COMMUNITY

HEALTH NEEDS ASSESSMENT

MARYLAND 2021

Chase Brexton Health Care

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EXECUTIVE SUMMARY

Chase Brexton Health Care, founded in 1978 in Baltimore, Maryland, is a Federally Qualified Health Center (FQHC) that strives to provide compassionate, quality health care that honors diversity, inspires wellness, and improves its communities. In 2020, Chase Brexton Health Care served over 35,000 patients with locations in five counties in Maryland: Anne Arundel County, Baltimore City, Baltimore County, Howard County, and Talbot County (UDS, 2020).

Chase Brexton Health Care began as a volunteer-based lesbian, gay, bisexual, and transgender (LGBT) health center. In response to the HIV/AIDS epidemic during the early 1980s they became one of the first health centers to offer primary medical care, specialty medical care, and support services to individuals living with HIV/AIDS. As the years progressed, Chase Brexton Health Care expanded to meet the healthcare needs of underserved populations and the surrounding communities by opening additional locations. They expanded their services by adding behavioral health and social work services in 1991. In 1995, Chase Brexton Health Care began offering primary medical care services to all individuals regardless of their HIV/AIDS status and opened its first in-house pharmacy. In 1999, Chase Brexton Health Care became an FQHC as defined by section 330 of the Public Health Services Act and opened a second location in Baltimore County. In 2001, Chase Brexton Health Care earned accreditation in both Ambulatory Health Care and Behavioral Health from The Joint Commission, and as the decade continued, they opened three additional centers: Howard County (2006), Talbot County (2007), and Anne Arundel County (2014). The pharmacy services have expanded into four of the five centers and are now full-service pharmacies with 340B discount drug pricing and mail order delivery.

To understand the health status of the communities it serves, and in alignment with the Health Resources and Services Administration (HRSA) requirements, Chase Brexton completes a needs assessment of its population at least once every three years and adopts an implementation strategy to improve the delivery of its comprehensive primary healthcare, HIV/infectious disease care, dental care, behavioral health, and enabling services. This Community Health Needs Assessment (CHNA)

presents both primary and secondary data to identify the key factors impacting the health of populations in Chase Brexton Health Care's service area.

This CHNA uses collected primary data via key stakeholder questionnaires and interviews. Over 860 respondents participated in a questionnaire or interview. The key stakeholders included the following:

- Patients
- Chase Brexton Staff
- Chase Brexton Health Care Leadership/Board of Directors
- Community Partners

Through the stakeholder questionnaires and interviews, common themes were noted and contribute to the recommendations to Chase Brexton Health Care's activities based on community needs.

The most important health issues affecting the community included:

- Mental Health
- Diabetes
- Alcohol/drug addiction
- Heart disease/hypertension

The most important social/environmental problems affecting the community were identified as poverty, community violence, and appointment access. The most utilized services by patients included adult primary care, laboratory services, pharmacy, mental health, and dental care.

Regarding mental health, both patients and staff reveal challenges in managing mental health several days in a month. Interviews identify a shortage of mental and behavioral health providers at Chase Brexton Health Care creating long wait times for appointments.

The patient responses identify mobile medical services and gastroenterology as two services (currently not offered) that they would like Chase Brexton Health Care to offer.

Community partners applaud Chase Brexton Health Care's initiatives to identify and document social determinants of health in the health record, which can positively impact health care delivery and outcomes to distinct patient populations. Community partners also identify opportunities for Chase Brexton Health Care to participate in local health improvement coalitions to participate in the work to reduce health disparities. In addition, partners discuss having closer relationships with local hospitals to assist with long-term, longitudinal patient care after discharge from hospitals or transitional facilities.

Importantly, as Chase Brexton Health Care is a well-known provider in Maryland for LGBTQ (lesbian, gay, bisexual, transgender, queer/questioning), racial and ethnic minority groups, and HIV/AIDs communities, the stakeholder feedback in each category strongly agreed or agreed that Chase Brexton Health Care has a strong commitment to diversity, equity, and inclusion and that the work and services were aligned with its mission statement.

The secondary data analysis of the counties served reveals that Baltimore City has several measures that illustrate the critical health access challenges of its population that ultimately lead to poor health outcomes. Specifically, Baltimore City has the highest uninsured rate, the greatest number of medically underserved areas, the lowest county health outcome ranking in Maryland, and the lowest life expectancy of all of the jurisdictions reviewed in this assessment.

Concluding this CHNA are recommendations for Chase Brexton Health Care to continue its commitment to diversity, equity, and inclusion for all of its patients, staff, and partners by providing a robust patient-centered model that emphasizes access and timeliness of services, increasing integrated and co-located behavioral health programs, enhancing the workforce, and continuing training and technical assistance to local and state partners regarding care for the LGBTQ community.

METHODOLOGY

Primary and secondary data were collected, aggregated, and analyzed to identify gaps and trends within the Chase Brexton Health Care system and the wider community.

PRIMARY RESEARCH

Five questionnaires, specifically designed to gather information from the voice of staff, leadership, community partners, and patients were deployed between August 5, 2021 and August 20, 2021. Chase Brexton Health Care adapted the questionnaires to incorporate questions of importance to them based on knowledge of their patients and partner database.

All questionnaires were developed and deployed through Survey Monkey, an online survey tool. The staff questionnaire was sent internally through the Chase Brexton Health Care secure email and included a link to complete the questionnaire. The leadership (Board of Directors, and the senior leadership team) and community partners were sent questionnaires. The patient questionnaire was deployed using the Chase Brexton Health Care patient portal and Phreesia, a healthcare software application, and included a link to the questionnaire.

The patient questionnaire was also translated from English to Spanish to ensure the voice of the Hispanic/Latino community was incorporated into the research findings. Questionnaire respondents were age 18 and older.

There was a total of 861 respondents.

- Patient – 683
- Patient (Hispanic/Latino) – 49
- Staff –102
- Leadership/Board of Directors – 10
- Community Partners – 17

SECONDARY RESEARCH

RJHA collected secondary data from:

- Chase Brexton Health Care
- Center for Disease Control and Prevention
- County Health Rankings
- Health Resources and Services Administration
- Maryland Vital Statistics
- National Institute of Mental Health
- State of Maryland Behavioral Health Administration
- Various journal publications and websites

This secondary data is used throughout this CHNA to compare community health needs at the local, state, and national level. Secondary data can be identified through parenthetical and narrative in-text citations.

DATA LIMITATIONS AND INFORMATION GAPS

RJHA has identified a few data limitations that may impact the data analysis and the interpretation:

- The census data retrieved is based on summary estimates from the U.S. Census Bureau of the population completed in 2010.
- A significant percentage of patient respondents of the CHNA questionnaire (42.0% equating to 307 people) identified Baltimore as their primary location to receive services and, as a result, the data analysis presented relies heavily on this service area.
- The individual interviews were limited in number due to respondent availability.
- The number of responses from community partners is small and may not be a true representation of the service area of Chase Brexton Health Care.
- All health measurements and outcomes are based on the most recent data available for the state and/or county. Some county-level data were not available due to low population numbers.

SUMMARY OF KEY FINDINGS

This summary section briefly highlights some of the key findings that were explored throughout this CHNA report.

PATIENTS

The patient questionnaire was analyzed to determine important health issues, social/environmental problems, and challenges with accessing health care.

DEMOGRAPHICS

Patients who completed the CHNA indicated Baltimore City (42.0%) and Columbia, Maryland (29.0%) as the two primary Chase Brexton Health Care locations where they receive services. Patients identified their gender as 54.0% female, 38.0% male, 5.0% non-binary or third gender, 2.0% prefer to not answer, and 1.0% as other (not listed). Not listed responses included transgender. Most of the respondents reported ages in the range of 30-64 years.

The respondents ages in years are represented in Table 1.

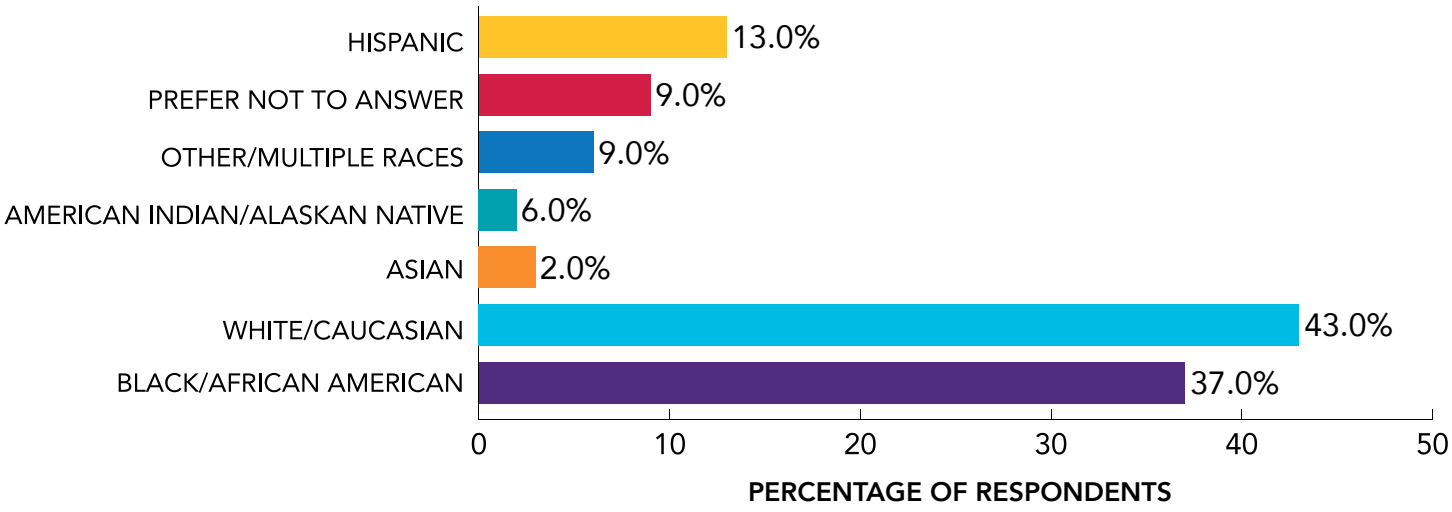
Table 1

Questionnaire Respondent Ages in Years

Age in Years	Percent Responses
30–39	19.0%
40–49	20.0%
50–64	32.0%
65–74	16.0%

Regarding race and ethnicity, the following chart illustrates the racial and ethnic identity of the patient respondents.

Chart 1:
Racial and Ethnic Identify of Patient Questionnaire Respondents



Also, among respondents, 93.0% report that they have never served in the U.S. Armed Forces, Military Reserves, or National Guard.

The CHNA patient respondents indicated the following regarding their marital status: 35.0% have never married, 27.0% are married, and 14.0% are divorced.

Regarding educational attainment, 29.0% respondents indicate some college or technical school education, 24.0% are college graduates, 22.0% have a graduate-level degree, and 17.0% have high school diploma or G.E.D. as their highest level of education.

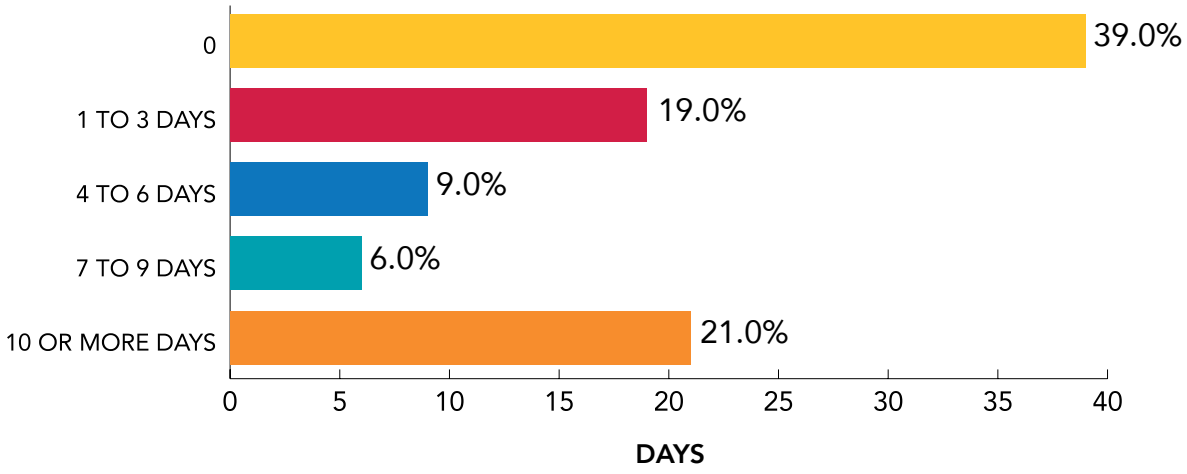
Income levels varied. Nineteen percent reported an income of $60,000 or more, and 37.0% reported an income of $24,999 or less.

MENTAL HEALTH

The CHNA also assessed individuals' mental health by asking respondents how many days, on average, during the past 30 days patients have experienced challenges managing their mental health.

Out of 724 patients who responded, 21.0% indicated 10 or more days of challenges managing mental health.

Chart 2:
Percent of Patients Reporting Challenges Managing Mental Health in the Past 30 Days



COMMUNITY HEALTH ISSUES

The responses revealed that the patients believe the top three most important health issues affecting their community are mental health, diabetes, and alcohol/drug addiction.

SOCIAL/ENVIRONMENTAL PROBLEMS

Responses ranking the most important social/environmental problems indicated

- Poverty – 8.6%
- Access to Insurance – 11.4%
- Access to Appointments – 8.6%

Notably, 12.0% of respondents were unsure of the social/environmental problem that affects the health of the community.

ACCESS TO HEALTH CARE SERVICES

The respondents who reported challenges accessing health services due to cost were 21.9%. Those with challenges due to lack of insurance were 16.0%. Again, it is notable that 11.5% of respondents were unsure of the challenges to access health services.

CHASE BREXTON HEALTH CARE SERVICES

Chase Brexton Health Care provides an array of services. Within the last three months, most respondents accessed Chase Brexton Health Care services for adult primary care, lab services, and pharmacy. When asked what services can be improved at Chase Brexton Health Care, 20.0% of respondents felt that phone service could be improved. Twenty percent (20.0%) of patients reveal the wait time to obtain a desired appointment needed improvement, and 18.0% indicate that the process of scheduling an appointment requires improvement. Similarly, a review of qualitative data from patients indicated challenges with receiving friendly customer service on the phone, and long phone hold times. When asked what services could be added, patients indicated mobile medical services and gastroenterology.

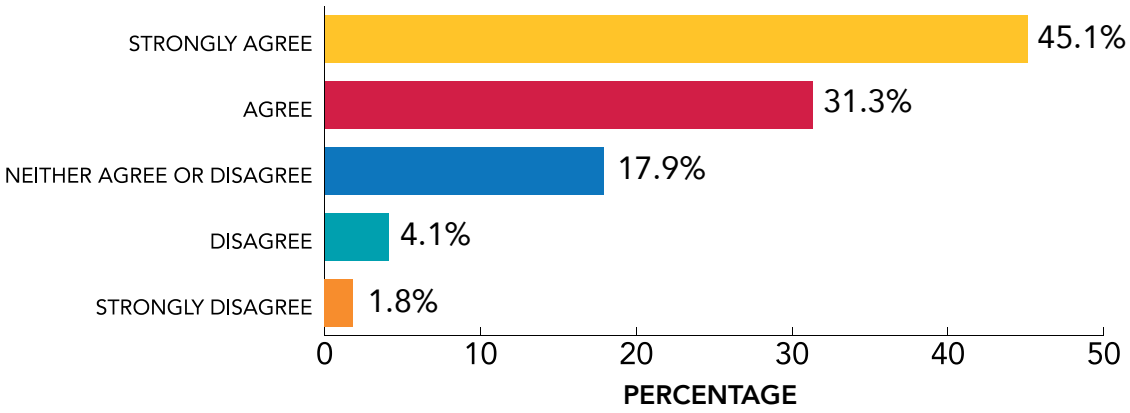
DIVERSITY, EQUITY, AND INCLUSION

Patients were asked to rate their assessment of the following statement: *Chase Brexton Health Care has a strong commitment to diversity, equity, and inclusion. Chart 3 provides the analysis of the 718 respondents.*

The top three most important health issues affecting my community Mental Health, Diabetes and Alcohol/ Drug Addiction.

Source: Virginia Commonwealth Center on Society and Health

Chart 3:
Percent of Patients Rating the Following Statement:
"Chase Brexton Health Care has a strong commitment to diversity, equity and inclusion."



STAFF

Clinical and non-clinical staff were given questionnaires and interviewed to evaluate patient and community needs. In addition, staff provided their perspective on Chase Brexton's committment to diversity and alignment with its mission statement.

DEMOGRAPHICS

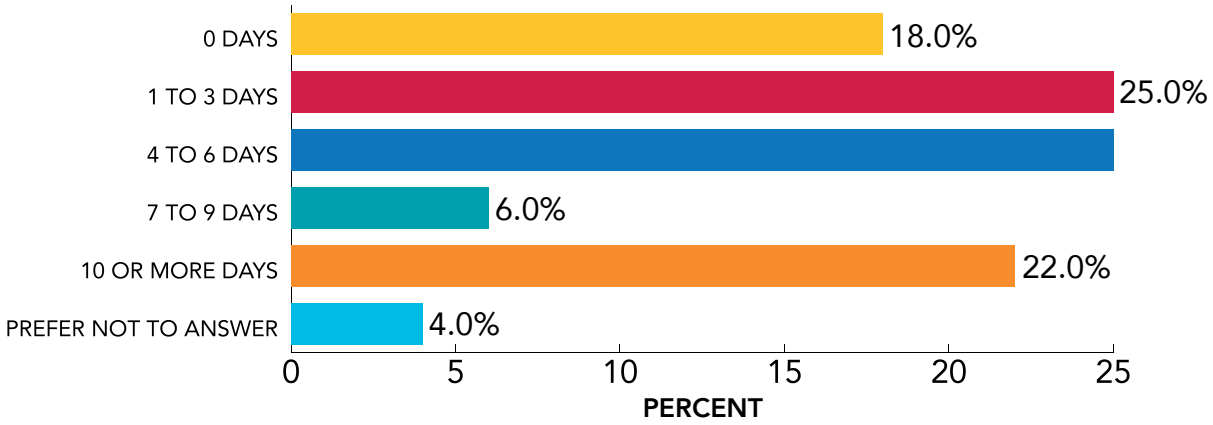
Most of the staff respondents, 62.0% indicated that the Baltimore was their primary practice location.

MENTAL HEALTH CARE

The questionnaire also assessed staff's mental health care by surveying on average, how many days (during the past 30 days) that staff may have experienced challenges with managing their mental health.

There were 102 staff respondents who indicated challenges with managing their mental health. Chart 4 provides the breakdown by the number of days reported.

Chart 4:
Percent of Staff Reporting Challenges Managing Mental Health in the Past 30 days



COMMUNITY HEALTH ISSUES

Staff identified diabetes/high blood sugar at 21.0%, alcohol/drug addiction at 19.0%, and mental health at 17.0% as the top three most important health issues facing the communities they serve.

SOCIAL/ENVIRONMENTAL PROBLEMS

Based on the staff responses, poverty, availability/access to appointments, and neighborhood safety/community violence were the three most important social/environmental factors that affect the health of the Chase Brexton Health Care community.

Staff and patients both indicated poverty and availability/access to appointments as an important concern.

ACCESS TO HEALTHCARE SERVICES

Regarding accessing health care services, staff identified the following as access barriers: 19.0% state cost as too expensive, 18.0% identify lack of transportation, 18.0% indicate wait too long (to obtain an appointment), and 13.0% feel lack of insurance. Qualitative data also revealed that staff are aware of challenges with adequate length of office visits to treat patients effectively, wait time to speak with a nurse on the phone, and difficulties with appointment availability.

CHASE BREXTON HEALTH CARE SERVICES

Regarding Chase Brexton Health Care services, staff indicated that continuity of providers, phone service, and improved time to get an appointment as the three areas where Chase Brexton Health Care can improve. Additionally, staff recommended that mobile medical services, gastroenterology, and aging issues/Alzheimer's services be added.

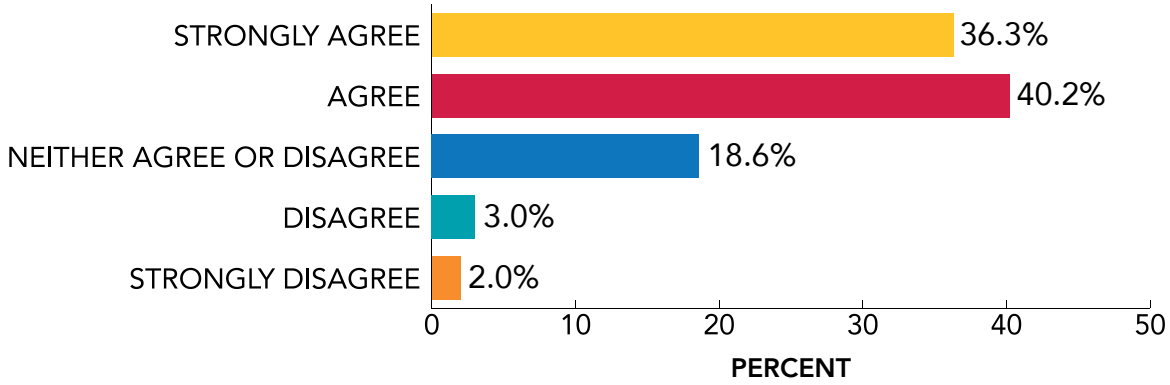
CHASE BREXTON HEALTH CARE'S COMMITMENT TO MISSION

Chase Brexton Health Care's mission statement is *"to provide compassionate, quality health care that honors diversity, inspires wellness, and improves our community."* Staff were asked to rate their agreement with the mission statement and its alignment to the current services provided to the community. Of the 102 respondents, 43.0% agreed with the statement, 37.0% strongly agreed, and 18.0% neither agreed nor disagreed.

DIVERSITY, EQUITY, AND INCLUSION

Staff were also asked to rate their assessment of the following statement: *Chase Brexton Health Care has a strong commitment to diversity, equity, and inclusion.* Of the 102 respondents, 76.0% agreed or strongly agreed, 19.0% neither agreed nor disagreed, and 5.0% disagreed or strongly disagreed.

