning 732	Suicide Suffocation 919	Adverse Effects 4,459

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System. Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



National Estimates of the 10 Leading Causes of Nonfatal Injuries Treated in Hospital Emergency Departments, United States – 2017

Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Unintentional Fall 120,007	Unintentional Fall 699,107	Unintentional Fall 530,390	Unintentional Struck By/Against 451,267	Unintentional Struck By/Against 755,114	Unintentional Fall 647,408	Unintentional Fall 623,997	Unintentional Fall 828,731	Unintentional Fall 1,047,959	Unintentional Fall 2,970,720	Unintentional Fall 8,591,683
2	Unintentional Struck By/Against 23,356	Unintentional Struck By/Against 254,793	Unintentional Struck By/Against 323,525	Unintentional Fall 451,183	Unintentional Fall 671,408	Unintentional MV-Occupant 579,446	Unintentional Other Specified 436,726	Unintentional Other Specified 473,983	Unintentional Other Specified 356,187	Unintentional Struck By/Against 312,954	Unintentional Struck By/Against 3,685,012
3	Unintentional Other Bite/Sting 13,505	Unintentional Other Bite/Sting 139,941	Unintentional Other Bite/Sting 107,577	Unintentional Overexertion 222,433	Unintentional MV-Occupant 595,092	Unintentional Struck By/Against 528,104	Unintentional Struck By/Against 396,695	Unintentional Overexertion 362,246	Unintentional Struck By/Against 278,211	Unintentional Overexertion 227,817	Unintentional Overexertion 2,569,850
4	Unintentional Other Specified 9,737	Unintentional Foreign Body 121,422	Unintentional Cut/Pierce 88,488	Unintentional Cut/Pierce 99,249	Unintentional Overexertion 493,072	Unintentional Other Specified 517,628	Unintentional Overexertion 395,791	Unintentional Struck By/Against 360,767	Unintentional Overexertion 258,488	Unintentional MV-Occupant 215,666	Unintentional MV-Occupant 2,500,353
5	Unintentional Foreign Body 8,618	Unintentional Cut/Pierce 60,421	Unintentional Overexertion 65,413	Unintentional Unknown/Unspecified 67,107	Unintentional Cut/Pierce 345,982	Unintentional Overexertion 482,430	Unintentional MV-Occupant 381,110	Unintentional Poisoning 337,444	Unintentional MV-Occupant 249,192	Unintentional Cut/Pierce 162,819	Unintentional Other Specified 2,365,891
6	Unintentional Inhalation/Suffocation 8,518	Unintentional Overexertion 58,727	Unintentional MV-Occupant 53,791	Unintentional MV-Occupant 64,349	Unintentional Other Specified 331,389	Unintentional Poisoning 401,819	Unintentional Poisoning 321,267	Unintentional MV-Occupant 331,388	Unintentional Poisoning 245,289	Unintentional Other Specified 143,563	Unintentional Cut/Pierce 1,823,358
7	Unintentional Fire/Burn 7,567	Unintentional Other Specified 47,348	Unintentional Foreign Body 52,756	Unintentional Other Bite/Sting 57,014	Other Assault* Struck By/Against 312,205	Unintentional Cut/Pierce 372,787	Unintentional Cut/Pierce 269,865	Unintentional Cut/Pierce 235,597	Unintentional Cut/Pierce 184,284	Unintentional Poisoning 137,849	Unintentional Poisoning 1,755,044
8	Unintentional Unknown/Unspecified 4,618	Unintentional Fire/Burn 41,066	Unintentional Pedal Cyclist 39,388	Other Assault* Struck By/Against 54,366	Unintentional Poisoning 246,611	Other Assault* Struck By/Against 355,927	Other Assault* Struck By/Against 212,483	Other Assault* Struck By/Against 171,022	Unintentional Other Bite/Sting 115,933	Unintentional Other Bite/Sting 116,191	Other Assault* Struck By/Against 1,261,580
9	Unintentional Cut/Pierce 3,844	Unintentional Unknown/Unspecified 38,207	Unintentional Dog Bite 33,586	Unintentional Pedal Cyclist 49,283	Unintentional Other Bite/Sting 147,861	Unintentional Other Bite/Sting 176,855	Unintentional Other Bite/Sting 131,323	Unintentional Other Bite/Sting 135,907	Other Assault* Struck By/Against 95,550	Unintentional Unknown/Unspecified 96,304	Unintentional Other Bite/Sting 1,142,130
10	Unintentional Poisoning 3,459	Unintentional Poisoning 37,493	Unintentional Unknown/Unspecified 32,336	Unintentional Other Transport 40,876	Unintentional Unknown/Unspecified 122,980	Unintentional Unknown/Unspecified 120,116	Unintentional Unknown/Unspecified 98,759	Unintentional Unknown/Unspecified 95,913	Unintentional Unknown/Unspecified 78,898	Unintentional Other Transport 79,829	Unintentional Unknown/Unspecified 755,567