Chart 5:
Percent of Staff Rating the following Statement
"Chase Brexton Health Care has a strong commitment to diversity, equity and inclusion."



LEADERSHIP

Chase Brexton Health Care leadership was defined as a member of the Board of Directors or someone in a leadership position at Chase Brexton Health Care. Ten leadership members responded to the CHNA. Here is a summary of their responses.

DEMOGRAPHICS

Leadership respondents were asked to identify where their home was located. The response showed a wide geographic spread with two leadership members living in Baltimore City. Sixty percent are female, 40.0% male. Racially, 50.0% identified as White/Caucasian with 30.0% as Black/African American, and 20.0% Asian.

COMMUNITY HEALTH ISSUES

Leadership identified heart disease/high blood pressure, mental health, and diabetes/high blood sugar as the top three health issues that affect the communities that Chase Brexton Health Care serves.

SOCIAL/ENVIRONMENTAL PROBLEMS

Responses for the three most important social/environmental problems that affect the community were neighborhood/community violence, and poverty, tied at 17.0% each, with housing/homelessness at 13.0%, lack of job opportunities was 13.0%, and limited access to healthy food at 13.0%.

ACCESS TO HEALTH CARE SERVICES

Leadership members were asked to identify the three most important reasons people in the communities they serve do not get health care. Respondents indicated the following as the most important

- Fear or mistrust of doctors
- Cost too expensive/ inability to pay
- Lack of transportation

CHASE BREXTON HEALTH CARE SERVICES

Regarding Chase Brexton Health Care's services, leadership respondents identified improved time to appointment, providing services in neighborhoods, and continuity of providers as areas of service improvement. Additionally, the leadership recommended adding mobile medical services and aging/ Alzheimer's services.

CHASE BREXTON HEALTH CARE COMMITMENT TO ITS MISSION

Leadership members were asked to rate their agreement of Chase Brexton Health Care's alignment to its mission statement. Of the leadership respondents, 70.0% strongly agree and 30.0% agree with Chase Brexton Health Care's mission statement "to provide compassionate, quality health care that honors diversity, inspires wellness, and improves our community."

Leadership members were also asked to identify whether or not they thought the mission of Chase Brexton Health Care was sustainable as an independent FQHC in the changing environment. Nine (out of ten) respondents answered affirmatively.

DIVERSITY, EQUITY, AND INCLUSION

Leadership members were also asked to rate their assessment of the following statement: *Chase Brexton Health Care has a strong commitment to diversity, equity, and inclusion.* All respondents members strongly agreed or agreed with this statement.

COMMUNITY PARTNERS

Chase Brexton Health Care identified partners within the community to provide greater insight into the communities served.

DEMOGRAPHICS

Seventeen community partners responded to the CHNA. Among them, 41.0% identified their organization as a hospital. Other organizations included non-profit, health agency, health department, government, primary care, and other (not listed).

Community partners' ZIP code composition included Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Howard County, and Prince George's County. It is notable that 53.0% of responses identified Baltimore City as the jurisdiction in which their organization is located. This coincides with the 59.0% of partners who indicate that they refer patients to the Chase Brexton Health Care Balitmore location while 24.0% indicated that they do not refer patients to Chase Brexton Health Care or their response was not listed.

COMMUNITY HEALTH ISSUES

Community partners identified diabetes/high blood sugar, mental health, and alcohol and drug addiction as the three most important health issues affecting the communities they serve.

SOCIAL/ENVIRONMENTAL PROBLEMS

Neighborhood safety/community violence, housing/homelessness, and poverty were the three most important social and environmental problems that affected the health of the community.

ACCESS TO HEALTH CARE SERVICES

For access to health care services, community partners identified costs, too expensive/inability to pay, fear or mistrust of doctors, and lack of transportation as barriers to health care services.

CHASE BREXTON HEALTH CARE SERVICES

Community partners were asked to identify health care services that Chase Brexton Health Care could improve upon or add. The percentage of respondents indicating that they were unsure of service improvements for Chase Brexton Health Care was 22.0%. Mobile medical services were recommended as possible additional services by 52.0% of community partner respondents.

CHASE BREXTON HEALTH CARE COMMITMENT TO ITS MISSION

Community partners were also asked to rate their agreement with Chase Brexton Health Care's commitment to its mission. Among respondents, a combined total of 83.0% strongly agreed or agreed with Chase Brexton Health Care's alignment to their mission statement.

DIVERSITY, EQUITY, AND INCLUSION

Regarding an assessment of the statement that Chase Brexton Health Care has a strong commitment to diversity, equity and inclusion, 83.0% strongly agreed or agreed.

COMMUNITIES SERVED AND SITE PROFILES

For over 43 years, Chase Brexton Health Care has served as a leader in Maryland delivering regional healthcare with compassion and quality while honoring diversity, inspiring wellness, and improving communities. Chase Brexton Health Care holds esteemed accreditation though the Joint Commission as well as Patient Centered Medical Home recognition (National Committee of Quality Assurance). Chase Brexton Health Care provides comprehensive healthcare services ranging from primary medical care, behavioral health, dental, vision, social work, and pharmacy services. Patients, who come from a wide range of demographic, socioeconomic backgrounds, are served at five health centers in Baltimore City, Randallstown (Baltimore County), Columbia (Howard County), Glen Burnie (Anne Arundel County) and Easton (Talbot County). Additionally, patients are served at Sheppard Pratt's Way Station office (located in Howard County). Chase Brexton Health Care also operates as the provider of the student health services at the Maryland Institute College of Art in Baltimore City. Over 350 staff members work as a team delivering exceptional care and empowering patients to live their healthiest lives. Chase Brexton Health Care patients receive treatment in seven practice sites and reside in 157 ZIP Codes in Baltimore City, and the numerous counties they serve.

MAJORITY AND PRIMARY SERVICE AREAS

The analysis of Chase Brexton Health Care's community data utilizes ZIP code tabulation areas (ZCTAs) instead of traditional ZIP codes. The United States Postal Service uses traditional ZIP codes to indicate areas of mail delivery but may include an unpopulated ZIP code, which makes it difficult to derive demographic information. The U.S. Census Bureau uses ZCTAs to provide summary statistics and get better definitions of neighborhood boundaries. The communities located within the ZCTAs are varied and wide. The information from the Chase Brexton Health Care UDS provides the geographical distribution of where patients indicate their residence by zip code (Appendix B).

- Anne Arundel County (Glen Burnie)
- Baltimore City (Mt. Vernon, [flagship location])
- Baltimore County (Randallstown)
- Howard County (Columbia State, Way Station and WIC Health Department)
- Talbot County (Easton Center)

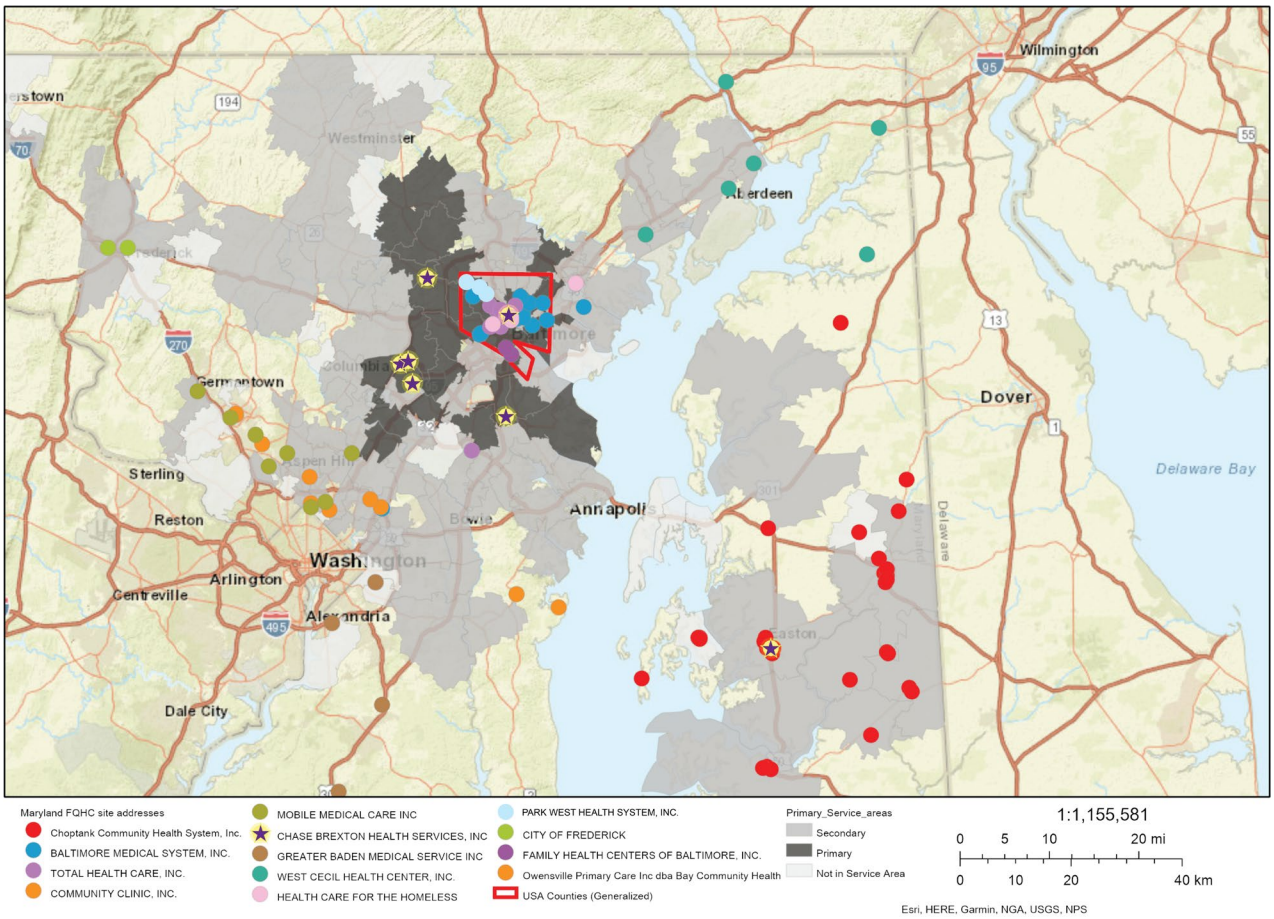
Table 2

Chase Brexton Health Care Services by Location

Services	Anne Arundel County	Balitmore City	Baltimore County	Howard County	Talbot County
Behavioral Health: Therapy/ Substance Use	√	√	√	√	---
Dental	√	√	√	√	√
Gender Affirming Care	√	√	√	√	√
HIV & Infection	√	√	√	√	√
Laboratory	√	√	√	√	√
LGBTQ Health	√	√	√	√	√
Ob/Gyn	√	√	√	√	√
Pharmacy	√	√	√	√	√
Primary Care-Adults	√	√	√	√	√
Primary Care-Pediatric	√	√	√	√	√
Psychiatry	√	√	√	√	√
Social Work	√	√	√	√	√

Source: Chase Brexton Health Care website, September 16, 2021

Map 1: Primary and Secondary Service Areas



In the 2020 Uniform Data System (UDS) that is reported to Health Resources and Services Administration (HRSA), Chase Brexton Health Care served 35,389 patients residing in over 131 ZIP codes across Maryland. The primary service area was in 32 ZIP codes and served 26,546 patients (see Appendix A). A Health Professional Shortage Area (HPSA) can be geographic areas, populations, or facilities. These areas have a shortage of primary, dental, or mental health care providers. Medically Underserved Areas (MUAs) or Medically Underserved Populations (MUPs) are geographic areas and populations with a lack of access to primary care services. The MUA/MUP designations help establish community health centers in an area (HRSA, n.d.).

MUAs have a shortage of primary care health services within geographic areas can include a county, neighboring counties, group of urban census tracts or group of civil divisions. MUPs have a shortage of primary care health services for a specific population subset within a geographic area. These groups may face economic, cultural, or language barriers to health care. Examples can include people who are low income, eligible for Medicaid, experiencing homelessness, or migrant farm workers (HRSA, n.d.).

SECONDARY SERVICE AREA

As a large secondary service area, Chase Brexton Health Care served 8,843 people spanning 99 ZIP code areas. The service area is quite diverse encompassing numerous counties and towns across Maryland. Examples include but are not limited to Anne Arundel (Annapolis, Glen Burnie, Pasadena), Baltimore (Reisterstown, Chase, Dundalk, Essex), Carroll (Hampstead, Westminster), Dorchester (Cambridge), Frederick (New Market, Frederick City), Howard County (Laurel, Columbia, Elkridge), Harford (Edgewood, Abingdon), Prince George's (Greenbelt, Hyattsville, Capital Heights), Worcester (Berlin).

COMPETITORS IN THE SERVICE AREA

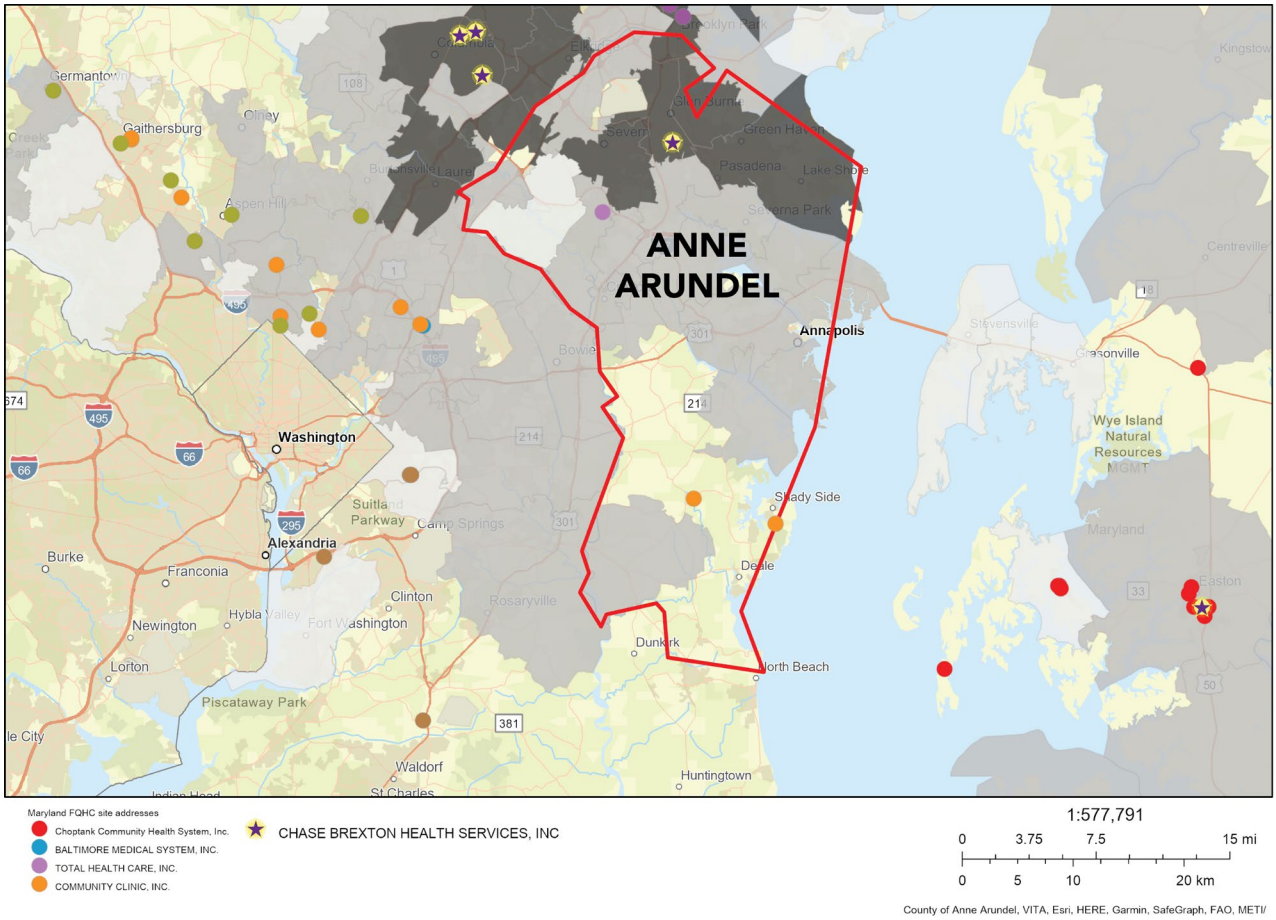
According to the HRSA, health care centers located in the same or adjacent service areas are required to collaborate for the care of the underserved population to create a community-wide service delivery system (HRSA, 2021). Health Centers define their service area and target population based on the census tracts and ZIP codes of their patients. They are required to identify other safety net providers such as other FQHCs, public hospitals, public health departments, and rural health centers.

HEALTH CENTER LOCATIONS

ANNE ARUNDEL COUNTY

In Anne Arundel County, Chase Brexton Health Care's center is located at 200 Hospital Drive, Glen Burnie, Maryland. The closest hospital system is University of Maryland Baltimore Washington Center (0.1 miles). The closest FQHC is Total Health Care (10.3 miles). The Anne Arundel Health Department is in Annapolis (16.5 miles).

Map 2: Anne Arundel County

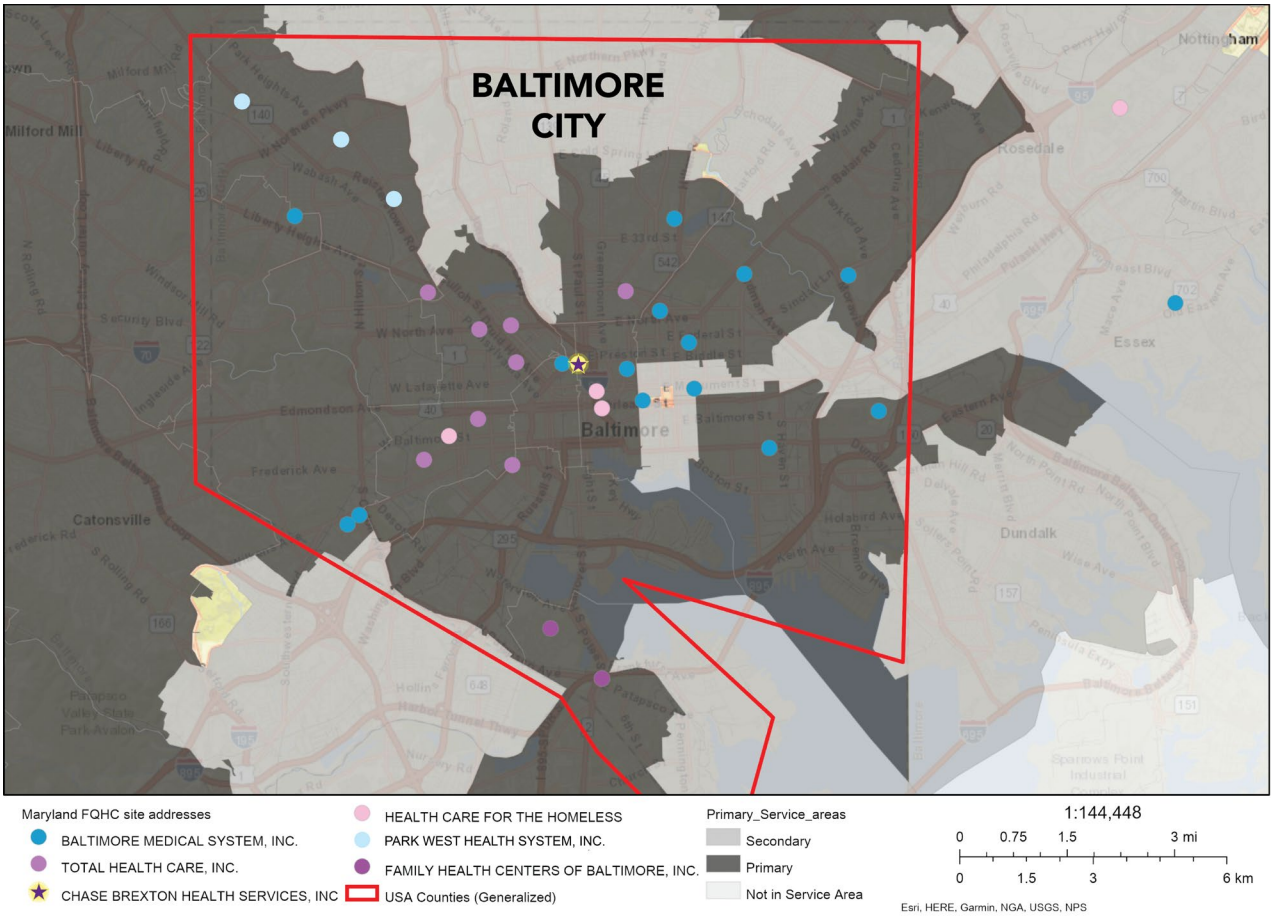


Chase Brexton Health Care's Glen Burnie center serves patients within 21 ZIP codes in Anne Arundel County, as reported within the 2020 UDS. The service area boundaries, as defined by the U.S. Census Bureau through the ZCTAs, includes three MUAs designated by the HRSA: Meade Heights Service Area (ZCTA 07359), North Anne Arundel Service Area (ZCTA 06204), and Medicaid Central Annapolis Service Area (ZCTA 01499). It also operates in a HPSA for primary care for Upper Anne Arundel and Lower Baltimore Counties (ZCTA 07565).

BALTIMORE CITY

In Baltimore City, Chase Brexton Health Care's Mt. Vernon center, located at 1111 N. Charles Street, is the flagship location for the organization. In addition, Chase Brexton is the provider of health services on the campus of The Maryland Institute of Art. Also located near Chase Brexton Health Care's flagship location are five other FQHCs: Baltimore Medical System (2.6 miles - East Baltimore Medical Center, East Baltimore), Family Health Centers of Baltimore (4.8 miles - Cherry Hill, Brooklyn), Health Care for the Homeless (1.1 miles), Park West Medical (6.2 miles - Park Heights, West Baltimore), and Total Health Care (1.6 miles - Kirk/ North Baltimore). In addition to the FQHCs in Baltimore City, there are several hospitals within a 3 mile radius of the flagship center: Mercy Hospital (0.7 miles), University of Maryland Medical Center (1.6 miles), Johns Hopkins Hospital (2.1 miles), and MedStar Union Memorial (2.1 miles).