*The "Other Assault" category includes all assaults that are not classified as sexual assault. It represents the majority of assaults.

Data Source: NEISS All Injury Program operated by the Consumer Product Safety Commission (CPSC).
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



Appendix G. Behavioral Health Diagnosis as seen at Suburban Hospital's Emergency Department

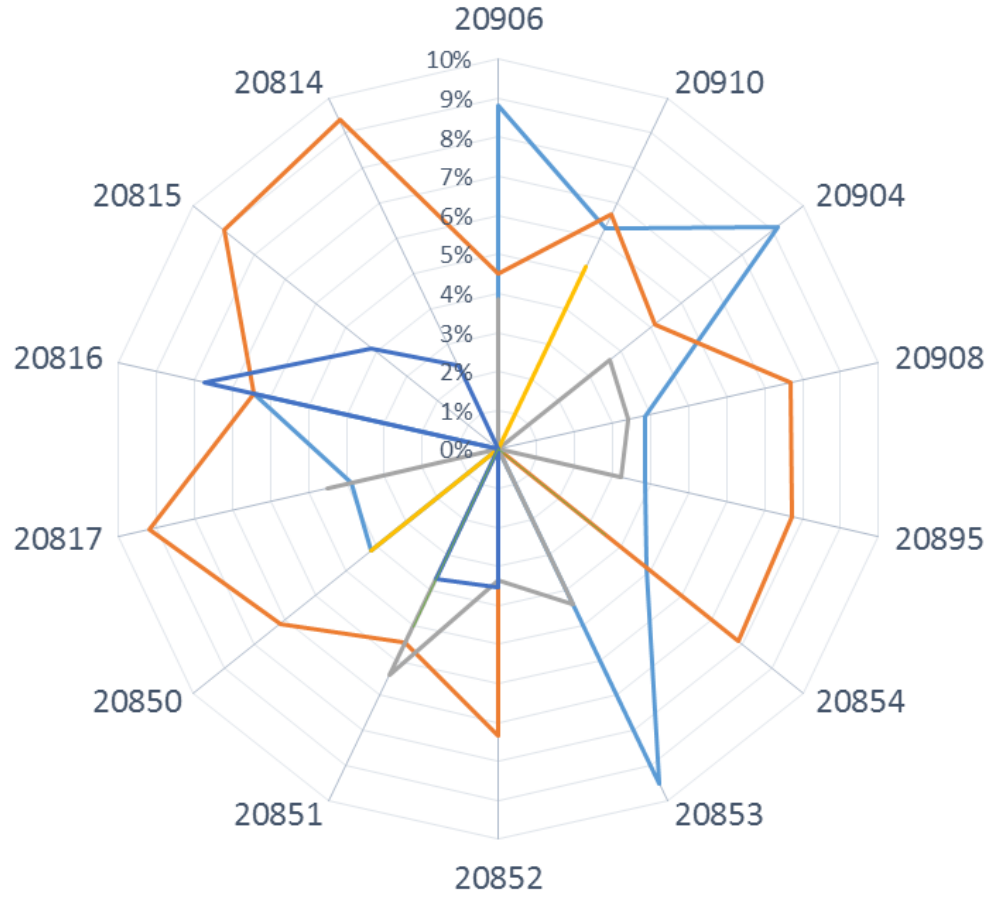
Sum of ED_Visits	Calendar Year			
Row Labels	2016	2017	2018	Grand Total
Acute stress reaction	4	26	13	43
Alcohol abuse with intoxication, uncomplicated	135	258	141	534
Alcohol abuse with intoxication, unspecified	63	150	152	365
Alcohol abuse, uncomplicated	57	92	76	225
Alcohol dependence with withdrawal delirium	53	58	36	147
Alcohol dependence with withdrawal, uncomplicated	100	248	335	683
Alcohol dependence with withdrawal, unspecified	37	85	94	216
Anxiety disorder, unspecified	102	172	162	436
Bipolar disorder, current episode depressed, severe, with psychotic features	22	39	22	83
Bipolar disorder, current episode depressed, severe, without psychotic features	31	52	60	143
Bipolar disorder, current episode manic severe with psychotic features	20	32	26	78
Bipolar disorder, unspecified	39	81	75	195
Major depressive disorder, recurrent severe without psychotic features	144	248	287	679
Major depressive disorder, recurrent, moderate	5	26	36	67
Major depressive disorder, recurrent, severe with psychotic symptoms	28	47	88	163
Major depressive disorder, single episode, severe without psychotic features	28	50	36	114
Major depressive disorder, single episode, unspecified	148	266	194	608
Other psychoactive substance abuse, uncomplicated	18	28	16	62
Panic disorder (episodic paroxysmal anxiety)	28	41	53	122
Postconcussional syndrome	34	58	37	129
Schizoaffective disorder, bipolar type	32	59	77	168
Schizoaffective disorder, depressive type	16	26	43	85
Schizophrenia, unspecified	44	63	60	167
Unspecified dementia with behavioral disturbance	8	21	35	64
Unspecified psychosis not due to a substance or known physiological condition	50	101	86	237
Grand Total	1246	2327	2240	5813

ED Behavioral Health Diagnosis for Suburban's CBSA
 Dates: FY17, 18, 19 (thru Nov 30, 2018)

Sum of ED_Visits		PAT_ZI										
PRIM_DX	PRIM_DX_NAME	20815	20816	20817	20850	20852	20853	20854	20895	20906	Grand Total	
F03.91	Unspecified dementia with behavioral disturbance	8		4	2	14		10	4	1	43	
F07.81	Postconcussional syndrome	5	2	15	5	11	4	11	4	8	65	
F10.10	Alcohol abuse, uncomplicated	14	0	16	4	14	6	11	8	8	81	
F10.120	Alcohol abuse with intoxication, uncomplicated	24	10	36	16	38	14	31	17	11	197	
F10.129	Alcohol abuse with intoxication, unspecified	20	7	20	11	26	9	22	10	16	141	
F10.230	Alcohol dependence with withdrawal, uncomplicated	17	13	26	37	29	13	33	11	33	212	
F10.231	Alcohol dependence with withdrawal delirium	2	2	6	3	9	1	4	2	10	39	
F10.239	Alcohol dependence with withdrawal, unspecified	3	6	6	8	7	5	7	2	12	56	
F19.10	Other psychoactive substance abuse, uncomplicated	1		7	1	5		2	4	3	23	
F20.9	Schizophrenia, unspecified	3	4	11	1	4	2	4	6	10	45	
F25.0	Schizoaffective disorder, bipolar type	2	9	6	16	11	4	8	4	5	65	
F25.1	Schizoaffective disorder, depressive type	1	3	7	4	4	3	2	2	10	36	
F29	Unspecified psychosis not due to a substance or known etiology	15	5	15	7	23	4	7	10	12	98	
F31.2	Bipolar disorder, current episode manic severe with psychosis	5	1	8	3	5	2	9	3	3	39	
F31.4	Bipolar disorder, current episode depressed, severe	1	1	7	10	18	3	4	4	7	55	
F31.5	Bipolar disorder, current episode depressed, severe with psychosis	2		7	5	4	1	4		1	24	
F31.9	Bipolar disorder, unspecified	8	4	14	7	17	1	9	10	5	75	
F32.2	Major depressive disorder, single episode, severe with psychosis	5	2	14	5	13	2	7	1	5	54	
F32.9	Major depressive disorder, single episode, unspecified	32	11	53	14	44	24	36	28	29	271	
F33.1	Major depressive disorder, recurrent, moderate	11	2	8	2	10	3	3	5	2	46	
F33.2	Major depressive disorder, recurrent severe without psychosis	30	10	63	21	54	12	21	19	28	258	
F33.3	Major depressive disorder, recurrent, severe with psychosis	2	1	6	8	18	1	14	7	10	67	
F41.0	Panic disorder (episodic paroxysmal anxiety)	4	2	12	6	15	4	5	5	9	62	
F41.9	Anxiety disorder, unspecified	25	10	38	21	49	10	32	9	21	215	
F43.0	Acute stress reaction	2		4	3	10		1	2	3	25	
Grand Total		242	105	409	220	452	128	297	177	262	2292	