Map 3: Baltimore City



Chase Brexton Health Care's Mt. Vernon location serves patients within 23 ZIP codes in Baltimore City, as reported within the 2020 UDS report. While there are numerous healthcare centers and providers in Baltimore City, the accessibility of services for low-income populations is limited, as evidenced by the 14 HRSA-designated HPSAs for primary care throughout the city. The ZCTA service areas include the following HRSA-designated MUAs: Baltimore City Service Areas (ZCTAs 01483 – 01488, 01490 and 01491), Brooklyn Curtis Bay (ZCTA 07966), Cross Country (ZCTA 07794), Frankford (ZCTA 07972), Glenwood Service Area (ZCTA 06119), Irvington (ZCTA 07352), and West Baltimore City Service Area (ZCTA 07974) (HRSA, MUA, 2021).

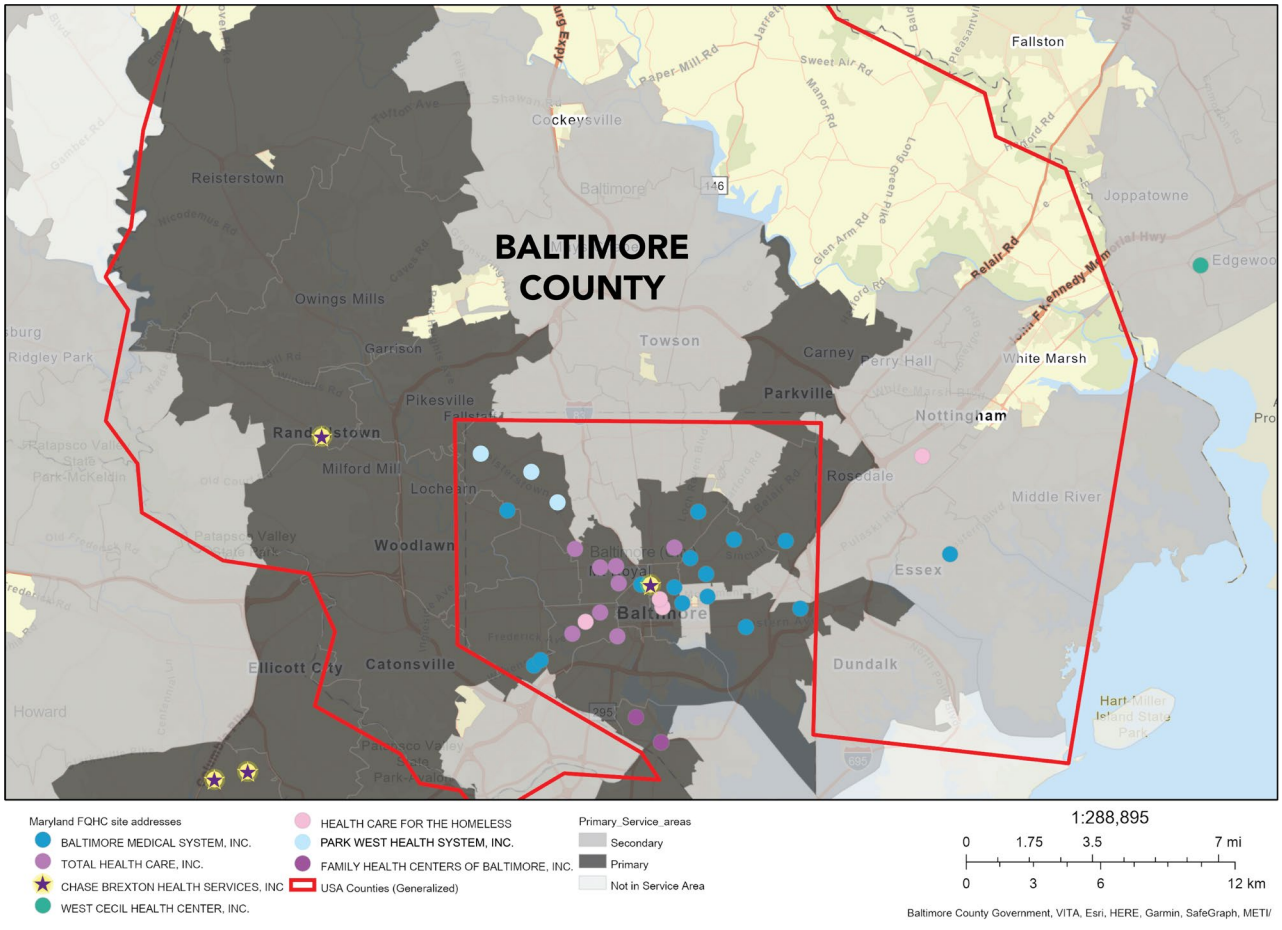
Moreover, 62.0% of the population are racial and ethnic minorities, who are disproportionately impacted by poverty, incarceration, and untreated behavioral health and substance use disorders, which impede engagement and access to services (U.S. Census Bureau, 2020).

BALTIMORE COUNTY

In Baltimore County, Chase Brexton Health Care is located at 3510 Brenbrook Drive, Randallstown. The closest hospital is LifeBridge Health at 3.7 miles. The Baltimore County Health Department is in Towson (11.4 miles), and Health Care for the Homeless (an FQHC) is located on the east side of Baltimore County (23.9 miles).

Chase Brexton Health Care's Randallstown Center serves patients in 19 ZIP codes in Baltimore County, as reported within the 2020 UDS. The service area also surrounds Baltimore City, and shares similar MUAs and populations, such as the Northwest Baltimore City Service Area (ZCTA 01489) that crosses over into West Baltimore County. The service area also serves the following HPSA for primary care: Upper Anne Arundel and Lower Baltimore Counties. There are two MUAs in Baltimore County: Lansdowne/Highlands (ZCTA 06222) and Middle River (ZCTA 01473). The availability of healthcare services and providers in Baltimore County is adequate, but access to high-quality services for low-income and uninsured/under-insured populations is limited, particularly for populations residing in the more rural areas of Baltimore County.

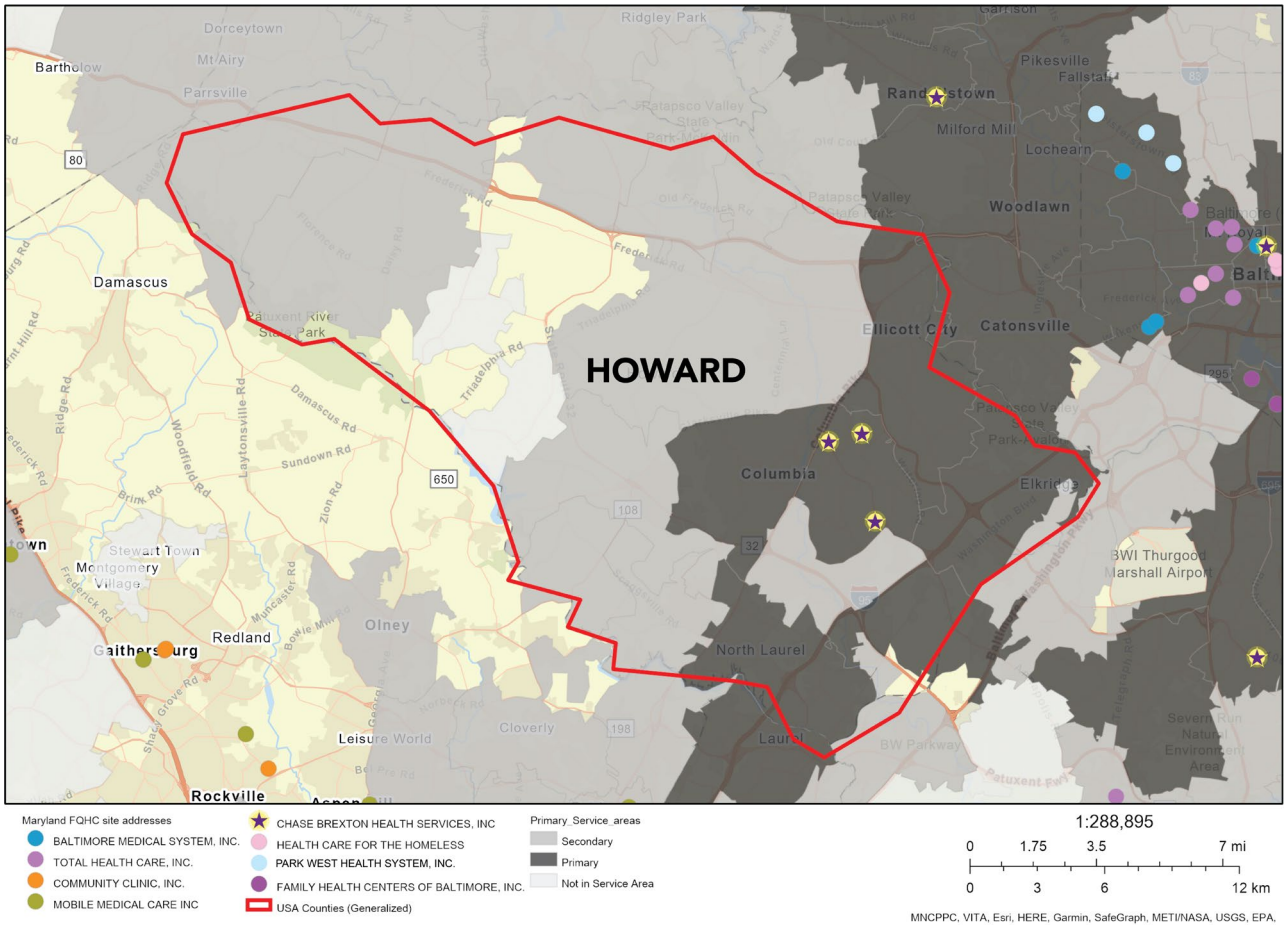
Map 4: Baltimore County



HOWARD COUNTY

Chase Brexton Health Care is in two locations and three practice sites in Howard County: Columbia Center and WIC Dental Clinic (5500 Knoll North Drive, Columbia), and the Chase Brexton Health Care Way Station (9030 State Rt. 108, Columbia), which is co-located within the Howard County Health Department. There are no other FQHCs located in the county. The nearest hospital is Howard County General located 4.1 miles from Chase Brexton Health Care. Howard County Local Health Improvement Coalition, which is part of Howard County Health Department, is located 3.7 miles away.

Map 5: Howard County



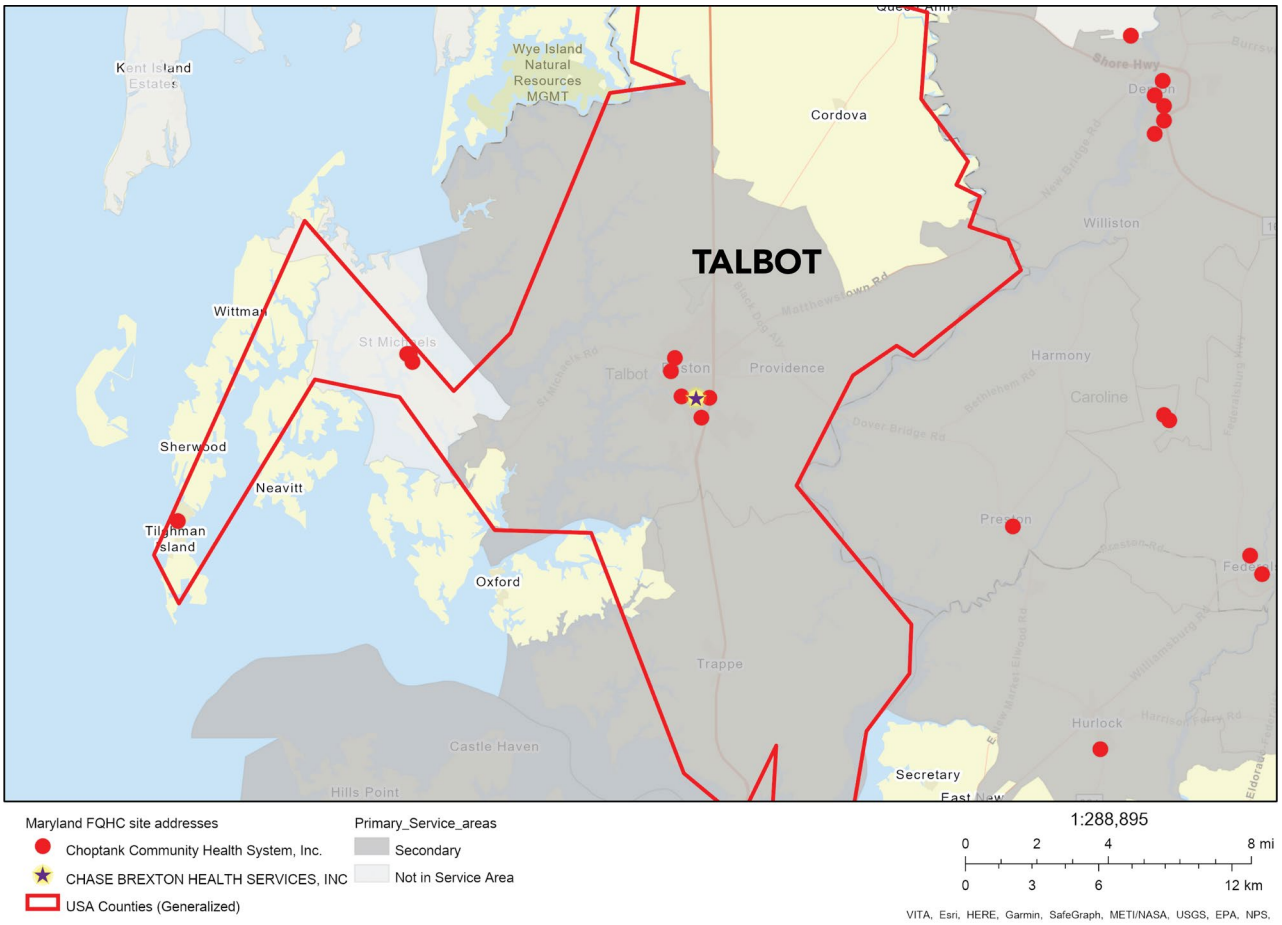
These three locations combined serve 16 ZIP codes in Howard County. There are no HRSA designated MUAs or HPSAs in Howard County. Public transportation is limited in Howard County, but the Columbia Center is located on two bus routes and offers free onsite parking. For patients experiencing transportation and/or financial barriers, Chase Brexton Health Care offers transportation assistance to and from appointments. The Chase Brexton Health Care dental program has expanded to include visits to approximately 8,000 elementary school children across 17 schools in Howard County to offer sealants, fluoride, and tooth care education. Many of the students are medically underserved and may not have access to regular dental care.

TALBOT COUNTY

Easton is in Talbot County on the Eastern Shore of Maryland. The Chase Brexton Health Care of Easton is located at 500 Cadmus Lane, Easton. Talbot County Health Department at 0.9 miles away. The Denton Choptank Health Center is an FQHC located 17.5 miles away and the University of Maryland Shore Regional Health is the closest hospital system located 0.6 miles away.

Chase Brexton Health Care's Easton Center serves 3 ZIP codes in Talbot County, as well as ZIP codes within the following nearby counties along the Eastern Shore of Maryland: Caroline, Kent, Queen Anne's, Dorchester, Wicomico, Worcester, and Somerset. The Easton Center is located on the edge of the MUA-Western Talbot County (ZCTA 07102) and serves patients residing in the Medicaid Eligible Dorchester County MUA (ZCTA 07945). There are also HPSAs for primary care in all counties served, except Talbot. Talbot County is rural, which presents significant geographic and transportation barriers to care.

Map 6: Talbot County



SOCIODEMOGRAPHIC PROFILE

POPULATION

According to the U.S. Census Bureau, American Community Survey (ACS), 2015–2019 (5-year estimates) data, of the areas served by Chase Brexton Health Care, Baltimore County (828,018) was by far the most populous area and Talbot County (37,167), has the lowest population density. Baltimore County has a total land area of 598.4 square miles and a population density of 1,383.8 per square mile. Females make up 52.6% of the population and males make up 47.4%. Its population generally trends older with the median age of 39.2, which is higher than the state median age of 38.7 years.

On the other hand, Talbot County has a total land area of 268.6 and a population density of 138.4 per square mile. Females make up 52.5% of the population and males make up 47.4%. The median age is 49.7 years, which skews older than the other jurisdictions.

Within the assessment area, Baltimore City is the second most populous jurisdiction in Maryland with a total land area of 80.95 square miles and a population density of 7,523.9 per square mile. Females make up 53.0% of the population and males make up 46.9%. The median age is 35 years.

Anne Arundel County has the second largest total land area of 414.78 square miles and an estimated population density of 1,377.3 persons per square mile. Females make up 50.5% of the population and males make up 49.5%. The population generally trends younger with the median age of 38.5 years.

In Howard County, residents have a median age of 38.7 years. Howard County has a total land area of 250.9 square miles and a population density of 1,270.6 per square mile. Females make up 51.0% of the population and males make up 48.9%.

AGE DISTRIBUTION

In alignment with the age distribution at the national and state levels, residents between the ages of 35–64 are the largest age groups in all five jurisdictions with the highest proportion at 41.9% in Howard County. Although all counties skewed towards the adult population, the 5–17 age group constituted the second highest proportion of residents in Anne Arundel County at 16.2%, Baltimore County 15.7%, and Howard County 18.5%. Baltimore City at 19.0%, and Talbot County 24.4%, had a noticeably higher percentage of residents aged 25–34 and 65 and older, respectively (U.S. Census Bureau, American Community Survey, 2015–2019).

Table 3:
Age Distribution by United States, State, and County

Jurisdiction/Age	Total Pop	Under 5	5–17yrs	18–24yrs	25–34yrs	35–64yrs	65–84yrs	85+ yrs
Anne Arundel County	571,275	6.2%	16.2%	8.7%	14.2%	40.3%	12.8%	1.6%
Baltimore County	828,018	5.9%	15.7%	8.9%	13.8%	38.9%	14.3%	2.5%
Howard County	318,855	5.9%	18.5%	8.0%	12.2%	41.9%	11.9%	1.5%
Talbot County	37,167	4.5%	14.0%	6.4%	9.3%	37.4%	24.4%	4.1%
Baltimore City	609,032	6.4%	14.2%	9.8%	19.0%	37.0%	11.9%	1.7%
Maryland	6,018,848	6.1%	16.2%	8.9%	13.8%	40.0%	13.2%	1.8%
United States	324,697,795	6.1%	16.5%	9.4%	13.9%	38.4%	13.7%	1.9%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

POPULATION BY RACE AND ETHNICITY

With the exception of Baltimore City, each jurisdiction in the assessment, has a racial profile that is predominantly White. Baltimore City has the largest percentage of Black residents at 60.6%. The largest percentage of Asian residents at 18% is in Howard County. American Indian and Native Hawaiian each make up less than one percent in all the jurisdictions. The highest percentages of the Hispanic/Latino population are in Anne Arundel County at 7.8%, followed by Howard County at 6.9% (U.S. Census Bureau, American Community Survey, 2015–2019).

Table 4:
Race and Ethnicity by Jurisdiction

Indicator		Jurisdiction				
		Anne Arundel County	Baltimore City	Baltimore County	Howard County	Talbot County
Race	White	72.7%	35.%	60.6%	57.0%	82.9%
	Black	16.8%	62.4%	28.9%	18.9%	10.5%
	Asian	3.8%	2.6%	6.0%	18.1%	1.4%
	Native American / Alaska Native	0.2%	0.3%	0.3%	0.3%	0.2%
	Some Other Race	2.4%	1.8%	1.3%	1.3%	0.7%
	Multiple Races	4.1%	2.5%	2.8%	4.4%	4.4%
Ethnicity	Hispanic or Latino Population	7.8%	5.2%	5.4%	6.9%	6.8%
	Non-Hispanic or Latino Population	92.1%	94.7%	94.6%	93.1%	93.2%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

CHANGE IN TOTAL POPULATION

Based on the U.S. Census Bureau Decennial Census, all jurisdictions excluding Baltimore City experienced a population growth between 2000 and 2010. Howard County experienced the most growth at 15.8% while Baltimore City experienced a decline of 4.6%. This indicator is important because a significant change in the population can impact the adequate use and availability of community-based resources as well as access to health (Table 5).

Table 5:
Percent Population Change (2000-2010)

Jurisdiction	Anne Arundel County	Baltimore City	Baltimore County	Howard County	Talbot County	Maryland	United States
Population Change, 2000–2010	9.8%	-4.6%	6.7%	15.8%	11.7%	9.0%	9.7%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

The US Census Bureau, Decennial Census, 2000–2010 data showed that of all the identified racial groups, Asians experienced the most growth within all the jurisdictions, most significantly in Howard County at 116.5%. This trend aligned with population changes at the state and national levels that showed that the Asian population increased the most at 51.2% and 43.7%, respectively. The White population had the least percentage increases in the population in almost all the jurisdictions except for Talbot County. Also, in Talbot County, Blacks had a 7.0% decline (Table 6).

Table 6:
Percent Population Change (2000-2010) by Race

Jurisdiction	White	Black	American Indian or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race
Anne Arundel County	1.9%	25.7%	14.4%	63.5%	56.1%	203.6%	88.9%
Baltimore City	-10.7%	-5.5%	8.3%	45.7%	23.4%	159.1%	35.6%
Baltimore County	-7.3%	38.4%	36.5%	67.4%	31.8%	173.2%	79.2%
Howard County	-3.0%	40.5%	48.5%	116.5%	41.4%	107.2%	92.4%
Talbot County	10.9%	-7.0%	8.3%	74.8%	-51.1%	297.7%	133.2%
Maryland	-0.9%	15.1%	32.4%	51.2%	37.1%	116.5%	59.0%
United States	5.8%	15.4%	22.6%	43.7%	47.4%	24.2%	32.6%

Source: U.S. Census Bureau, Decennial Census, 2000–2010

POPULATIONS WITH LIMITED ENGLISH PROFICIENCY (LEP)

This indicator reports the percentage of the population aged five years and older who speak a language other than English at home and speak English less than "very well." Baltimore County had the greatest number of residents at least five years old who speak a language other than English at home. However, Howard County had the highest percentage at 7.4%, which was higher than the state rate of 7.0%. This was followed by Baltimore County at 5.3%, Anne Arundel at 3.8%, Baltimore City at 3.6%, and Talbot County at 3.2%. This indicator is relevant because an inability to speak English well creates barriers to healthcare access and challenges health literacy (U.S. Census Bureau, American Community Survey, 2015–2019).