Appendix H. Readmission Data for the Suburban’s Community Benefit Service Area

- KNEE JOINT REPLACEMENT
 - MAJOR DEPRESSIVE DISORDERS & OTHER/UNSPECIFIED PSYCHOSES
 - CVA & PRECEREBRAL OCCLUSION W INFARCT
- SEPTICEMIA & DISSEMINATED INFECTIONS
 - ALCOHOL ABUSE & DEPENDENCE
 - OTHER PNEUMONIA



Appendix I. Healthy Montgomery Steering Committee Members

Organization	Name of Key Collaborator	Title	Collaboration Description
Manna Food Center	Jackie DeCarlo (Co-Chair)	Executive Director	Co-chair
Montgomery County Department Health and Human Services	Travis Gayles, M.D.	County Health Officer and Chief Public Health Services	Co-chair
Montgomery County Public Schools	Jonathan Brice	Associate Superintendent	Member
Montgomery County Department Health and Human Services	Raymond Crowel, PsyD.	Chief, Behavioral Health and Crisis Services	Member
Maryland General Assembly	Delegate Bonnie Cullison	Member of the House of Delegates	Member
Primary Care Coalition of Montgomery County	Leslie Graham	President & Chief Executive Officer	Member
Kaiser Permanente	Amy Gyau-Moyer	Program Manager, Community Health and Benefits	Member
Commission on Health	Michelle Hawkins	Member, African American Health Program	Member
Montgomery County Department of Planning	Amy Lindsey	Senior Planner	Member
Adventist HealthCare	Marilyn Lynk	Executive Director	Member
MedStar Montgomery Medical Center	Dairy Marroquin	Community Outreach Coordinator	Member
Holy Cross Hospital	Kimberley McBride	Vice President, Community Health	Member
Ronald D. Paul Companies EveryMind (Mental Health Association of Montgomery County)	Kathy McCallum	Controller Member	Member
Carefirst Blue Cross Blue Shield African American Health Program	Beatrice Miller	Senior Regional Care Member	Member

Montgomery Parks	Rachel Newhouse	Park Planner Coordinator	Member
Asian American Health Initiative	Nguyen Nguyen, M.D.	Member	Member
Montgomery County Department of Transportation	Samuel Oji	Chief, Enhanced Mobility and Senior Services Section	Member
<i>Clinica Proyecto Salud</i> Latino Health Initiative	Cesar Palacios, M.D.	Executive Director Member	Member
Montgomery County Recreation Department	Robin Riley	Division Chief	Member
Suburban Hospital	Monique L. Sanfuentes	Administrative Director, Community Affairs & Population Health	Member
Georgetown University School of Nursing and Health Studies	Michael Soto, Ph.D.	Professor	Member
Department of Housing and Community Affairs	Myriam Torrico	Community Program Manager	Member
Montgomery County Collaboration	Elijah Wheeler	Deputy Executive Director	Member

Appendix J. Suburban Hospital Community Health Improvement Advisory Council

Organization	Name	Title	Description
Capstone Development, LLC	Norman Jenkins	Founder and CEO	Chairman of Suburban Hospital's Community Benefit Advisory Council; Facilitates Advisory meetings; Suburban Hospital Board of Trustees
A Wider Circle	Mark Bergel, Ph.D.	Founder and Executive Director	Member of Suburban Hospital's Community Benefit Advisory Council; offers unique community perspective as his organization works with the underserved population.
Total Wine and More	Vanessa Bernarding	Sr. Director, Human Resources	Member of Suburban Hospital's Community Benefit Advisory Council
Community Advocate	Belle Brooks O'Brien	Resident of Montgomery County	Member of Suburban Hospital's Community Benefit Advisory Council; Suburban Hospital Board of Trustees
Healthcare Initiative Foundation	Crystal Carr Townsend	President	Member of Suburban Hospital's Community Benefit Advisory Council
Bradley Hills Village	Betsy Carrier	Treasurer	Member of Suburban Hospital's Community Benefit Advisory Council
Community Physician	Diane Colgan, M.D.	Former Medical Staff Chair for Suburban Hospital	Member of Suburban Hospital's Community Benefit Advisory Council; Suburban Hospital Board of Trustees
Bethesda Chevy Chase Regional Services Center	Ken Hartman	Regional Services Director	Member of Suburban Hospital's Community Benefit Advisory Council; host facility for many CHW programs
YMCA of Metropolitan Washington	Carla P. Larrick	Vice President of Operations	Member of Suburban Hospital's Community Benefit Advisory Council
Girls on the Run, Montgomery County	Elizabeth McGlynn	Executive Director	Member of Suburban Hospital's Community Benefit Advisory Council; Suburban Hospital supports GOTR as it official health sponsor providing financial support, training for coaches and health education at bi-annual races
Chevy Chase Trust	Stacy C. Murchison	Chief Marketing Officer	Member of Suburban Hospital's Community Benefit Advisory Council
AQUAS, Incorporated	Carmen Ortiz Larsen	President	Member of Suburban Hospital's Community Benefit Advisory Council

Montgomery County Police Department	Michael Prather	Officer	Member of Suburban Hospital's Community Benefit Advisory Council; Partners with CHW to bring safety information to the Hospital's CBSA community
Community Physician	Michael A. Smith, M.D.	Radiologist and brother of Alpha Phi Alpha Fraternity, Montgomery County Chapter	Member of Suburban Hospital's Community Benefit Advisory Council; Partners with CHW in bringing health education to Alpha Phi Alpha Montgomery County Chapter
American University	Anastasia Snelling, Ph.D.	Professor and Department Chair, Health Studies	Member of Suburban Hospital's Community Benefit Advisory Council
Montgomery County Police Department	Dana Stroman	Officer	Member of Suburban Hospital's Community Benefit Advisory Council; Partners with CHW to bring safety information to the Hospital's CBSA community
Aronson, LLC	Michael K. Yuen	Certified Public Accountant	Member of Suburban Hospital's Community Benefit Advisory Council

Appendix K. Community Survey Tool

Patient Education Needs Questionnaire

1. What is your residential zip code? _____ Gender: M F

2. What is your age?

21-30

41-50

61-70

81-90

31-40

51-60

71-80

> 90

3. How would you rate your health in general?

Excellent

Good

Fair

Poor

4. What health conditions do you have? Check all those that apply.

Diabetes

COPD

Cancer

High blood pressure

Heart disease

Other: _____

None

Do not wish to answer

5. How likely are you to attend a wellness education class?

Very likely

Somewhat Likely

Not likely

If you answered "not likely" to attend a class, what would motivate you to attend a class?

6. How far are you willing to travel for a wellness class? Please check one.

Less than 30 minutes

Up to 45 minutes

Up to an hour

No preference

7. What is a convenient time for you to attend a wellness class? Check all that apply.

- Morning (10-11:30 am)
- Afternoon (between 2-4 pm)
- Early evening (5:30 or later)

8. Use the list provided below to indicate your level of interest in wellness topics

Class	Not interested	somewhat Interested	Very Interested
a. Weight Management and Nutrition	1	2	3
b. Diabetes self-management	1	2	3
c. Pre-diabetes management	1	2	3
d. Smoking cessation	1	2	3
e. Heart health	1	2	3
f. Chronic disease self-management	1	2	3

Please list topics of interest not mentioned above:

9. Will any of the following factors prevent you from attending a wellness class? Check those that apply.

- Lack of transportation
- Cost of class
- Time of day class will be offered
- Lack of motivation
- Language
- Lack of interest
- Distance from home
- No factors
- Other: _____

If you have any additional comments that you would like to share with us, please write them on the space provided below or send an e-mail to prios@jhu.edu.