Table 7:
Population Age 5+ with Limited English Proficiency

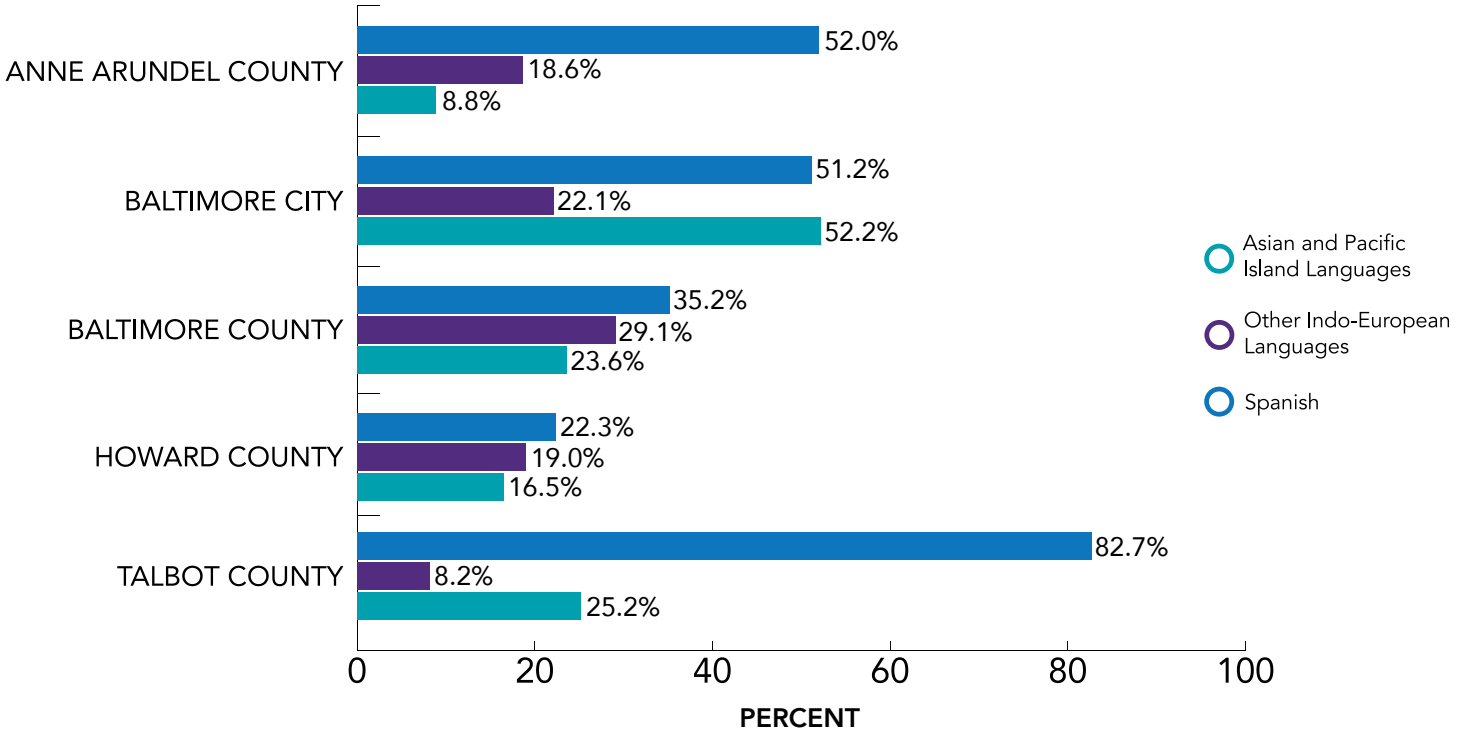
Jurisdiction	Population Age 5+	Population Age 5+ with Limited English Proficiency	Population Age 5+ with Limited English Proficiency, Percent
Anne Arundel County	536,096	20,390	3.8%
Baltimore City	569,973	20,926	3.7%
Baltimore County	779,029	40,866	5.3%
Howard County	299,917	22,134	7.4%
Talbot County	35,506	1,082	3.1%
Maryland	5,653,980	394,630	7.0%
United States	304,930,125	25,615,365	8.4%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

Data revealed that Whites reported higher rates of limited English proficiency (LEP) populations in all the jurisdictions except in Howard County where Asians reported the highest population rate of 7.5%.

Within LEP populations, Spanish was the most spoken language at home in all the jurisdictions under review. The use of Spanish was significantly higher in Talbot County at 82.7%, followed by Anne Arundel at 52.0%, Baltimore City at 51.2%, Baltimore County 35.2%, and Howard County 22.3% (Chart 6).

Chart 6:
Populations with LEP - Languages Spoken at Home

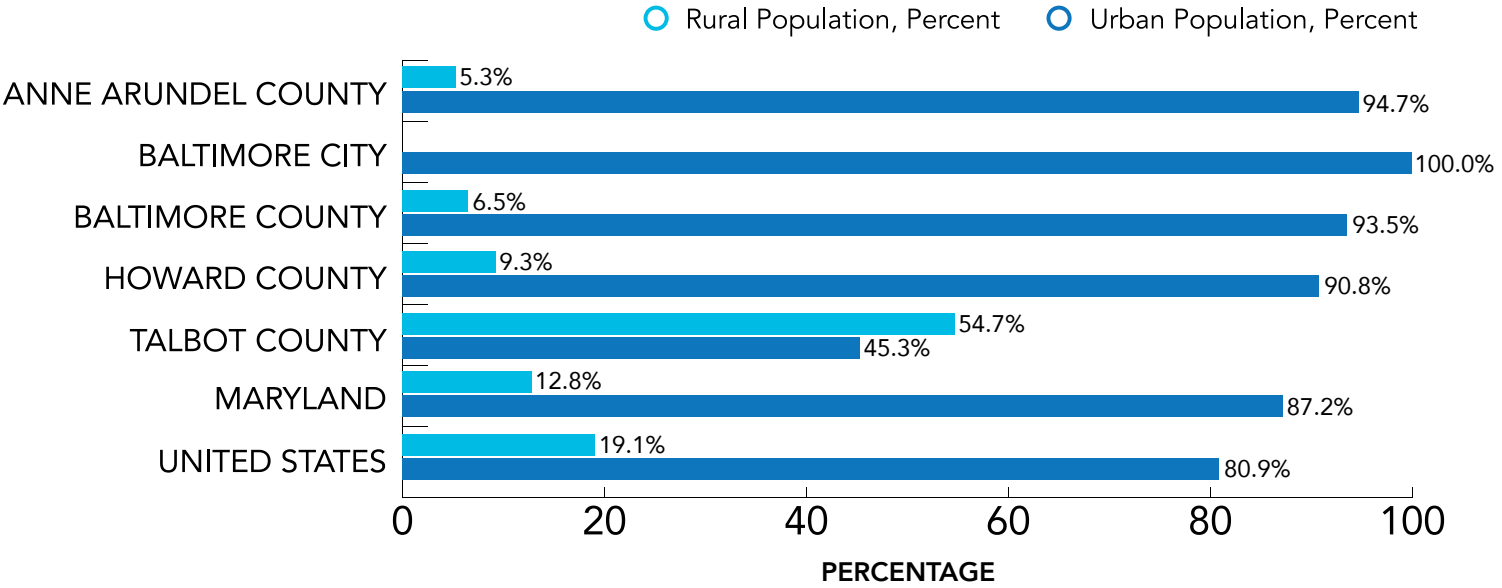


Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

URBAN AND RURAL POPULATIONS

Baltimore City is designated as 100% urban while Talbot County is the most rural of all the jurisdictions under review with a designation of 45.3% urban and 54.7% rural. On the other hand, 93.5% of the population in Baltimore County are in urban areas and 6.5% are in rural areas. Howard County has a 90.8% urban population and rural population of 9.3% (U.S. Census Bureau, Decennial Census, 2010).

Chart 7:
Urban and Rural Population



Source: U.S. Census Bureau, Decennial Census, 2010. Courtesy: Sparkmap.org

SPECIAL POPULATIONS

VETERANS

Talbot County has a veteran population of 10.5%, which is the highest percentage when compared to the other jurisdictions. This was also higher than the state and national rates of 7.8% and 7.2%, respectively. Howard County's veteran population is reported at 7.3%, Baltimore County at 6.5%, and Baltimore City at 5.8%. Veterans comprise a significant proportion of the nation's population and their demographic trends and health needs may vary from those of the general population (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

LESBIAN, GAY, BISEXUAL, TRANSGENDER, AND QUEER/QUESTIONING (LGBTQ)

Based on the Chase Brexton Health Care 2020 Annual Report, 15.0% of its patient populations identify as LGBTQ. These trends are higher when compared to the state and national rates of 4.2% and 4.5% respectively. There are an estimated total number of 151,000 individuals in the workforce in Maryland who identify as LGBTQ making up 5.0% of the workforce (Shoshana & Goldberg, 2020). In general, LGBTQ communities face differences in disease burden and healthcare quality, which increases the risks for poor health and barriers to diagnosis and treatment. The population is also likely to face a higher burden of poor mental health due to stigma and societal biases, which contributes to less-than-optimal health outcomes (Billy A. et al., 2020).

Table 8:
Estimated number of LGBT adults in the Maryland

Jurisdiction	% LGBT	LGBT (Total)	LGB (Total)	LGB (Cisgender)	LGB (Trans)	Transgender (Total)	Transgender (Straight/ Other)	Transgender (LGB)
Maryland	4.2%	198,000	182,000	175,000	6,000	22,300	16,000	6,000
United States	4.5%	11,343,000	10,338,000	9,946,000	392,000	1,397,150	1,005,000	392,000

Source: Shoshana & Goldberg, 2020.

SOCIAL DETERMINANTS OF HEALTH

Healthy People 2030 defines social determinants of health (SDoH) as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks." (Healthy People 2030, n.d.).

TRANSPORTATION

Amongst the jurisdictions under review, at 28.9%, Baltimore City had a significantly higher rate of households with no motor vehicles. This was well above the state and national rates of 8.9% and 8.6%, respectively. Baltimore County had the second highest rate at 7.7% while Anne Arundel had the lowest at 3.6% (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

Table 9:
Transportation - People without a Motor Vehicle

Jurisdiction	Total Occupied Households	Households with No Motor Vehicle	Households with No Motor Vehicle, Percent
Anne Arundel County	209,814	7,615	3.6%
Baltimore City	239,116	69,105	28.9%
Baltimore County	313,519	24,245	7.7%
Howard County	114,170	4,335	3.8%
Talbot County	16,826	815	4.8%
Maryland	2,205,204	197,611	9.0%
United States	120,756,048	10,395,713	8.6%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

EDUCATION

Of all the counties under review, Baltimore City had the lowest high school graduation rate at 70.0%, which is lower than the national and state rates at 87.7% and 87.0%, respectively. Talbot County had the highest graduation rate at 93.9% closely followed by Howard County at 93.0%, and by Baltimore County at 88.0%. Looking at the percentage of children ages 3-4 enrolled in preschool, Talbot County had the highest enrollment level at 63.0% while Baltimore County had the lowest level at 48.3%. An individual's level of education affects their health status, as educated residents are likely more aware of their own health status and the health status of their family (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

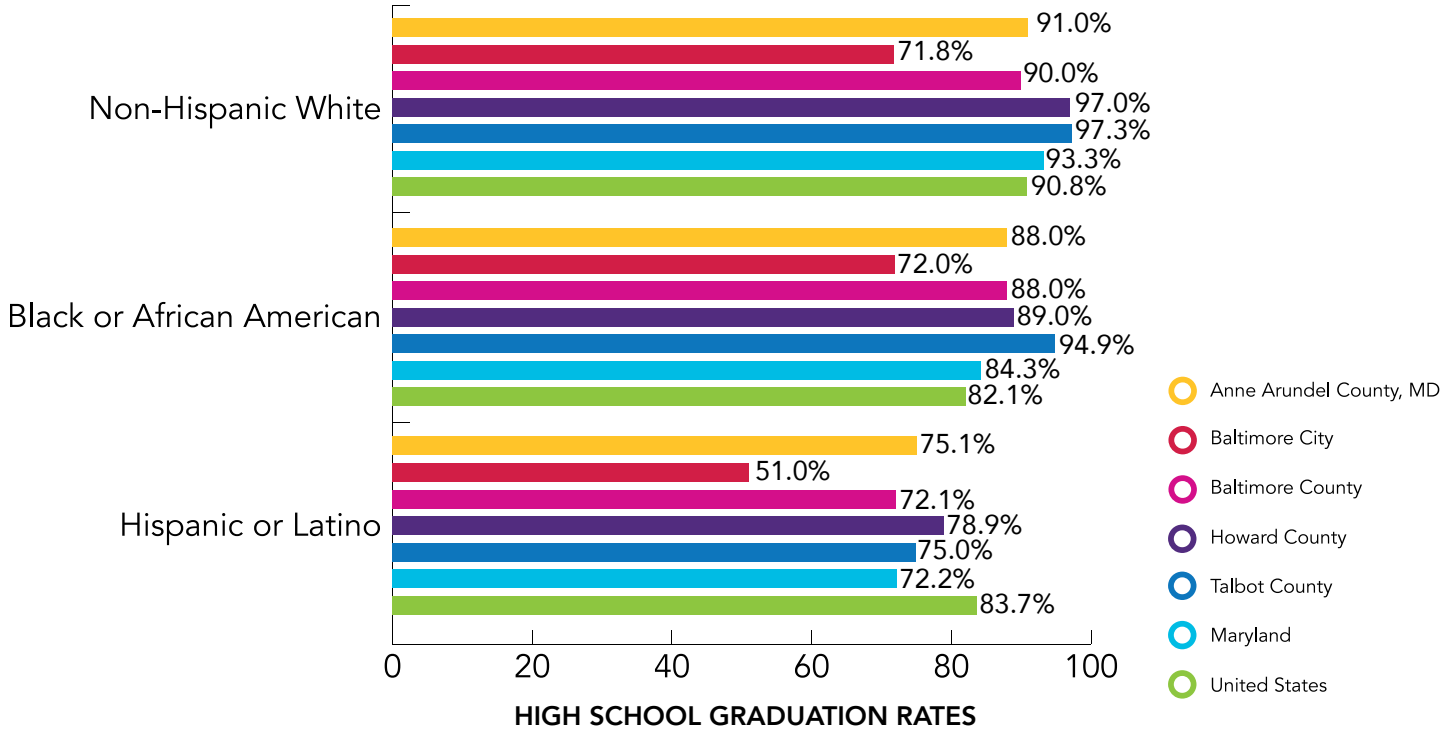
Table 10:
School Enrollment and High School Graduation Rates by Jurisdiction

Jurisdiction	Population Age 3-4	Population Age 3-4 Enrolled in School	Population Age 3-4 Enrolled in School (%)	High School Graduation Rate
Anne Arundel County	14,645	7,823	53.4%	88.0%
Baltimore City	16,500	8,535	51.7%	70.0%
Baltimore County	20,341	9,844	48.4%	88.0%
Howard County	7,955	4,793	60.3%	93.0%
Talbot County	633	399	63.0%	93.9%
Maryland	150,743	75,397	50.0%	87.0%
United States	8,151,928	3,938,693	48.3%	87.7%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

Data revealed that racial disparities exist within the jurisdictions with the Hispanic/Latino population reporting lower high school graduation rates across all five jurisdictions in alignment with state and national trends. While Baltimore City had the lowest graduation rates amongst all the races when compared to the other counties, the Hispanic/Latino population had the lowest rates overall at 51.0% (Chart 8).

Chart 8:
Education by Race



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

FOOD INSECURITY

A healthy food environment ensures that residents can purchase nutritious food that is affordable and conveniently located. According to Feeding America 2020 data, Baltimore City, at 20.0%, had the highest percentage of residents who are food insecure, which is higher than the state rate of 10.0%. This was followed by Baltimore County at 10.0%, Talbot County at 9.0%, Anne Arundel County at 7.0%, and Howard County at 6.0% (Feeding America, 2020).

Table 11:
Food Insecurity Comparison - Percent of Food Insecurity

Jurisdiction	# Of Food Insecure Adults	%	Additional Healthcare costs associated with food insecurity
Anne Arundel County	29,650	7.0%	$60.4M
Baltimore City	96,310	20.0%	$222.8M
Baltimore County	66,890	10.0%	$146.2M
Howard County	14,470	6.0%	$27.5M
Talbot County	2,610	9.0%	$5.3M
Maryland	455,430	10.0%	$925.7M

Source: Feeding America, 2020 Food Insecurity Projections.

Baltimore City also had the highest percentage of its population receiving benefits from the Supplemental Nutrition Assistance Program (SNAP). This program provides nutrition benefits to low-income individuals and families that are used at stores to purchase food.

Table 12:
Percent of Population Receiving SNAP

Report Area	Total Population	Population Receiving SNAP Benefits	Population Receiving SNAP Benefits, Percent
Anne Arundel County	571,592.00	36,206	6.3%
Baltimore City	609,841.00	176,445	28.9%
Baltimore County	828,603.00	91,757	11.1%
Howard County	319,374.00	16,872	5.3%
Talbot County	37,020.00	3,811	10.3%
Maryland	6,024,891.00	654,256	10.9%
United States	325,147,121.00	40,771,688	12.5%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017. Courtesy: SparkMap.org

In addition, looking at the children eligible for free or reduced-price lunches in schools, 100% of public-school students in Baltimore City were eligible, which is higher than the state average of 46.3%. This is the federal National School Lunch Program and eligible students are from families with incomes under 185% (to be eligible for discounted lunches) or under 130% (eligible for free lunch) of the U.S. federal poverty threshold. In Baltimore County, 49.6% of public-school students were eligible, 32.0% in Anne Arundel County, 19.2% in Howard County, and 48.8% in Talbot County. The state and national rates were 46.3% and 49.5%, respectively.

UNEMPLOYMENT RATE

According to the U.S. Department of Labor, Bureau of Labor Statistics, 2021, at 8.4%, the unemployment rate for Baltimore City was higher than the state and national rates of 6.7% and 6.1%, respectively. Baltimore County's rate was 6.5%, Talbot's 5.8%, Anne Arundel's 5.6%, and Howard's at 5.2%. This indicator is important since unemployment can correlate with financial hardship thereby increasing barriers to health care access and general well-being (Table 13).

Table 13:
Unemployment Rates

Jurisdiction	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Anne Arundel County	311,124	293,686	17,438	5.6%
Baltimore City	281,460	257,791	23,669	8.4%
Baltimore County	446,498	417,322	29,176	6.5%
Howard County	185,535	175,842	9,693	5.2%
Talbot County	18,023	16,985	1,038	5.8%
Maryland	3,161,816	2,951,491	210,325	6.7%
United States	163,236,883	153,265,575	9,971,307	6.1%

Source: U.S. Bureau of Labor Statistics, 2020. Labor force characteristics by race and ethnicity, 2019

Based on the Workforce Innovation and Opportunity Act 2019 workforce data, racial disparities were identified within each jurisdiction. Blacks reported significantly higher rates of unemployment in all the jurisdictions mirroring state and national trends. The greatest disparities were in Baltimore City where Blacks had an unemployment rate of 11.5% followed by Hispanics at 7.0% (Table 14).

Table 14:
Unemployment by County & Race/Ethnicity: 2019

Jurisdiction	White	Black	Asian	Hispanic
Anne Arundel	3.8%	5.5%	3.4%	5.2%
Baltimore City	3.7%	11.5%	2.8%	7.0%
Baltimore County	4.2%	5.9%	4.3%	4.0%
Howard County	3.2%	5.5%	3.0%	5.5%
Talbot County	2.5%	7.9%	2.7%	1.2%
Maryland	3.9%	7.5%	3.6%	4.9%
United States	3.3%	6.1%	2.7%	4.3%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

POVERTY - POPULATION BELOW 100% FPL

A review of the U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019 data revealed that at 21.2%, Baltimore City had the highest percentage of individuals living in households with income below the Federal Poverty Level (FPL). While Baltimore County had 9.0%, Talbot County had 8.6%, Anne Arundel County had 5.7%, and Howard County at 5.0% had the least percentage of individuals living in households with income below the FPL. Poverty is an indicator that can be a key determinant of an individual's health outcomes due to the limitations associated with it such as limited access to health services, the inability to afford healthy food, education, and/or housing.