Once again thank you for answering the questions

Appendix L. Community Survey Results

Patient Education Needs Survey Results 2018
Total Number of Surveys Collected (N) = 151

1. Gender

	Male	Female	Blank	Total
Respondents	53 (35%)	83 (55%)	15 (10%)	151

2. Reported Health Status

Health Status	Over 50 YRS (N=112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Excellent	20	8	9	4	4	45 (30%)
Good	42	28	4	3	9	86 (57%)
Fair	6	7	1	1	1	16 (11%)
Poor	0	1	0	1	0	2 (1%)
Blank	0	0	1	0	1	2 (1%)
Total	68	44	15	9	15	151 or 100%

3. Reported Chronic Conditions by Participants (N=151)

Condition	Female	Male	Blank	Total
Diabetes	8	11	3	22 (11%)
COPD	2	2	0	4 (2%)
Cancer	5	2	2	9 (5%)
High Blood Pressure	33	20	6	59 (30%)
Heart Disease	5	4	0	9 (5%)
Other Illness	26	7	2	35(18%)
No health conditions	23	13	6	42(22%)
Did not wish to answer	3	1	0	4 (2%)
Blank	3	7	0	10 (5%)
Total	108	67	19	194 or 100%

While 22% or 42 of respondents (n=151) reported no current health conditions, a total of **95** individuals or 63% reported living with at least one chronic condition, and 7% or 14 individuals did not provide an answer. Among those who reported a health condition, a total of **33** individuals (35%) reported living with a least two co-morbidities. The most prominent conditions reported by participants were hypertension (30%) and diabetes (11%). Other conditions reported included: high cholesterol (2.6%), asthma (3.3%), and arthritis (6.6%).

4. Likelihood to Attend a Wellness Class based on Age and Gender

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Very likely to attend	8	4	2	1	3	18 (12%)
Somewhat likely to attend	32	20	7	1	8	68 (45%)
Not likely to attend	26	20	6	7	4	63 (42%)
Blank	2	0	0	0	0	2 (1%)
Total	68	44	15	9	15	151

57% reported either “very likely to attend a class” or “somewhat likely.” Participants who reported “not likely to attend” a class were asked to explain what would motivate them to attend a class. The main motivating factor reported was money. That is if participants were paid to attend a class. Other participants indicated (1) having more serious health issues and (2) if the class provided new information, they did not already know as additional motivating factors to participation.

5. Likelihood to Attend a Wellness Class based on Number of Present Chronic Condition

Scale	One Chronic Condition N=95	2+ Chronic Conditions N= 33	Total
Very likely to attend	13 (13%)	5 (15%)	18 (14%)
Somewhat likely to attend	45 (47%)	20 (61%)	65 (51%)
Not likely to attend	37 (39%)	8 (24%)	45 (35%)
Blank	0	0	0
Total	95	33	128

Participants who are more likely to attend a class are those living with a chronic condition. The likelihood to attend a class increases as the number of chronic conditions increases.

6. Prefer travel time to class*

Distance in Time	Over 50 YRS	50 & Under	Total
Less than 30 min	93	21	114 (74%)
Up to 45 min	8	3	11 (7)
Up to 1hr	1	1	2 (1%)
No time preference	11	3	15 (10%)
Did not response	11	2	12 (8%)
Total	124	30	154

7. Preferred time for class*

Time of Day	Over 50 YRS	50 & Under	Total
Morning class	34	6	40 (24%)
Afternoon class	30	5	35 (21%)
Evening class	35	13	48 (29%)
Did not response	33	8	41 (25%)
Total	132	32	164

8. Classes & Level of Interest

a) Weight Management

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	20	5	3	4	3	35 or 23%
Somewhat interested	18	19	3	0	5	45 or 30%
Very interested	16	8	5	3	5	37 or 24.5%
Did not response	14	12	4	2	2	34 or 22.5%
Total	68	44	15	9	15	151

b) Diabetes Self-Management

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	30	21	10	5	9	75 or 50%
Somewhat interested	4	3	0	1	0	8 or 5%
Very interested	5	6	0	1	2	14 or 9%
Did not response	29	14	5	2	4	54 or 36%
Total	68	44	15	9	15	151

c) Pre-Diabetes

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	30	19	9	5	9	72 or 48%
Somewhat interested	6	4	0	1	0	11 or 7%
Very interested	6	2	1	1	2	12 or 8%
Did not response	26	19	5	2	4	56 or 37%
Total	68	44	15	9	15	151

d) Smoking Cessation

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	37	25	10	6	9	87 or 58%
Somewhat interested	1	1	0	0	0	2 or 1%
Very interested	0	0	1	0	1	2 or 1%
Did not response	30	18	4	3	5	60 or 40%
Total	68	44	15	9	15	151

e) Heart Health

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	18	10	7	4	4	43 or 28%
Somewhat interested	19	10	2	0	5	36 or 24%
Very interested	7	12	1	3	2	25 or 17%
Did not response	24	12	5	2	4	47 or 31%
Total	68	44	15	9	15	151

f) Chronic Disease Self-management

Scale	Over 50 YRS (N= 112)		50 & Under (N=24)		Blank (N=15)	Total
	Female	Male	Female	Male		
Not interested	29	20	10	4	5	68 or 45%
Somewhat interested	3	4	0	1	1	9 or 6%
Very interested	8	2	0	1	3	14 or 9%
Did not response	28	18	5	3	6	60 or 40%
Total	68	44	15	9	15	151

Based on responses, the level of interest in classes are as follows (listed from highest level of interest to lowest): weight management class (24.5%), heart health class (16.5%), diabetes self-management class (9%), chronic disease self-management (9%), pre-diabetes (7%) and smoking cessation (1%). 17 (11%) of 151 participants listed other topics of interest, which included exercise, pain management, depression, bone health and asthma.

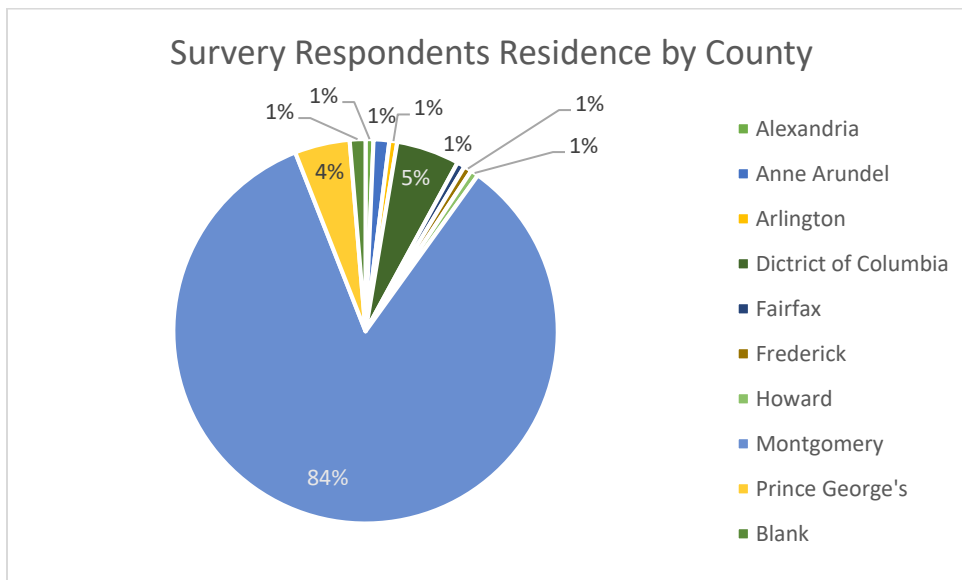
9. Barriers to Health Education Participation*

Scale	Over 50 YRS		50 & Under		Blank	Total
	Female	Male	Female	Male		
Transportation	2	1	0	0	0	3 (1%)
Cost	14	8	3	2	1	28 (12%)
Time	20	15	6	4	3	48 (20%)
Lack Motivation	11	9	4	3	3	30 (12%)
Language	0	0	0	0	0	0 (0%)
Lack of interest	15	12	5	3	4	39 (16%)
Distance	18	13	6	1	4	42 (17%)
No Factor	7	7	2	1	4	21 (9%)
Other	9	4	0	0	0	13 (5%)
Did not Respond	11	4	2	1	2	20 (8%)
Total	107	73	28	15	21	244 (100%)