Table 15:
Population in Poverty by Ethnicity Alone

Jurisdiction	Hispanic or Latino	Not Hispanic or Latino	Hispanic or Latino, Percent	Not Hispanic or Latino, Percent
Anne Arundel County	4,179	27,908	9.7%	5.5%
Baltimore City	7,071	117,365	23.0%	21.1%
Baltimore County	7,912	65,149	18.2%	8.5%
Howard County	1,506	14,299	6.9%	4.9%
Talbot County	459	2,720	18.3%	8.0%
Maryland	75,291	464,700	12.7%	8.8%
United States	11,256,244	31,254,599	19.6%	12.1%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

Table 16:
Population in Poverty by Race Alone

Jurisdiction	White	Black or African American	Native American or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race
Anne Arundel County	4.7%	10.0%	14.6%	4.2%	2.3%	11.9%	5.8%
Baltimore City	12.5%	25.6%	34.8%	19.1%	31.9%	23.9%	15.6%
Baltimore County	7.5%	10.9%	12.9%	9.5%	6.2%	25.8%	14.5%
Howard County	3.3%	9.6%	4.4%	5.1%	0.0%	6.6%	6.6%
Talbot County	7.1%	17.2%	12.8%	7.0%	No data	44.1%	13.1%
Maryland	6.7%	13.3%	15.1%	7.0%	7.1%	14.5%	10.9%
United States	11.2%	23.0%	24.9%	10.9%	17.5%	21.0%	16.7%

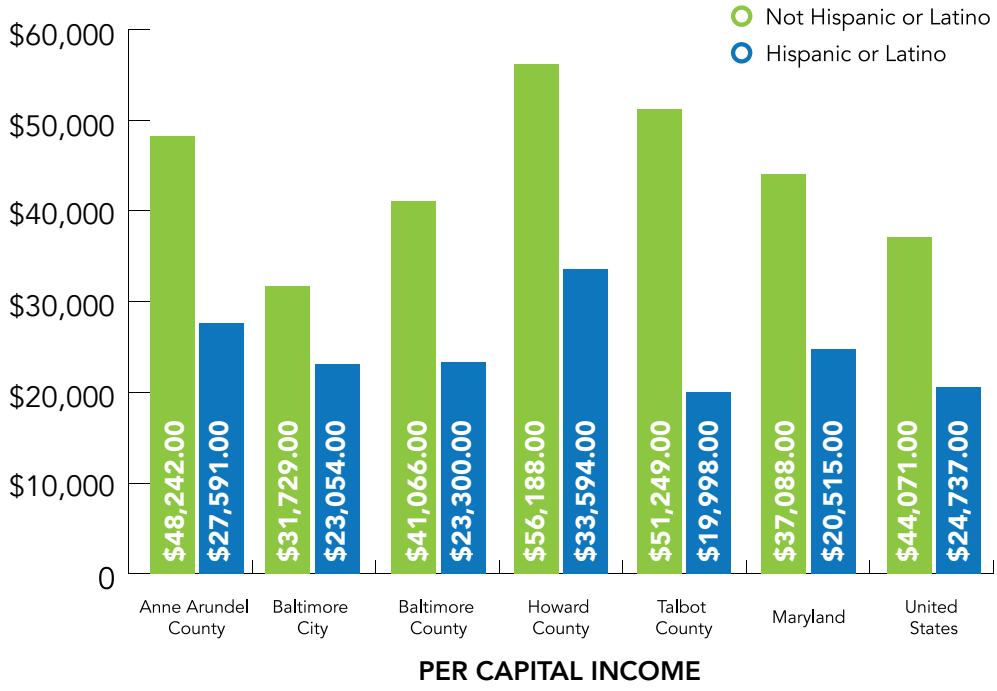
Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

MEDIAN HOUSEHOLD AND PER CAPITA INCOME

The median household income indicator is based on the latest five-year American Community Survey estimates and includes the householder and the incomes estimates of individuals 15 years and older in the household. Howard County had the highest median household income at $121,160 followed by Anne Arundel County at $100,798, with both counties' medians higher than the state and national median incomes of $84,805 and $62,843, respectively. On the other hand, Baltimore County at $76,866, Talbot County at $73,547, and Baltimore City at $50,379 skewed on the lower end (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

When looking at the per capita income, which includes the computed mean income from wages and salaries of residents within a jurisdiction, there were disparities identified. In alignment with state and national trends, the per capita incomes for non-Hispanic or Latino populations were significantly higher than the per capita incomes for Hispanic or Latino populations in all five jurisdictions. This disparity was more pronounced in Talbot County where the per capita income for non-Hispanic or non-Latino populations was $51,249 compared to $19,998 for the Hispanic or Latino populations (Chart 9).

Chart 9:
Per Capita Income by Ethnicity Alone



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

Data reveal that there are significant income disparities within each of the jurisdictions when compared to each other and to the state. Disparities by race alone were also observed with Whites in all the five jurisdictions reporting higher per capita incomes than all the other races (Table 17).

Table 17:
Per Capita Income by Race Alone

Jurisdiction	White	Black or African American	Native American or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race
Anne Arundel County	$51,661	$35,584	$39,529	$44,453	$16,522	$23,949	$22,744
Baltimore City	$49,284	$22,747	$39,977	$28,085	$23,566	$20,347	$23,774
Baltimore County	$46,149	$31,910	$33,380	$28,299	$20,494	$18,760	$20,458
Howard County	$62,116	$42,222	$52,215	$39,780	$74,004	$29,873	$29,259
Talbot County	$53,824	$25,863	$67,068	$40,469	No data	$20,009	$15,271
Maryland	$49,508	$33,006	$45,799	$34,546	$32,684	$20,097	$25,041
United States	$37,326	$23,383	$40,524	$20,844	$24,961	$19,071	$20,296

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

VIOLENT CRIME

Within the assessment region, the annual rate of violent crimes per 100,000 was highest in Baltimore City at 1,800.8 followed by Baltimore County with a rate of 497.3. Talbot County had the lowest rate of violent crimes at 197.5. This indicator is important as it can impact one's ability to live a productive life and limits access to adequate preventive health care services, and physical and recreational resources (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

Table 18:
Violent Crimes Per 100,000 Population

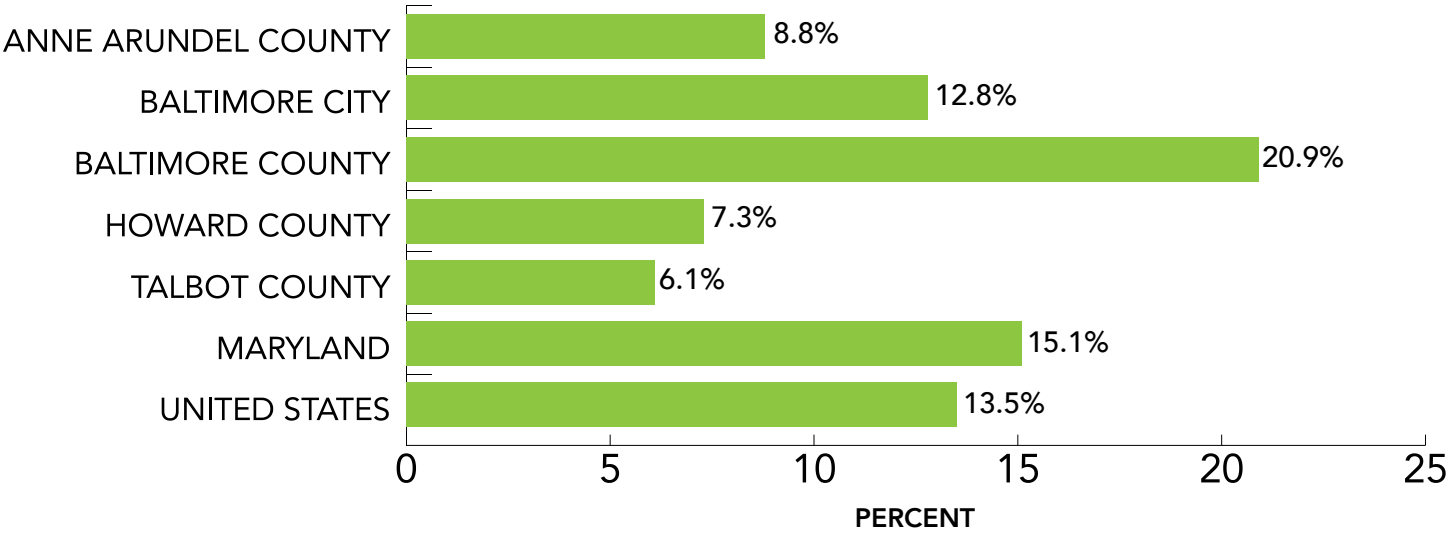
Jurisdiction	Total Population	Violent Crimes, 3-year Total	Violent Crimes, Annual Rate (Per 100,000 Pop.)
Anne Arundel County	567,590	6,799	399.2
Baltimore City	617,618	33,368	1800.8
Baltimore County	831,910	12,413	497.3
Howard County	317,520	3,210	336.9
Talbot County	37,283	221	197.5
Maryland	6,221,642	87,227	467.3
United States	366,886,849	4,579,031	416

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

MIGRATION

At 20.9%, Howard County had the highest percentage of foreign-born population, which is significantly higher than the state and national averages of 15.1% and 13.5%, respectively. This indicator includes all residents that were not United States citizens or nationals at birth. Depending on their length of stay in the county, these populations may face unique challenges that can impact their ability to utilize health care and other social services. One of these issues could be limited English language proficiency, which would be further exacerbated if they reside in linguistically isolated households (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

Chart 10:
Foreign Born Residents



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

HOUSING AND HOMELESSNESS

Baltimore City had significantly higher numbers of homeless individuals with an estimated total of 2,294, compared to the other jurisdictions under review. Baltimore County followed next with 735, Anne Arundel with 302, and Howard County with 201. There was no data reported for Talbot County (The Maryland Interagency Council on Homelessness, 2019).

Table 19:
Homelessness by County

Jurisdiction	2019 Point in Time Count
Anne Arundel County	302
Baltimore City	2,294
Baltimore County	735
Howard County	201
Talbot County	---
Maryland	6,561

Source: The Maryland Interagency Council on Homelessness, 2019

Based on the housing cost burden indicator, which reports the percentage of the households where housing costs are 30% or more of total household income, Baltimore City reported the highest percentage at 38.0% of the populations living in cost-burdened households. This correlates with the rate of homelessness and is higher than the state and national rates of 31.3% and 30.8%, respectively. Baltimore County followed at 30.5%, Talbot County at 30.1%, Anne Arundel County at 28.1%, and Howard County with the lowest percentage populations in cost burdened households at 26.5% (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

CDC SOCIAL VULNERABILITY INDEX

The Social Vulnerability Index (SVI) uses U.S. Census data to determine the relative social vulnerability of every census tract and ranks each tract on 14 social factors and groups them into four related themes (CDC/ATSDR, 2018). The SVI can help emergency response planners and public health officials identify and map the communities that will most likely need support before, during, and after a hazardous event. For each variable, the SVI rank of 0.0 indicates the least vulnerable and a rank of 1.0 indicates the most vulnerable. Based on the SVI scores, Baltimore City and Howard County received a designation of "highly vulnerable" based on their overall minority status theme scores. All jurisdictions scored significantly higher on the minority status theme (Table 20).

Table 20:
Social Vulnerability: Overall Score

Report Area	Socioeconomic Theme Score	Household Composition Theme Score	Minority Status Theme Score	Housing & Transportation Theme Score	Social Vulnerability Index Score
Anne Arundel County, MD	0.1	0.1	0.8	0.4	0.2
Baltimore City, MD	0.7	0.3	0.9	0.9	0.8
Baltimore County, MD	0.2	0.2	0.9	0.6	0.4
Howard County, MD	No data	0.1	0.9	0.2	0.1
Talbot County, MD	0.1	0.4	0.7	No data	0.1
United States	0.3	0.3	0.8	0.6	0.4

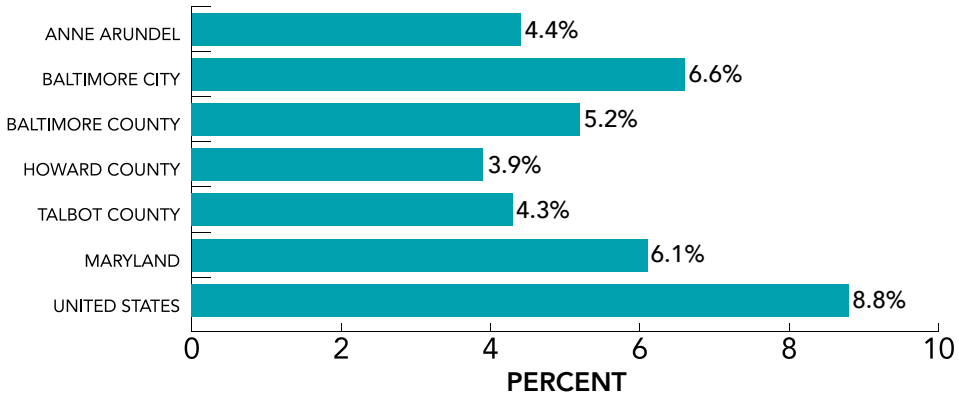
Source: Centers for Disease Control and Prevention (2018). CDC/ATSDR SVI data and documentation download

HEALTH CARE ACCESS

UNINSURED POPULATIONS

The Affordable Care Act (ACA) enacted in 2010 continues to increase access to health care for Maryland residents. Primarily, individuals are eligible for Medicaid benefits if their income is up to 138% of the federal poverty level (FPL). Another option in Maryland is to purchase health insurance through the state's insurance marketplace if one's income is above 138% but below 400% of the FPL. Out of all five jurisdictions, Baltimore City had the highest percentage of uninsured populations at 6.6%, which was higher than the state rate of 6.1%. Howard County, at 3.9%, had the lowest percentage of uninsured populations. The percent of uninsured populations for Anne Arundel, Baltimore, and Talbot counties was 4.4%, 5.2%, and 4.3%. respectively. This indicator is important because uninsured populations may not be able to afford medical treatment or prescription drugs and are also less likely to get routine, preventive exams and screenings (U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019).

Chart 11:
Percent of Uninsured Population



Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

As seen on Table 21, racial disparities exist. In alignment with state trends of 11.2% on identified races, Native Hawaiian or Pacific Islander populations are present with higher rates of uninsured populations in Baltimore County at 30.0%, Anne Arundel County at 10.3%, and Baltimore City at 9.0%. Blacks/African Americans showed higher uninsured populations in Howard County at 5.3%, and Asians with higher populations at 9.3% in Talbot County.

Table 21:
Uninsured Population by Race/Ethnicity

Jurisdiction	White	Black or African American	Native American or Alaska Native	Asian	Native Hawaiian or Pacific Islander	Some Other Race	Multiple Race
Anne Arundel County	2.7%	4.2%	8.6%	6.0%	10.4%	28.9%	3.9%
Baltimore City	3.8%	6.4%	6.7%	7.5%	9.0%	29.1%	4.5%
Baltimore County	3.3%	5.5%	6.0%	6.7%	30.0%	22.1%	6.4%
Howard County	1.6%	5.3%	2.6%	5.0%	0.0%	8.7%	2.7%
Talbot County	2.5%	3.5%	0.0%	9.3%	No data	5.7%	1.2%
Maryland	3.1%	6.0%	7.7%	5.9%	11.2%	29.3%	4.3%
United States	5.9%	10.1%	19.2%	6.7%	10.6%	20.4%	7.7%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

HEALTH PROFESSIONAL SHORTAGE AREA

Health Professional Shortage Area (HPSA) designations are used to identify areas and population groups within the United States that are experiencing a shortage of health professionals (HRSA, 2020). The total number of health professionals relative to the population is the primary factor used to determine a HPSA designation. There are three categories of HPSA designations based on the health discipline that is experiencing a shortage: primary care, dental, and mental health. Of note, the HPSA FTE Short column depicts the number of full-time equivalent (FTE) providers needed to remove the designation. Baltimore City has the most designations across all the service categories with over 140 providers needed to close the gap (Appendix D).

Table 22:
MUA and MUP Designations in the Service Area

Service Category and Jurisdictions	Total MUA/P Designations
Medically Underserved Area (Total)	19
Anne Arundel County	2
Baltimore City	14
Baltimore County	2
Talbot County	1
Medically Underserved Population (Total)	1
Anne Arundel County	1
Medically Underserved Population – Governor's Exception (Total)	1
Anne Arundel County	1

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

MEDICALLY UNDERSERVED AREAS/POPULATIONS

Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) represent areas or populations with limited access to primary care services (HRSA, 2020). Almost all the MUA designations in the service areas were in Baltimore City (14). Anne Arundel County, in addition to two MUAs, also had a MUP designation (Table 22).

HEALTH STATISTICS AND INDICATORS

HEALTH RANKINGS

The 2021 County Health Rankings showed that Baltimore City reported the worst health outcomes and factors among the jurisdictions under review. While the health outcomes depict how long people live and how healthy people feel during their lives, the health factors represent what influences the health of a county. The healthiest county is ranked #1 and the unhealthiest #24 in Maryland for both indicators (Table 23).

Table 23:
2021 County Health Rankings Status out 24 Maryland Jurisdictions

Jurisdiction	Health Outcomes	Health Factors
Anne Arundel County	7	7
Baltimore City	24	23
Baltimore County	16	14
Howard County	2	2
Talbot County	9	1

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (BRFSS), 2021

MORTALITY

According to the 2019 Maryland Vital Statistics Annual Report, the five leading causes of disease-related deaths in Maryland in 2019 were diseases of the heart at 23.1%, cancers at 21.6%, stroke at 5.7%, chronic lower respiratory disease at 4.4%, and diabetes at 2.8%. These have remained relatively steady over the last 10 years. This indicator provides insights into the distribution of premature deaths and leading causes of death, which can enhance strategic decision making to allocate resources to high-risk groups and implement structural interventions to improve community health and well-being.

The table below presents the Maryland Behavioral Risk Factor Surveillance System (BRFSS) 2019 data on the total age-adjusted mortality rate per 100,000 for the state and the jurisdictions under review. It also provides insights into the mortality rates of various chronic diseases and racial disparities that exist there within.

Table 24:
Chronic Disease Indicators: Rates by Jurisdictions

Indicators	Anne Arundel County	Baltimore City	Baltimore County	Howard County	Talbot County	Maryland
"Total Age-Adjusted Mortality Rate (per 100,000)"	713.4*	1019.2*	765.1*	537.8*	625.4*	711.8*
"Age-Adjusted Ischemic Heart Disease Mortality (per 100,000)"	82	123.7	107.1	60.7	73.5	92.1*
"Age-Adjusted Cancer Mortality (per 100,000)"	151.9	196.3*	164	118.5*	123.7*	151.3*
"Age-Adjusted Stroke Mortality (per 100,000)"	47.3*	53.8*	44.4*	34.1	32.1	40.0*
"Age-Adjusted Chronic Lower Respiratory Disease Mortality (per 100,000)"	35.9**	35.0**	31.3**	17.1**	30.2	30.3**
"Age-Adjusted Diabetes Mortality (per 100,000)"	16.5*	31.3*	18.7*	12.1*	12.8	19.7*

Source: Maryland Behavioral Risk Factor Surveillance System, 2015-2019. Maryland Youth Risk Behavior Survey/Youth Tobacco Survey, 2018. Centers for Disease Control and Prevention. CDC Wonder, Underlying Cause of Death 2015-2019.
** Black>White (statistically significant based on 95% confidence intervals)*
*** Blackk<White (statistically significant based on 95% confidence intervals)*

LIFE EXPECTANCY

Based on data from the 2019 Maryland Vital Statistics, the life expectancy rate for all the jurisdictions except for Baltimore City were higher than the state rate of 79.2%. Baltimore City had a lower rate of 72.8%. Racial and gender disparities were noticeable as Blacks and the male population had lower rates in all jurisdictions when compared to Whites and female populations, respectively.

Table 24:
Life Expectancy (in Years) at Birth by Race and Sex, 2017-2019

Jurisdiction	All Races	White	Black	Male	Female
Anne Arundel County	79.3	79.5	78.1	76.8	81.8
Baltimore City	72.8	76.2	70.8	67.9	77.7
Baltimore County	78.1	78.3	76.8	74.9	81.1
Howard County	83.2	83.2	81.0	81.4	84.9
Talbot County	80.4	81.3	76.7	77.7	83.0
Maryland	79.2	79.9	76.9	76.4	82.0

Source: 2019 Maryland Vital Statistics

PREMATURE DEATH - YEARS OF POTENTIAL LIFE LOST

The Years of Potential Life Lost (YPLL) indicator includes all causes of death before age 75 per 100,000 population. The data are reported as crude rates and can provide insights on interventions to improve the overall health status of communities. Data were from the National Center for Health Statistics - Mortality Files (2017-2019) and are used for the 2021 County Health Rankings.

Baltimore City's rate was the highest among all the jurisdictions and at 13,830, was also significantly higher than the state and national rates of 7,222 and 6,943, respectively. Baltimore and Talbot counties also had higher rates than the state while Anne Arundel and Howard counties skewed lower (Table 25).

Table 25:
Years of Potential Life Lost, Rate per 100,000 Population

Jurisdiction	Premature Deaths, 2017–2019	Years of Potential Life Lost 2017–2019 Average	Years of Potential Life Lost Rate per 100,000 Population	Population by Race/Ethnicity		
				Non-Hispanic White	Non-Hispanic Black	Hispanic or Latino
Anne Arundel County	6,278	110,475	6,793	7,046.5	7,685.5	4,061.1
Baltimore City	12,509	235,812	13,830	9,977.3	16,832.6	5,173.2
Baltimore County	10,993	186,936	8,127	8,132.3	9,579.9	4,443.2
Howard County	2,146	38,961	4,244	3,997.3	6,657.0	2,945.5
Talbot County	462	6,979	7,284	7,100.5	10,079.7	No Data
Maryland	141,796	2,453,535	7,222	6,878.7	9,732.6	3,868.9
United States	7,697,253	126,961,190	6,943	6,744.0	10,554.0	4,966.6

Source: County Health Rankings, 2017–2019. Courtesy: SparkMap.org

COVID-19

The COVID-19 pandemic is an ongoing global pandemic of coronavirus disease 2019 (COVID-19) that has had a severe impact on population health. Data from Johns Hopkins University showed that Baltimore City had the highest rate per 100,000 of confirmed COVID-19 cases at 9,495.68 and deaths at 213.78 per population. Baltimore County followed suit with 8,614.6 confirmed cases and 209.91 deaths per 100,000 population. These rates were higher than the state rates.

Table 26:
COVID-19 Cases and Death Rates Per 100,000 Population

Report Area	Total Population	Total Confirmed Cases	Confirmed Cases, Rate per 100,000 Population	Deaths, Rate per 100,000 Population
Anne Arundel County	576,031	48,651	8,445.9	122.2
Baltimore City	602,495	57,211	9,495.7	213.8
Baltimore County	828,431	71,366	8,614.6	209.9
Howard County	323,196	21,198	6,558.9	82.3
Talbot County	36,968	2,442	6,605.7	132.6
Maryland	6,042,718	511,646	8,467.2	167.3
United States	326,262,499	40,567,141	12,433.9	196.2

Source: Johns Hopkins University, 2021. Courtesy: SparkMap.org, retrieved on September 13, 2021

According to the Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics, Maryland's overall rate for the portion of the population that was fully vaccinated was documented at 73.6% as of September 13, 2021. Within Chase Brexton's service area, Howard County, Anne Arundel County, and Talbot County all led the state with the percentage of adult population fully vaccinated. Baltimore City had the lowest rate at 63.4% when compared to the other jurisdictions.

Table 27:
Fully Vaccinated Adults (COVID-19), Percent by County, CDC 2021

Report Area	Percent of Adults Fully Vaccinated	Estimated Percent of Adults Hesitant About Receiving COVID-19 Vaccination	Vaccine Coverage Index
Anne Arundel County	77.8%	6.7%	0.1
Baltimore City	63.4%	8.0%	0.4
Baltimore County	72.7%	6.7%	0.1
Howard County	86.4%	4.7%	0.0
Talbot County	75.6%	7.5%	0.0
Maryland	73.6%	6.7%	0.2
United States	60.2%	10.0%	0.4

Source: Centers for Disease Control and Prevention and the National Center for Health Statistics, CDC - GRASP, 2021. Courtesy: SparkMap.org, retrieved on September 13, 2021

OBESITY

According to the CDC National Center for Chronic Disease Prevention and Health Promotion 2017 data, the obesity rate in Baltimore City is 35.3% and in Baltimore County at 31.3%, which significantly higher than the state and national rates of 31.3% and 29.5%, respectively. The obesity indicator reports the percentage of adults who report a Body Mass Index (BMI) greater than 30.0. Disparities were most noticeable in Baltimore City where the female population had a higher disease prevalence of 41.1% than the male population at 28.5% (Table 28).

Table 28:
Adults with BMI > 30.0 (Obese)

Jurisdiction	Population Age 20+	Adults with BMI > 30.0 (Obese)	Adults with BMI > 30.0 (Obese), Percent	Male	Female
Anne Arundel County	430,773	133,109	30.6%	30.8%	30.5%
Baltimore City	467,777	165,593	35.3%	28.5%	41.1%
Baltimore County	627,952	197,177	31.3%	29.4%	33.0%
Howard County	233,538	60,720	25.7%	24.1%	27.3%
Talbot County	29,618	8,678	29.8%	30.4%	29.3%
Maryland	4,529,198	1,431,286	31.3%	29.7%	32.8%
United States	243,101,202	72,159,365	29.5%	29.8%	29.3%

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2017. Courtesy: Sparkmap.org

MATERNAL AND CHILD CARE

LOW-BIRTH-WEIGHT INFANTS (INFANTS WEIGHING LESS THAN 2500 GRAMS AT BIRTH)

The low-birth-weight (LBW) indicator reports infants at birth with a weight less than 2500 grams, or 5.5 pounds. This is important because LBW correlates with neonatal mortality and preterm birth. In the assessment area, Baltimore City, at 12.2%, reported a significantly higher percentage of children with a LBW at birth. This was higher than all the other jurisdictions as well as the state rate of 8.7%. The rates for non-Hispanic Blacks skewed on the higher ranges when compared to other ethnic groups (Maryland Vital Statistics Annual Report, 2019).

Table 29:
Low Birth Weight (LBW, <2500 grams)
2019 Time Frame

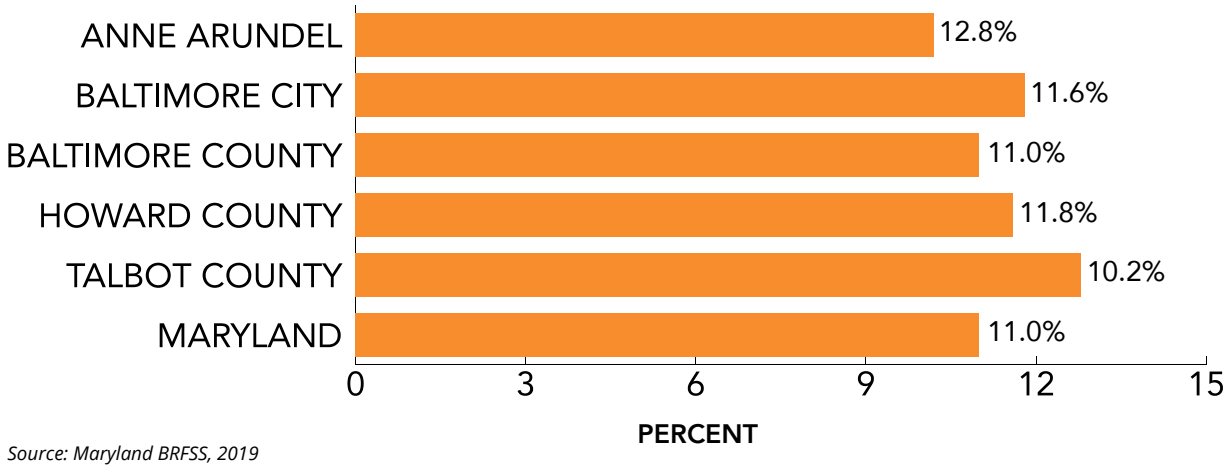
Jurisdiction	Low Birth Weight, 2017	White Non-Hispanic	Black Non-Hispanic	Hispanic	Other Non-Hispanic
Anne Arundel County	7.8%	6.9%	11.3%	6.6%	8.3%
Baltimore City	12.2%	7.5%	15.7%	6.5%	9.1%
Baltimore County	9.1%	7.0%	12.8%	6.8%	8.8%
Howard County	7.2%	5.5%	8.5%	5.7%	9.5%
Talbot County	7.6%	6.0%	21.1%	**	**
Maryland	8.7%	6.6%	12.6%	6.9%	8.8%

Source: Maryland Vital Statistics Annual Report, 2019
** Percentages based on < 5 events in the numerator are not presented.*

DIABETES

According to the 2020 CDC National Diabetes Statistics Report, more than 34 million people are diagnosed with diabetes in 2018, including both diagnosed and undiagnosed cases. This accounted for an estimated direct and indirect cost of 327 billion dollars of diagnosed diabetes in the United States in 2017. Diabetes can have a harmful effect on most of the organ systems in the human body and persons with a diagnosis of diabetes are at increased risk for ischemic heart disease, neuropathy, and stroke. A review of the 2019 Maryland BRFSS data showed that 11.0% of individuals have been diagnosed with diabetes. Chart 12 provides the overview of adults age 20 and above with a diagnosis of diabetes within the assessment region.

Chart 12:
Adults age 20+ with Diabetes (Crude Prevalence Rates)



Source: Maryland BRFSS, 2019

HYPERTENSION AND OTHER DISEASES OF THE HEART

Based on the 2019 Maryland BRFSS data, adult hypertension in Baltimore City at 38.5% was the highest in the service area with the lowest prevalence in Howard County. The racial disparities at the state level where the prevalence was statistically significant among Blacks when compared to Whites was not observed in each of the county trends. On the other hand, at 30.3%, Baltimore City had the lowest prevalence of adults with high cholesterol while Baltimore County, at 33.5%, had the highest. Racial disparities were noted in Baltimore County similar to state trends where Whites had a higher prevalence of adults with high cholesterol than Blacks (Table 30 and Appendix C).

Table 30:
Prevalence of Hypertension and High Cholesterol Among the Adult Population

Indicators	Maryland	Anne Arundel County	Baltimore City	Baltimore County	Howard County	Talbot County
Adult Hypertension Prevalence (%)	33.5*	30.9	38.5	35.7	28.5	37.2
Adult High Cholesterol Prevalence (%)	33.2*	30.5	30.3	33.5**	36.2	33.7

Source: Maryland BRFSS data tables, 2019 Chronic Disease Burden Tables (state and county data)
** Black>White (statistically significant based on 95% confidence intervals)*
*** Black<White (statistically significant based on 95% confidence intervals)*

SEXUALLY TRANSMITTED INFECTIONS, HIV AND AIDS

Data from the CDC, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2018, indicated that Baltimore City reported the highest rate of HIV/AIDS per 100,000 of its population at 1,849.7. Talbot County reported the lowest at 229.7. A similar trend was observed upon review of gonorrhea and chlamydia infections within the jurisdictions under review. Ethnicity-related disparities in all jurisdictions except Talbot County were reported and most noticeably in Baltimore City where Non-Hispanic/Latino Blacks had a higher rate of HIV/AIDS prevalence of 2,489.40, when compared to Non-Hispanic Whites at 514.8. Ethnicity level data was not available for Talbot County.

Table 31:
Sexually Transmitted Infections, HIV and AIDS

Jurisdiction	Population with HIV / AIDS, Rate per 100,000 Pop.			Gonorrhea Infections, Rate per 100,000 Pop	Chlamydia Infections, Rate per 100,000 Pop.
	Total Population with HIV/AIDS	Non-Hispanic/ Latino Latinx White	Non-Latinx Hispanic/Latino Black		
Anne Arundel	257.5	94.5	864.7	94.9	404
Baltimore City	1,849.70	514.8	2,489.40	587.9	1,310.10
Baltimore County	427.7	121.2	1,055.10	157.2	536.1
Howard County	231.2	80.4	746.8	79.7	364.4
Talbot County	229.7	No Data	No Data	43.1	277.6
Maryland	652.9	158.9	1564.5	170.3	586.3
United States	372.8	1,004.40	1,252.90	179.1	539.9

Source: Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018. Courtesy: SparkMap

DENTAL CARE

DENTAL CARE

Access to dental care can be assessed by the number of dentists per 100,000 population in an area. According to the Area Health Resource File 2019-2020, Maryland fares better than the national average with 71 dentists per 100,00 population as compared to 61 dentists nationally per 100,000 population. In targeted counties where Chase Brexton Health Services operates, the availability of dentists includes Anne Arundel with 403, Baltimore City 458, Baltimore County 644, Howard County 278, and Talbot County with 30 (County Health Ranking, 2021).

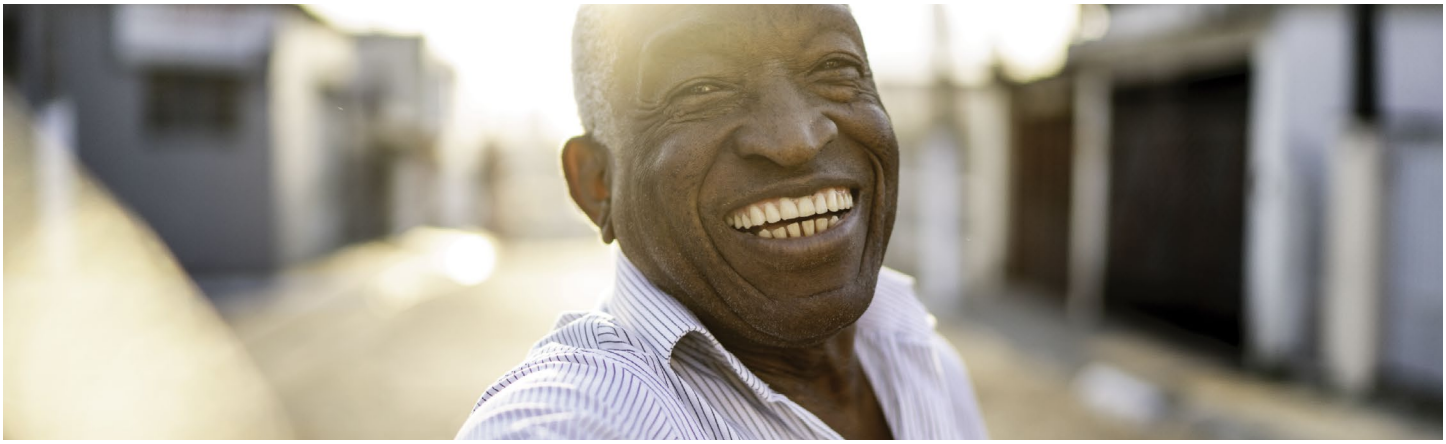
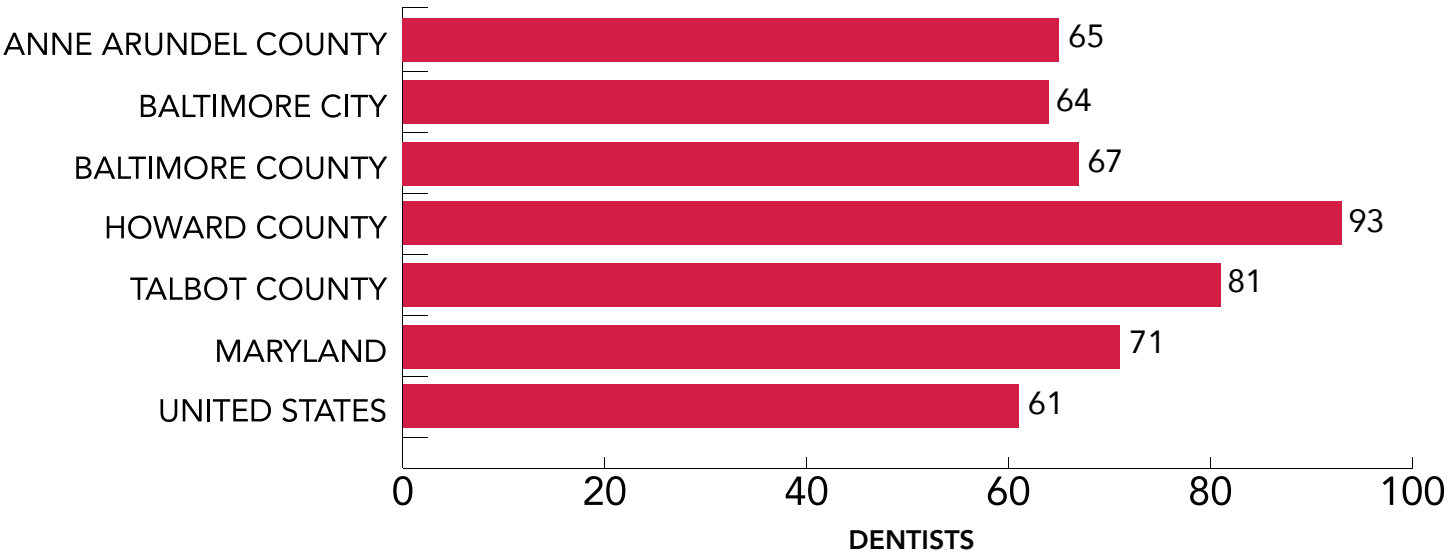


Chart 13:
Dentists per 100,000 Population



Source: Area Health Resource File 2019–2020

Dental care is an important indicator of community health. Research has linked untreated periodontal disease to other serious health problems including tooth loss, heart complications, strokes, diabetes complications, and respiratory issues. Healthy People 2030 seeks to improve oral health by increasing access to oral health care, including preventive services. To achieve this goal, FQHCs are called to expand their role as a primary source of access to dental services (Healthy People 2030, 2021). During 2020, there was a decrease in dental visits as people quarantined and prioritized perceived urgent or emergent health needs over dental care. This may have an impact on other health issues in the short and intermediate term (FAIR Health Brief, Sept 2020).

According to 2020 UDS, Chase Brexton Health Care reported 3,078 dental visits and treated 2,881 patients for oral exams (UDS, 2020). The Oral Health Foundation reports that LGBTQ people are more likely to smoke than straight and cisgender (Oral Health Foundation, n.d.). LGBTQ people are also affected by higher rates of HIV and hepatitis, which can reportedly lower the body's ability to fight infection. Furthermore, side effects of some HIV medications may cause problems in the mouth.

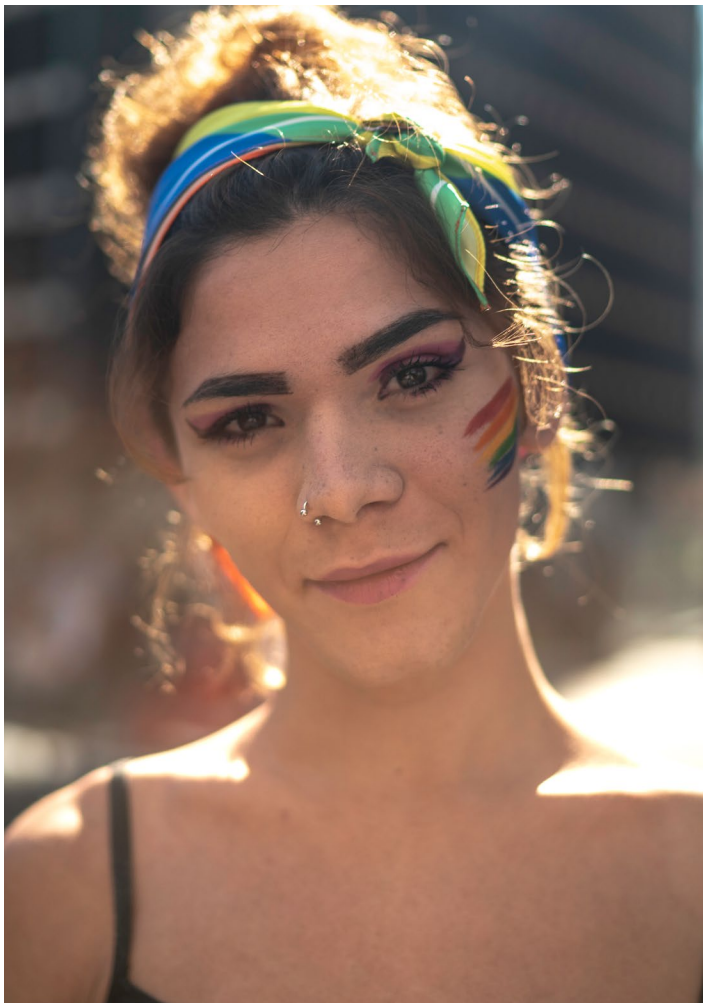
Geography can also influence positive dental health. Taking into consideration rural jurisdictions, such as Talbot County, many rural communities have poorer health literacy in oral hygiene. The Rural Health Information Hub reports that rural residents with low health literacy are more likely to consume sugar-sweetened beverages and are more prone to dental caries (Rural Health Hub, n.d.).

BEHAVIORAL HEALTH

MENTAL HEALTH

Mental health refers to cognitive, behavioral, and emotional well-being. It is a vital aspect of overall health and wellness affecting daily living, relationships, and physical health. Mental health is more than just the absence of a disorder or disability. It is a state of well-being in which an individual realizes his or her own abilities, can be productive and cope with the normal stress of everyday life, and is able to contribute to his or her community (MentalHealth.Gov, n.d.).

State prevalence of adult mental illness ranges widely from 16.1% in New Jersey, 25.3% in Utah, to 17.0% in Maryland (Mental Health America, 2021). At Chase Brexton Health Care, over 85.0% of patients were screened for depression. Given the fact that there is a higher rate of a mental health condition in the LGBTQ community, this is a particular concern for patients at the Chase Brexton Health Care (National Alliance on Mental Illness, 2021). Chase Brexton reports that 15.0% of patients identify as LGBTQ and 10.0% identify as transgender or gender-diverse (Chase Brexton Health Care, Annual Report, 2020).



According to the National Institute of Health, mental illnesses are common in the United States. Nearly one in five adults live with a mental illness (51.5 million in 2019). Mental illnesses include many different conditions that vary in degree of severity, ranging from mild to moderate to severe (National Institute of Health, n.d.). The National Alliance on Mental Illness estimated that one in every five adults experience mental health problems each year. Every person has some risk of developing a mental health disorder, regardless of their demographics. Common risk factors can include social and economic pressures (socioeconomic conditions, occupation, education, etc.) and biological factors, such as a family history of mental disorders (National Alliance on Mental Illness, n.d.).

SUICIDE MORTALITY

Suicide continues to be a national and state public health crisis particularly among young people. Suicide rates have increased in nearly every state over the last two decades (Healthy People 2030, 2021). According to the National Center for Injury Prevention and Control, suicide remains the tenth leading cause of death in the United States with over 47,500 deaths. (National Center for Injury Prevention and Control, 2021).

According to the National Alliance on Mental Illness, LGBTQ adults are 2x more likely as heterosexual adults to experience a mental health condition. Transgender individuals are nearly as 4x as likely as cisgender individuals (people whose gender identity corresponds with their birth sex) individuals to experience a mental health condition.

Source: National Alliance on Mental Illness, Identity and Cultural Dimensions, 2021

The rate of suicide completions nationally is 13.9 per 100,000 compared to the Maryland rate of 10.3. Talbot County and Baltimore City had the lowest rate of suicide <1.0 and 9.0, respectively. Comparatively, Anne Arundel County had the highest rate at 12.9 (Maryland Vital Statistics Annual Report, 2019).

In looking at suicide completions by race, Whites had the highest rate at 14.2 per 100,000 when compared to Blacks at 6.1 and Hispanics /Latinos at 4.9 (County Health Rankings, 2021).

Table 32:

Intentional Self Harm (Suicide) Rate per 100,000 and the number of reported deaths per jurisdiction

Jurisdiction	All Races	Number of Deaths
Anne Arundel County	12.9	75
Baltimore City	9.0	54
Baltimore County	12.4	103
Howard County	11.4	37
Talbot County	***<1.0	6
Maryland	10.3	656
United States	13.9	47,511

Source: Maryland Vital Statistics Annual Report, 2019
Age adjusted rate of suicide for all ages per 100k population, 2019
*****Rates based on <20 events in the numerator are not presented since such rates are subject to instability*

There is no single cause for a death by suicide. Feelings of hopelessness, depression, chronic pain, family history, social isolation, lack of access to behavioral health care and medications are preventable factors that can negatively increase the likelihood of suicide (Schimelpfening, 2021).

In exploring suicide among youth, the Trevor Project reports that LGBTQ youth of color face unique challenges and stigma. In a 2021 national survey, it was found that they reported higher rates of suicide attempts compared to their White peers. Furthermore, half of all LGBTQ youth of color reported discrimination based on their race/ethnicity in the past year (Trevor Project, 2012). The Trevor Project national survey demonstrated:

- Among LGBTQ youth, 42.0% seriously considered attempting suicide in the past year, including more than half of transgender and nonbinary youth.
- Among Native/Indigenous youth 31.0%, 21.0% of Black youth, 21.0% of multiracial youth, 18.0% of Hispanic/Latino youth, and 12.0% of Asian/Pacific Islander youth attempted suicide compared to 12.0% of White youth.
- Among LGBTQ youth, 94.0% reported that recent politics negatively impacted their mental health.
- Among LGBTQ youth, 70.0% stated that their mental health was "poor" most of the time or always during COVID-19.
- Among LGBTQ youth, 48.0% reported they wanted counseling from a mental health professional but were unable to receive it in the past year.