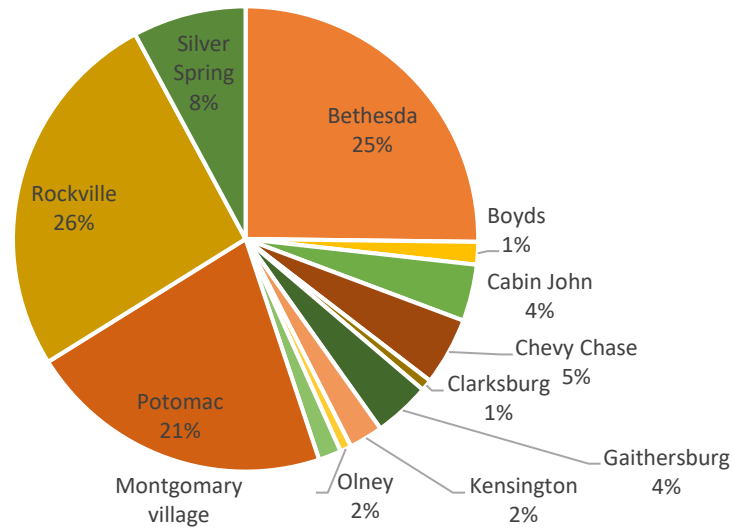
The top 3 factors prevention individuals from participating in a wellness program include time, distance, and lack of interest. Other factors mentioned, but not listed above included a work schedule and family obligations.

10. Zip Code Breakdown

Survey participants reside in 39 zip codes, originating from 25 different cities in 9 counties across the National Capital Region. Majority of respondents (84%) live in Montgomery County. 72% of Montgomery County residents who participated in the survey reported living in Bethesda (20817 & 20814), Potomac (20854) and Rockville (20850, 20851, 20852 & 20853).

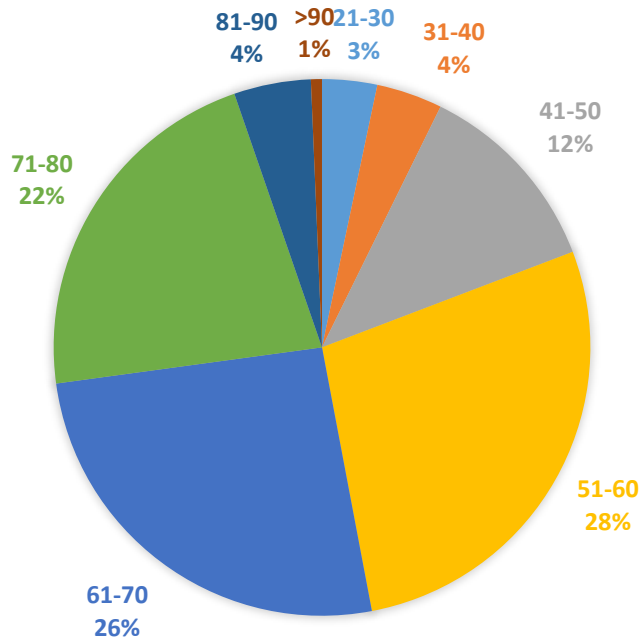


Montgomery County Survey Respondents by City



11. Age Breakdown

AGE GROUP DISTRIBUTION



**Total does not equal 151 because respondents provided more than one answer.*

Appendix M. Suburban Hospital's Community Health Needs Assessment Ad Hoc Committee

Leslie Ford Weber
Director, Campus, Government &
Community Affairs,
Montgomery County
Johns Hopkins University

Dr. Anastasia Snelling
Professor and Chair, Department of
Health Studies Program Director
American University

Brian Ebbitt
Chief of Staff,
Suburban Hospital

Betsy Carrier
Community Organizer,
Bradley Hills Village

Elizabeth McGlynn
Executive Director
Girls on the Run

Barbara Squiller
Manager, Oncology Research & Care
Coordination Suburban Hospital, Cancer
Center

Mitch Markowitz
Vice President, Business Development
Family Nursing Care

Ken Hartman
Director, Bethesda-Chevy Chase
Regional Service Center Montgomery
County
Department of Health & Human
Services

Dr. Langston Smith
Health Ministry Director
Colesville Baptist Church

Steven Bokat
Community Activist
Patient Family Advisory Council
Suburban Hospital

Sister Romana Uzodimma
Program Manager
Catholic Charities Healthcare Network
of Washington DC

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Community members are invited to submit their comments and/or questions in response to Suburban's 2019 CHNA via email at SHI-Health4u@jhmi.edu or by phone at 301-896-3572.

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