Table 33:

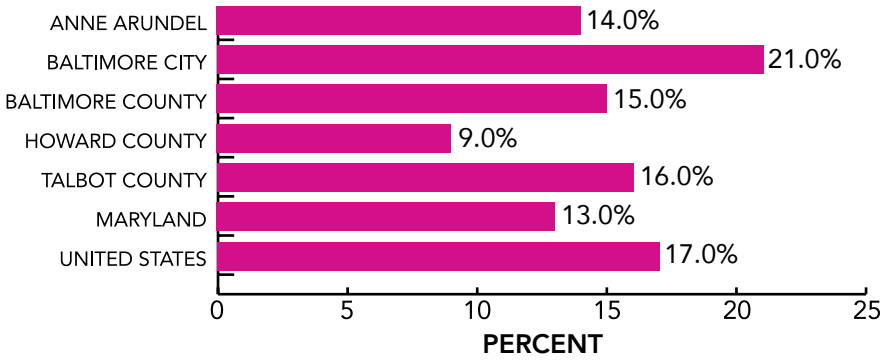
Intentional Self Harm (Suicide) Ages 10–19 by Jurisdiction and Race/Ethnicity

Jurisdiction	All Races	White	Black	Hispanic/Latino
Anne Arundel County	5	4	1	0
Baltimore City	3	1	2	0
Baltimore County	7	1	3	2
Howard County	2	2	0	0
Talbot County	0	0	0	0
Maryland	39	22	9	6
Total number of suicide deaths among people aged 10-19 in 2019.				

Source: Maryland Vital Statistics Annual Report, 2019

TOBACCO USE

Chart 14:
Percentage of Adults Smokers (Age adjusted)



Source: County Health Rankings, 2021

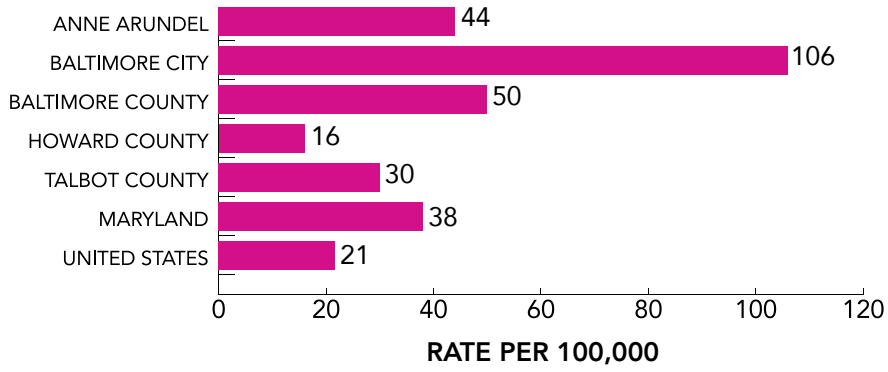
The CDC reported that smoking leads to disease, disability, and harms nearly every organ in the body (CDC, 2019). Smoking can cause cancer, diabetes, gum disease, tooth loss, heart disease, stroke, and lung diseases.

Tobacco is not only smoked. Smokeless tobacco, while less lethal than smoked tobacco, can lead to various cancers, gum and teeth problems, and nicotine addiction. Almost 6.0% of young adults use smokeless tobacco and half of new users are younger than 18 years old. At Chase Brexton Health Care, 86.0% of patients were screened for tobacco use and received tobacco intervention (UDS, 2020). Nationally, 17.0% of adults smoke. In Maryland the rate varies greatly from 9.0% in Howard County to 21.0% in Baltimore City (County Health Rankings, 2021).

The CDC reports that each year, smoking kills 480,000 Americans, including about 41,000 from exposure to secondhand smoke, which includes emphysema and chronic bronchitis. On average, smokers die 10 years earlier than nonsmokers (CDC, Smoking and Tobacco Fast Facts, 2021).

SUBSTANCE USE

Chart 15:
Drug Overdose Mortality Rate



Source: CDC, 2020

In 2019, 70,630 drug overdose deaths occurred in the United States for an age-adjusted rate of 21.6 per 100,000 standard population (CDC, 2020). The rate of overdoses in Maryland was 38 per 100,000 population, which is significantly higher than the national rate. Exploring the trends across the state, Howard County had the lowest rate at 16 per 100,000. By comparison, Baltimore City had the highest rate of 106.

County Health Rankings cited that when alcohol is consumed in excess, it is harmful to the health and well-being of those who drink and their families, friends, and communities. "Furthermore, prescription drug misuse and illicit drug use also have substantial health, economic, and social consequences" (County Health Rankings, 2021). On March 1, 2017, Maryland's Governor, Larry Hogan, signed an Executive Order declaring a State of Emergency in response to the heroin, opioid, and fentanyl crisis that was devastating communities in Maryland and across the country.

There were 318 patients served for substance use at Chase Brexton Health Care with 1,579 health center visits and 276 virtual visits (UDS, 2021). Henry, a patient at Chase Brexton Health Care, stated that in his final days at a previous treatment center, someone directed him to Chase Brexton Health Care's substance use program. Once enrolled, the one-on-one counseling he received made the

difference (Chase Brexton Mission Moments, n.d.). By placing the patient at the center of care, the Chase Brexton Health Care's Intensive Outpatient Program succeeded where other programs had not. The Chase Brexton staff help patients in self-diagnosing their specific triggers and offer personalized strategies and coping skills.

MENTAL UNHEALTHY DAYS

According to County Health Rankings 2020, it is important to consider both how long a person lives but also the quality of their life. Measuring the quality of mental health days is a reliable indicator of how healthy people feel. It has been found that counties with more unhealthy days were more likely to have a higher rate of unemployment, poverty, percentage of adults who did not complete high school, mortality rates, and prevalence of disability than counties with fewer unhealthy days (County Health Rankings, 2021).

Table 34:
Poor Mental Health Days

Jurisdiction	Average number of mentally unhealthy days reported in the past 30 days (age-adjusted)
Anne Arundel	3.7
Baltimore City	4.9
Baltimore County	4.1
Howard County	3.4
Talbot County	3.8
Maryland	3.7
United States	4.1

Source: County Health Rankings, 2021

Adults in Maryland and Anne Arundel County reported an average of 3.7 mentally unhealthy days in the past 30 days, which is slightly better than the United States reported at 4.1 days. Baltimore City adults reported the highest rate of mental days at 4.9 with Baltimore County at 4.1 days. Howard County had the lowest number of unhealthy mentally unhealthy days with a rate of 3.4 (County Health Rankings, 2021).

Table 35:
Social Associations

Jurisdiction	Number of membership associations per 10,000 population.
Anne Arundel	8.1
Baltimore City	9.9
Baltimore County	8.4
Howard County	8.9
Talbot County	12.4
Maryland	9.0
United States	9.4

Source: County Health Rankings, 2021

SOCIAL ASSOCIATIONS

According to the National Association on Mental Illness (NAMI), community can be defined in many ways, but the most important aspect is about having a connection. Community is important to thrive, especially for someone with mental illness or for someone who is already experiencing the common symptoms of loneliness and isolation. A community can provide important elements that are critical to mental health: belonging, support and purpose (Gilbert, 2019).

The Social Associations indicator measures the number of membership affiliations a person has per 10,000 population, per year (County Health Rankings, 2021). As reported in the 2020 County Health Rankings, in Maryland, the average number of associations is 9.0 and nationally it is 9.4. Talbot County residents reported the highest number of social associations at 12.4 whereas Anne Arundel County residents reported the lowest number at 8.1. Baltimore City's rate is slightly higher than the national average at 9.9.

YOUTH RISK BEHAVIOR SURVEY

Based on The Center for Disease Control and Prevention questionnaire, the Youth Risk Behavior Survey/Youth Tobacco Survey (YRBS/YTS) is completed by students in Maryland high schools and middle schools. Students are asked about behaviors that contribute to the leading causes of death and disability such as alcohol, drug use, tobacco use, sexual behaviors, unintentional injuries, etc. The survey is administered in schools every even year to monitor youth risk behavior. Below are summary tables highlighting risky behaviors in high school students across the five jurisdictions served by Chase Brexton Health Care. The changes between the years 2016 and 2018 are designated in green to a positive impact. Red indicates a negative impact per county.

The YRBS/YTS data indicate that Maryland high school students who have tried cigarette smoking are trending in the right direction, declining.

Table 36:
Percentage of Students who currently smokes cigarettes *(on at least 1 day during the 30 days before the survey)*

Jurisdiction	2016	2018	Significant Change
Anne Arundel	9.2	6.0	▼
Baltimore City	8.8	6.0	▼
Baltimore County	9.2	4.2	▼
Howard County	4.7	2.7	▼
Talbot County	12.3	5.1	▼

Source: State of Maryland, YRBS, 2018–2019. High School Students

However, the number of students who are currently using electronic vaping products has increased in the state from 4.7% to 5.9% trending in a negative direction. All counties reported an increase in this health indicator.

Table 37:

Percentage of Students who currently use electronic vapor products frequently

(on 20 or more days before the survey)

Jurisdiction	2016	2018	Significant Change
Anne Arundel	2.5	7.8	▲
Baltimore City	No Data	No Data	
Baltimore County	1.7	4.3	▲
Howard County	1.0	4.1	▲
Talbot County	3.8	12.4	▲

Note: No data reported for this indicator for Baltimore City.
Source: State of Maryland, YRBS, 2018–2019. High School Students

The number of Baltimore City youth who inject illegal drugs has increased significantly whereas there was no change in Maryland. This indicator highlights the importance of early prevention and intervention with young adults particularly in Baltimore City to prevent substance use.

Table 38:

Percentage of Students who ever injected any illegal drug into their body one or more times during lifetime

Jurisdiction	2016	2018	Significant Change
Baltimore City	6.3	9.2	▲

Note: No other jurisdiction reported significant changes.
Source: State of Maryland, YRBS, 2018–2019. High School Students

As noted through the YRBS/YTS, young adults who are involved in illicit drug selling or sharing are on the decline in Anne Arundel County. This is a positive trend. Other jurisdictions did not have any change in this indicator.

Table 39:

Percentage of Students who were offered, sold or given illegal drugs on school property

(during the 12 months before the survey)

Jurisdiction	2016	2018	Significant Change
Anne Arundel	27.2	23.1	▼

Note: No changes in counties served by Chase Brexton Health Care.
Source: State of Maryland, YRBS, 2018–2019. High School Students

In exploring mental health and suicide, the percentage of students who planned to take their lives increased in Maryland to 16.2%. The Baltimore City jurisdiction saw an increase with this indicator rising from 16.2 to 19.5%. There were no additional changes noted in other jurisdictions served by Chase Brexton Health Care.

Table 40:

Percentage of Students who were offered, sold or given illegal drugs on school property

(during the 12 months before the survey)

Jurisdiction	2016	2018	Significant Change
Anne Arundel	16.2	19.5	▲

Note: No changes in counties served by Chase Brexton Health Care.
Source: State of Maryland, YRBS, 2018–2019. High School Students

IDENTIFICATION AND PRIORITIZATION OF COMMUNITY'S HEALTH NEEDS

The Chase Brexton Health Care 2021 CHNA surveyed 861 individuals who identified as patient, staff, leadership, or community partner of Chase Brexton Health Care. Several key questions were asked to each demographic group to identify and prioritize community health needs. An analysis of the questionnaire is provided below.

MENTAL HEALTH

Staff and patients were asked to rate how many days during the past 30 days they experienced challenges with managing their mental health. This question yielded a 99.0% response rate and identified 58.0% of respondents experiencing challenges with managing their mental health at least once during the last 30 days. Those indicating not experiencing any challenging days was 36.0%, and 6.0% preferred to not answer. While most respondents identified having at least one challenging day, 21.0% of those indicated challenges of 10 or more days with mental health. Experiencing challenges with managing mental health for over 10 days is an indicator of clinical depression or other mental health concerns based on length and duration.

COMMUNITY HEALTH ISSUES

All respondents were asked to identify the three most important health issues that affect their community.

Collectively, mental health, alcohol/drug addiction, and diabetes/high blood sugar were the three most important health issues.

SOCIAL/ENVIRONMENTAL PROBLEMS

All respondents were asked to identify the three most important social/environmental problems that affect the health of their community.

Collectively, availability/access to insurance, poverty, and availability/access to appointments were the three most identified. Additionally, 24.6% of respondents answered "unsure" of the social/environmental problems in the community.

ACCESS TO HEALTH CARE SERVICES

All respondents were asked to identify the three biggest challenges people in their community experienced with accessing health care services.

Overall, cost too expensive/inability to pay at 21.0%, no insurance at 15.0%, and wait is too long at 12.0% were the three biggest challenges when all responses were aggregated, which led to a review of Chase Brexton Health Care services.

CHASE BREXTON HEALTH CARE SERVICES

Patients were asked to identify services they have used or received from Chase Brexton Health Care within the last three months.

Adult primary care, lab services, pharmacy, behavioral health (mental), and dental care were the five most accessed services within Chase Brexton Health Care.

A review of the qualitative data to the response "other" for the question "What services have you used or received from Chase Brexton Health Care within the last three (3) months?" indicated patient requests for improvement with Chase Brexton Health Care services. Responses to the "other" included long wait time to schedule appointments, cancelled appointments by Chase Brexton Health Care, inability to schedule appointments due to telephone/scheduling issues, and affordability of dental services.

This leads to improvement of services within Chase Brexton Health Care where patients, staff, leadership, and community partners were asked to identify services that Chase Brexton Health Care could improve. The three areas where improvements were requested included:

- Phone service
- Improved time to appointment
- Scheduling appointments

A qualitative data analysis of the "other" response to this question reinforces the areas of improvement as respondents shared themes of needed improvements in the following categories:

- Customer service/front desk
- Time (in days) to receive an appointment
- Office wait time
- Phone service
- (More) dental and mental health services
- Patient portal/communication with providers
- Appointment days and times availability
- Access to refill prescriptions from pharmacy
- Laboratory services

Additionally, respondents were asked "What services would you like Chase Brexton Health Care to offer that are not currently available?"

- Unsure (34.0% of respondents)
- Mobile medical services (22.0%)
- Gastroenterology (15.0%)

A review of the qualitative data of the "other" response to this question indicated respondents would also like Chase Brexton Health Care to consider adding optometry, chiropractor, pain management, radiology, services that address women's issues, and expanding dental services.

CHASE BREXTON HEALTH CARE'S COMMITMENT TO ITS MISSION

Staff, leadership, and community partners were asked to rate their agreement with the Chase Brexton Health Care mission statement's alignment to serve their community needs. Chase Brexton Health Care's mission is to provide compassionate, quality health care that honors diversity, inspires wellness and improves our community. Among respondents, 43.0% strongly agreed with this statement while 40.0% agreed, 16.0% neither agreed nor disagreed, 1.0% disagreed, and 1.0% strongly disagreed.

Respondents were invited to leave additional comments regarding Chase Brexton Health Care's mission statement. The comments follow the themes of increasing appointment availability as well as ensuing the well-being of its staff.

Another comment from leadership reiterates the commitment and culture of Chase Brexton Health Care's senior leaders. "Chase Brexton's commitment to diversity, equity, and inclusion is impressive. Senior leaders prioritize the time and resource investment needed to create a vibrant organization. The healthy culture among employees also supports the empathic and culturally sensitive care delivered to all patients."

DIVERSITY, EQUITY, AND INCLUSION

All respondents were asked to rate their assessment of the statement *Chase Brexton Health Care has a strong commitment to diversity, equity, and inclusion.* Of the 861 respondents, 847 answered this question. Those who strongly agree were at 44.0%, agree 33.0%, neither agree nor disagree 18.0%, disagree 4.0%, and strongly disagree at 2.0%.

ADDITIONAL STAKEHOLDER ENGAGEMENT AND FEEDBACK

The comments by community partners as well as Chase Brexton Health Care leadership/Board of Directors and staff were analyzed based on questionnaires and staff interviews.

The themes from staff include:

- Opportunities to gather feedback from patients regarding their needs and the services through focus groups or listening sessions.
- Opportunities to provide more community outreach and participation in community events.
- Opportunities to integrate case management staff into the primary care services.
- Opportunities to assist with the affordability of dental services to the general population.
- Opportunities to increase the capacity for behavioral health, case management, and dental care.
- Opportunities to continue to emphasize diversity, equity, and inclusion, to model those concepts, and hold peers accountable to the model.

The community partners recommend the following:

- Chase Brexton Health Care's participation in local health improvement coalitions to work to reduce health disparities.
- Chase Brexton Health Care continues its initiatives to identify and document Social Determinants of Health in the health record to meet patients' needs "where they are."
- Chase Brexton Health Care can establish relationships with local hospitals to assist with long-term, longitudinal patient care after discharge from hospitals or transitional facilities.

Additionally, Chase Brexton Health Care's leadership/Board of Directors provided comments regarding partnerships with local health organizations to create sustainability of services.

RECOMMENDATIONS

Chase Brexton Health Care works to provide compassionate, quality health care that honors diversity, inspires wellness, and improves communities across Maryland. They envision communities as places where all people can achieve high quality, whole-person health during all stages of life. Various health needs were identified through the Community Health Needs Assessment based on population demographics, health disparities, and stakeholder feedback. The recommendations outlined are based on best practices, evidence-based guidelines, and existing programs and resources within the state that Chase Brexton Health Care can leverage to reinforce their efforts within the communities they serve.

COMMUNITY ENGAGEMENT AND COLLABORATIVE PARTNERSHIPS

Maryland has several collaborative partnerships at both the state and local levels. As a community health provider serving Maryland's most vulnerable populations, a partnership with state, county, or grassroots organizations can assist Chase Brexton Health Care with the following:

- Patient linkage to needed health and behavioral health services.
- Patient linkage to social services to help mitigate the SDoH that are barriers to care.
- Community access to care at Chase Brexton Health Care's health centers.

Some key community partnerships may include:

- Local school systems to provide primary care and behavioral health to students and the community.
- Local behavioral health authorities to provide a connection to additional behavioral health crisis, substance use disorder or mental health providers for patient referral during times of staffing shortages.
- Local health department improvement coalitions to help set public health priorities for the community and to ensure equitable healthcare resources for the county population.

- Hispanic/Latino community centers offer an opportunity to provide education and care coordination services to this population.
- The State of Maryland Primary Care Program and the Behavioral Health Administration can provide training primary care and behavioral health opportunities for the workforce as well as identify funding opportunities.

LEARNING COLLABORATIVES

Chase Brexton Health Care' strategic implementation of a new center for diversity, equity and inclusion that provides an opportunity for the National Standards for Culturally and Linguistically Appropriate Services (CLAS) in health and health care to be embedded across the organization. This will ensure that health equity becomes part of the practice, process, innovation, and organizational performance. The center could also serve as the impetus for the implementation of learning collaboratives to share best practices.

Chase Brexton Health Care has been a leader in LGBTQ and HIV/AIDs care for several decades; as a result, they are a trusted healthcare provider in the industry and are true subject matter experts in these fields. Chase Brexton Health Care operates the Center for LGBTQ Health Equity, which provides workforce training and professional development opportunities for LGBTQ affirming care.

An expansion of this model may include adding sessions to train healthcare organizations on the care management needs and techniques, anticipated care coordination needs, and clinical guidance on preventive care services for the populations.

Providing these services confirms Chase Brexton Health Care's commitment to ensuring a key population of patients in their community receive clinically appropriate, affirming care that prioritizes their overall health status in their medical neighborhood.

A TRUE PATIENT CENTERED MEDICAL HOME MODEL

Centers of Chase Brexton Health Care have been recognized as a Patient Centered Medical Home (PCMH) by the National Committee of Quality Assurance (NCQA). As a PCMH, organizations incorporate techniques to increase their access to comprehensive primary care services, use a team-based approach to care, understand their population, provide care management services, and improve quality for chronic, preventive, and patient experience measures. HRSA has endorsed this model of care and recognizes practices that maintain the PCMH status. The recommendations that follow provide guidance for Chase Brexton Health Care to augment some of their PCMH practices based the findings of the CHNA.

Access and Timeliness of Services

Expansion of Telemedicine Across All Sites

With the advent of the COVID-19 pandemic, 97% of medical practices have expanded telehealth access to better protect and serve their patients and ensure care continuity (MGMA, 2020). The federal government waived Medicare restrictions around telehealth for Public Health Emergency (PHE), which provides an opportunity to may have enhanced the use of telehealth services by practices. The geographic restrictions were lifted permitting providers to serve patients in any geographic area. The originating site restriction was lifted, allowing providers to serve patients in their homes, and telephone restrictions were minimized allowing the use of a phone with video and audio capabilities to be used to receive services. This helped mitigate several SDoH for vulnerable populations and presents an innovative option for centers to pursue, especially for chronic care management.

Chase Brexton Health Care's internal dashboard (2020-2021) reveals that patients are satisfied and have had good experiences with telehealth visits with over 85% of patients indicating their needs were met during a telehealth visit.

When the COVID-19 public health emergency ends many telehealth and audio-only services that Maryland FQHCs have adopted may no longer be reimbursable by Medicare. The priorities identified as part of this assessment reflect the need to provide comprehensive and accessible care that eliminates barriers to receiving care. Through insights gleaned from the assessment, Chase Brexton Health Care can enhance its capacity and capability to offer telehealth services and obtain reimbursement. This could sustain and expand care to the individuals especially in regions with HPSAs and/or MUAs/MUPs designations. Working with advocacy partners at the state and national level, and payer partners Chase Brexton Health Care can campaign for the sustained reimbursement model for telehealth services.

At the health center level, telehealth operational strategies may include dedicating providers to conduct same-day visits via telehealth with patients in the health center or at a distant site. Primary care, specialty care, and behavioral health care workflows and guidelines can be developed for telehealth visits. Case management services can also be provided in both scheduled and on-demand via telehealth for patients who enter the health centers with case management or coordination of care needs if there is no appropriate case manager (or similar staff member) on site.

Team-Baed Care, Case Management, and Care Management

The stakeholder feedback revealed opportunities for Chase Brexton Health Care to increase access to direct somatic patient care services and behavioral health. A team-based care approach with multiple providers who are familiar with each other's high-risk, high-utilizing patients, may help expand appointment opportunities for patients who need same-day, acute services.

Additionally, to augment the current PCMH model, Chase Brexton Health Care's care teams have opportunities to manage (and stimulate) demand for services by proactively identifying patients who need and require preventive care services and chronic disease follow-up by scheduling them appropriately and per scheduling guidelines. By organizing this approach, established patients can be scheduled and their needs addressed in the interim between office visits, which prevents last minute scheduling for chronic care, preventive care, and medication management. Subsequently, there is more flexibility accommodating patients with acute needs or same-day needs.

Chase Brexton Health Care has an established and productive case management program that positively contributes to the PCMH model of care. Case management assists patients using community resources to provide linkages to care. Case managers are often deployed to assist in episodic situations and address the psychosocial, lifestyle, and cultural influences of a patient's health and well-being.

Currently, patients are referred to educational workshops and groups, provided help accessing health insurance, connected to housing resources,and provided bus tokens to ensure stability within the community. Chase Brexton Health Care has 28 case managers on staff and supported 19,302 case management visits (UDS, 2020).

Care Management is a cornerstone of the PCMH model and provides longitudinal, whole-patient management of a patient's health based on their provider's treatment goals. Care Management consists of disease education and self- management education at regular intervals by a licensed professional to improve a patient's health status. A robust care management program has elements of both episodic (case management) and longitudinal care.

Chase Brexton is well equipped to support a successful PCMH model care by integrating case management and care management services into primary care teams and by creatively expanding access to meet the needs of the community.

Quality and Performance Improvement

Chase Brexton Health Care has a robust quality dashboard that provides goals and monthly reports of key chronic diseases (including HIV, diabetes, and hypertension), adult preventive access, growth (visit volumes) patient experience, patient satisfaction, and employee engagement (staff turnover rates, inclusion, equity and diversion training). Based on stakeholder feedback and the community health needs identified by this assessment, there are opportunities to work with payer partners or the state Health Information Exchange, CRISP, to review utilization measures and patterns to identify where patients receive care when they are not able to gain access to Chase Brexton Health Care's services. Activities can be implemented to improve access to Chase Brexton Health Care's services, and the results of those activities can be quantified and tracked on the organizational dashboard. In addition, care coordination agreements with local urgent care centers and emergency departments allow for the clinical teams to receive prompt documentation or communication of visits to ensure continuity of care.

ORAL HEALTH

In the February 2021 Health Affair Blog, President Biden released a report on Oral Health Equity. The report states that in addition to pandemic risks, longstanding evidence shows that poor oral health harms our physical, mental, and economic well-being. In this report, a recent survey of middle-aged adults revealed that nearly four in ten had dental problems within the past two years that caused pain, difficulty eating, and missed work. Reportedly, one in six children have untreated tooth decay, which hinders school success and healthy development. Children of color have higher rates of tooth decay due to systemic racial inequities (Burroughs, Kalash, Reusch, Johnson, Kertesz, February 2021).

In the Advancing Oral Health in America, the Institute of Medicine (IOM) provided recommendations to improve access to oral health prevention and treatment through a variety of approaches including expanding the focus on oral health in primary care settings. Components of the strategy included training primary care providers to screen patients for emergent oral health issues, to assess patient risk for oral health problems, and to refer patients to dental professionals when appropriate.

Chase Brexton Health Care has a well-established dental program such as Healthy Smiles, and the Emergency Services Program in collaboration with Johns Hopkins Hospital. The dental program has been progressive with collaborating/integrating with the other primary and specialty care services in the organization. The dental program can continue to expand by investing in the oral health infrastructure and increasing the dental workforce at locations where services are not currently rendered. Furthermore, Chase Brexton Health Care can implement universal oral health screening of all at the initial intake appointments (regardless of the presenting problem) and all patients can be encouraged to utilize the dental services.

BEHAVIORAL HEALTH

Integrated Behavioral Health

To improve health outcomes and increase efficient appointment management for behavioral health patients, the American Psychiatric Association endorses the integration of behavioral health and general medical services through the Collaborative Care Model (CCM). CCM has been shown to improve patient outcomes, reduce stigma related to mental health and improve financial performance. Over three decades of research has shown that CCM is particularly effective and efficient in delivering integrated care and helps reduce waitlists for behavioral health services (American Psychiatric Association, 2021).

The CCM team is led by a primary care provider and includes behavioral health care managers, psychiatrists and health care professionals all empowered to work at the top of their license and

training. The team implements a measurement-guided care plan based on evidence-based practice guidelines and focuses specific attention on patients not meeting their clinical goals. Elements of the CCM include a patient-centered care team, population-based care, measurement-based treatment, evidence-based care, and accountable care/reimbursement. This integrated model allows behavioral health professionals to work side-by-side with somatic care providers to provide patients with an approach to address their health needs and set up goals to improve their health outcomes. CCM training is available through the American Psychiatric Association. The training is free until 9/30/2022 with 4 CME credits available. Information can be found at: https://education.psychiatry.org/diweb/catalog/item/eid/C17016

Peer Recovery Coaches

In 2018, there were 2,087 deaths related to overdoses in Maryland. There were 656 people who died by suicide in Maryland with 275 people living in jurisdictions served by Chase Brexton Health Care (Maryland Vital Statistics Annual Report, 2019). The rate of suicide completions has steadily increased by 2.9% since 2017. According to the Substance Abuse and Mental Health Services Association (SAMHSA), peer recovery coaches are people who have lived behavioral health experience. Through shared experiences, peers assist with improving access and enhancing recovery efforts for people with mental health and substance use illnesses. Peer recovery coaches are instrumental in helping people with behavioral health issues engage and remain in treatment and promote recovery.

To help people with behavioral health disorders, it is recommended that Chase Brexton Health Care work with the State of Maryland Behavioral Health Administration Office of Consumer Affairs to explore the use of peer recovery coaches in the FQHCs their health centers. The peer recovery coach training program is offered through the Center for Addiction Recovery Training (CCAR) Peer Recovery Model. Peer recovery coaches fill an important gap in the service continuum; specifically, when patients come to the health center for unscheduled appointments, the peer recovery coach can function in a dual role as a peer and case navigator to help patients with unanticipated/emergent needs such as food cards, completion of forms, renewal of insurance, etc.

Universal Suicide Prevention/Screening

Based on Healthy People 2030, interventions to address behaviors that increase the risk of suicide (such as depression, and drug and alcohol misuse) may help reduce suicide attempts and completions. This is especially important given the fact that the suicide completion rate in Baltimore and Howard Counties are higher than the state average (Maryland Vital Statistics Annual Report, 2019). In addition, there is a high rate of suicide attempts in LGBTQ young adults. (Trevor Project, March 2021).

The National Action Alliance for Suicide Prevention has developed the Zero Suicide Model that is founded on the principle that death by suicide is preventable. This framework utilizes a multilevel approach: Assessment, Intervention, and Monitoring for Suicide Prevention model (AIM-SP) (Brodsky, Spruch-Feiner, 2018). The approach includes Identification, Engagement, Treatment, and Transitioning to address the clinical aspects of care.

Assessment refers to the use of systematic screening and comprehensive risk assessment to identify at-risk patients. Intervention consists of conducting suicide-specific brief and psychosocial interventions. Monitoring provides strategies for ongoing follow-up and increased contact during known high risk periods. AIM-SP provides guidelines for clinical training and best practice in suicide prevention that can be applied in a wide range of healthcare settings including settings such as Chase Brexton Health Care. Training opportunities are available through the Zero Suicide Institute at zerosuicideinstitute.com. In addition, The State of Maryland Behavioral Health Administration provides numerous local opportunities for suicide gatekeeper trainings. (Gatekeepers Trainings, n.d.)

Substance Use Disorder Screening

Recognizing that substance use and overdoses are a significant health problem in Maryland, Chase Brexton Health Care has an opportunity to screen all patients for substance use disorders. The rate of overdoses in Maryland was 38 per 100,000 population, which is significantly higher than the national rate. Baltimore City had the highest rate of overdoses at 106 per 100,000 population with 256 overdose deaths (Maryland Vital Statistics Annual Report, 2019).

The Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based practice screening tool that provides effective strategies for recognition and early intervention for substance use. SBIRT is a comprehensive, integrated public health model designed to provide universal screening, secondary prevention (detecting risky or hazardous substance use before the onset of abuse or dependence), early intervention, and timely referral and treatment for people who have substance use disorders (Substance Abuse Mental Health Administration, 2020). The SBIRT screening can be implemented at Chase Brexton Health Care centers during all intake assessments and tracked on the organizational dashboard. This is particularly important based on the significant increase in illicit drug use among high schoolers as evidenced in the YRBS data. The SBIRT training is free and there are two modules specific to OB/GYN and pediatric practices. The interactive, online SBIRT training offers up to 2.0 Continuing Medical Education credits for physicians and certificates of participation for non-physicians (State of Maryland, Behavioral Health Administration, SBIRT, 2021).

CONCLUSION

According to the U.S. Department of Health and Human Services, SDoH are factors based on where people are born, and how people live, play, and age. SDoH can be categorized into five main domains including economic stability (income, employment), education (graduation rate), health care access, built environment (transportation, housing), and social communities (food environment, migration). These factors have a direct impact on a person's health, well-being, and quality of life (U.S. Department of Health and Human Services, 2021). Chase Brexton Health Care has developed a robust service delivery system across six jurisdictions in Maryland to address SDoH of their patients.

At the start of the pandemic, Chase Brexton Health Care moved quickly and comprehensively to protect the lives of their patients, staff, and communities. COVID-19 has taught us that healthcare needs to be innovative and creative to best serve all people. During the pandemic, as noted in the 2020 Annual Report, Chase Brexton Health Care implemented safety protocols, expanded the behavioral health and psychiatry services, launched a telehealth service for medical and behavioral health services, expanded free delivery services for pharmacy, offered patients full-service dental care, ensured the HIV Continuity of Care, broadened virtual community events, and continued forward with outreach efforts.

Chase Brexton Health Care continues to ensure that all patients receive the care they need where people live, work, worship, and play, and in a way that is culturally competent and equitable.

GLOSSARY

- BMI: Body mass index (BMI) is a measure of body fat based on height and weight that applies to adult men and women.
- COVID-19 Vaccination rate: Can be reported as a percentage of adults vaccinated, those over 12 vaccinated, or total population vaccinated.
- Health Professional Shortage Areas (HPSAs): Designations by HRSA as having shortages of primary medical care, dental, or mental health providers; and may be geographic, population, or facilities.
- HIV/AIDS prevalence: The number of people with HIV/AIDS over the age of 13 per 100,000 population.
- Infant Mortality Rate: Infant deaths per 1,000 live births within the first year of life.
- Low birthweight infants: Infants weighing less than 2,500 grams at birth.
- Medically Underserved Area (MUA): Areas designated by HRSA as having too few primary care providers, high infant mortality, high poverty, or a high elderly population.
- Medical Underserved Population (MUP): Populations designated by HRSA as having too few primary care providers, high infant mortality, high poverty, or a high elderly population.
- Mortality Rate: The number of deaths per 1000,000 population.
- Pandemic: Event in which a disease spreads across several countries and affects large numbers of people.
- Percentage: A rate, number, or amount in each hundred.
- Quantitative Analysis: A technique that uses mathematical and statistical modeling, measurement, and research to understand behavior.
- Social Determinants of Health (SDoH): The conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

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APPENDIX

Appendix A: Chase Brexton Health Care's Primary Service Area

Appendix B: Patient Locations based on Zip Codes

Appendix C: Chronic Disease Indicators: Rates by Jurisdictions

Appendix D: HPSA Designations in the Service Area

Appendix A: Chase Brexton Health Care's Primary Service Area

Zip Code	Jurisdiction	Sum of #Total Patients	% of Total	Cumulative Total	Service Area
21133	Baltimore	1975	5.58%	5.58%	Primary
21045	Howard	1829	5.17%	10.75%	Primary
21061	Anne Arundel	1804	5.10%	15.85%	Primary
21244	Baltimore	1562	4.41%	20.26%	Primary
21207	Baltimore	1249	3.53%	23.79%	Primary
21218	Baltimore	1172	3.31%	27.10%	Primary
21044	Howard	1161	3.28%	30.38%	Primary
21117	Baltimore	1150	3.25%	33.63%	Primary
21215	Baltimore	975	2.76%	36.39%	Primary
21202	Baltimore	918	2.59%	38.98%	Primary
21075	Howard	904	2.55%	41.54%	Primary
21217	Baltimore	896	2.53%	44.07%	Primary
21060	Anne Arundel	834	2.36%	46.42%	Primary
21201	Baltimore	822	2.32%	48.75%	Primary
21225	Baltimore	765	2.16%	50.91%	Primary
21043	Howard	694	1.96%	52.87%	Primary
21208	Baltimore	671	1.90%	54.77%	Primary
20723	Howard	615	1.74%	56.50%	Primary
21229	Baltimore	584	1.65%	58.15%	Primary
21136	Baltimore	538	1.52%	59.67%	Primary
21206	Baltimore	530	1.50%	61.17%	Primary
21144	Anne Arundel	520	1.47%	62.64%	Primary
21224	Baltimore	505	1.43%	64.07%	Primary
21213	Baltimore	503	1.42%	65.49%	Primary
21216	Baltimore	503	1.42%	66.91%	Primary
20707	Prince George	446	1.26%	68.17%	Primary
21122	Anne Arundel	435	1.23%	69.40%	Primary
21230	Baltimore	411	1.16%	70.56%	Primary
20794	Howard	410	1.16%	71.72%	Primary
21223	Baltimore	393	1.11%	72.83%	Primary
21228	Baltimore	387	1.09%	73.92%	Primary
21234	Baltimore	385	1.09%	75.01%	Primary

Source: HRSA UDS, 2020

Appendix B: Patient Locations based on Zip Codes

Zip Code	City	Jurisdiction	Non/ Uninsured	Medicaid/ CHIP/Other Public	Medicare	Private	Total Patients
Other ZIP Codes		-------	203	310	66	527	1106
21061	Glen Burnie	Anne Arundel County	680	745	62	317	1804
21060	Glen Burnie	Anne Arundel County	296	347	32	159	834
21225	Brooklyn	Anne Arundel County	225	361	36	143	765
21144	Severn	Anne Arundel County	158	239	15	108	520
21122	Pasadena	Anne Arundel County	100	229	18	88	435
20724	Laurel	Anne Arundel County	225	75	11	60	371
21076	Hanover	Anne Arundel County	112	81	11	57	261
21113	Odenton	Anne Arundel County	70	102	15	57	244
21108	Millersville	Anne Arundel County	52	79	5	41	177
21401	Annapolis	Anne Arundel County	49	43	1	20	113
21403	Annapolis	Anne Arundel County	51	23	0	25	99
21114	Crofton	Anne Arundel County	42	16	1	29	88
21146	Severna Park	Anne Arundel County	13	38	4	20	75
21090	Linthicum Heights	Anne Arundel County	17	30	5	18	70
21409	Annapolis	Anne Arundel County	13	18	1	17	49
21012	Arnold	Anne Arundel County	10	20	0	12	42
21037	Edgewater	Anne Arundel County	14	8	1	12	35
21054	Gambrills	Anne Arundel County	6	16	2	10	34
21032	Crownsville	Anne Arundel County	3	9	2	11	25
20711	Lothian	Anne Arundel County	6	6	0	4	16
20755	Fort George G Meade	Anne Arundel County	5	5	0	3	13
21133	Randallstown	Baltimore County	390	918	156	511	1975
21244	Windsor Mill	Baltimore County	450	635	109	368	1562
21208	Pikesville	Baltimore County	132	299	74	166	671
21136	Reisterstown	Baltimore County	176	214	39	109	538
21228	Catonsville	Baltimore County	103	175	23	86	387
21234	Parkville	Baltimore County	100	169	17	99	385
21227	Halethorpe	Baltimore County	110	133	24	84	351
21222	Dundalk	Baltimore County	66	168	22	59	315
21221	Essex	Baltimore County	47	108	13	40	208
21220	Middle River	Baltimore County	41	68	11	49	169
21237	Rosedale	Baltimore County	58	39	12	42	151
21030	Cockeysville	Baltimore County	48	43	6	36	133
21236	Nottingham	Baltimore County	24	50	3	32	109
21286	Towson	Baltimore County	29	26	13	30	98
21204	Towson	Baltimore County	15	31	1	29	76
21093	Lutherville Timonium	Baltimore County	11	16	3	31	61
21128	Perry Hall	Baltimore County	2	5	1	13	21
21219	Sparrows Point	Baltimore County	2	5	2	5	14
21117	Owings Mills	Baltimore County	387	440	83	240	1150
21632	Federalsburg	Caroline County	0	21	7	6	34
21629	Denton	Caroline County	0	13	3	7	23
21655	Preston	Caroline County	0	11	3	6	20

Shaded areas indicate locations of Chase Brexton Health Care sites.
Source: https://www.unitedstateszipcodes.org/

Appendix B: Patient Locations based on Zip Codes (Continued)

Zip Code	City	Jurisdiction	Non/ Uninsured	Medicaid/ CHIP/Other Public	Medicare	Private	Total Patients
21639	Greensboro	Caroline County	0	8	2	6	16
21660	Ridgely	Caroline County	0	8	2	2	12
21784	Sykesville	Carroll County	33	67	18	32	150
21157	Westminster	Carroll County	6	22	2	17	47
21158	Westminster	Carroll County	6	5	3	12	26
21074	Hampstead	Carroll County	1	7	4	8	20
21104	Marriottsville	Carroll County	1	7	4	4	16
21048	Finksburg	Carroll County	5	7	0	3	15
21102	Manchester	Carroll County	1	6	1	4	12
21207	Gwynn Oak	Baltimore City	319	512	113	305	1249
21218	Endor Gardens-Lakeside, Balto City	Baltimore City	109	569	108	386	1172
21215	Woodmore, Balto City	Baltimore City	139	534	106	196	975
21202	Penn-Fallsway, Balto City	Baltimore City	76	348	91	403	918
21217	Druid Heights, Balto City	Baltimore City	83	411	65	337	896
21201	Seton Hill, Balto City	Baltimore City	81	325	97	319	822
21229	Irvington, Balto City	Baltimore City	69	315	62	138	584
21206	Frankford, Balto City	Baltimore City	81	283	43	123	530
21224	Graceland Park, Balto City	Baltimore City	138	181	28	158	505
21213	Belair-Edison, Balto City	Baltimore City	59	287	51	106	503
21216	Walbrook, Balto City	Baltimore City	38	308	54	103	503
21230	Baltimore	Baltimore City	67	177	31	136	411
21223	Carrollton Ridge, Balto City	Baltimore City	39	238	40	76	393
21212	Bellona-Gittings, Balto City	Baltimore City	45	145	24	89	303
21239	Idlewood, Balto City	Baltimore City	36	170	29	54	289
21211	Hampden, Balto City	Baltimore City	33	91	19	139	282
21231	Upper Fells Point, Balto City	Baltimore City	35	98	22	115	270
21205	Orangeville Industrial Area, Balto City	Baltimore City	34	145	16	59	254
21214	Lauraville, Balto City	Baltimore City	37	111	20	61	229
21209	Cheswolde, Balto City	Baltimore City	37	84	13	69	203
21226	Hawkins Point, Balto City	Baltimore City	18	46	5	15	84
21210	Wyndhurst, Balto City	Baltimore City	10	18	10	38	76
21203	Downtown, Balto City	Baltimore City	2	9	7	4	22
21613	Cambridge	Dorchester County	4	78	31	23	136
21643	Hurlock	Dorchester County	1	22	7	3	33
21701	Frederick	Frederick County	3	15	5	14	37
21771	Mount Airy	Frederick County	13	10	0	13	36
21703	Frederick	Frederick County	4	6	1	22	33
21702	Frederick	Frederick County	3	8	1	9	21
21704	Frederick	Frederick County	4	4	0	4	12
21774	New Market	Frederick County	2	1	0	8	11
21040	Edgewood	Harford County	16	35	5	19	75
21001	Aberdeen	Harford County	3	18	4	15	40
21009	Abingdon	Harford County	7	12	1	16	36

Shaded areas indicate locations of Chase Brexton Health Care sites.
Source: https://www.unitedstateszipcodes.org/

Appendix B: Patient Locations based on Zip Codes (Continued)

Zip Code	City	Jurisdiction	Non/ Uninsured	Medicaid/ CHIP/Other Public	Medicare	Private	Total Patients
21014	Bel Air	Harford County	2	13	1	13	29
21085	Joppa	Harford County	3	10	1	7	21
21015	Bel Air	Harford County	0	6	0	14	20
21078	Havre De Grace	Harford County	2	3	1	11	17
21045	Columbia	Howard County	670	668	147	344	1829
21075	Elkridge	Howard County	450	237	55	162	904
21043	Ellicott City	Howard County	261	219	57	157	694
20723	Laurel	Howard County	289	158	40	128	615
20794	Jessup	Howard County	182	115	31	82	410
21046	Columbia	Howard County	92	140	30	105	367
21042	Ellicott City	Howard County	64	103	26	76	269
20763	Savage	Howard County	74	22	7	26	129
21163	Woodstock	Howard County	18	38	8	18	82
21029	Clarkesville	Howard County	16	29	5	21	71
20777	Highland	Howard County	6	8	2	8	24
20759	Fulton	Howard County	6	5	3	5	19
21797	Woodbine	Howard County	4	6	3	6	19
21036	Dayton	Howard County	2	7	1	3	13
21738	Glenwood	Howard County	0	5	1	7	13
21044	Columbia	Howard County	364	457	88	252	1161
21620	Chestertown	Kent County	3	10	8	10	31
20904	Silver Spring	Montgomery County	18	18	6	13	55
20866	Burtonsville	Montgomery County	20	15	4	12	51
20906	Silver Spring	Montgomery County	17	9	1	12	39
20905	Silver Spring	Montgomery County	3	13	0	10	26
20852	Rockville	Montgomery County	11	5	1	7	24
20902	Silver Spring	Montgomery County	7	5	1	10	23
20910	Silver Spring	Montgomery County	1	5	2	15	23
20874	Germantown	Montgomery County	4	9	2	6	21
20832	Olney	Montgomery County	4	5	0	7	16
20901	Silver Spring	Montgomery County	2	4	1	9	16
20886	Burtonsville	Montgomery County	5	0	1	9	15
20912	Takoma Park	Montgomery County	6	2	2	5	15
20878	Gaithersburg	Montgomery County	6	3	0	4	13
20895	Kensington	Montgomery County	0	1	0	11	12
20854	Potomac	Montgomery County	2	4	0	5	11
20707	Laurel	Prince George's County	275	91	17	63	446
20708	Laurel	Prince George's County	247	53	10	57	367
20705	Beltsville	Prince George's County	68	21	2	22	113
20706	Lanham	Prince George's County	46	5	4	11	66
20784	Hyattsville	Prince George's County	24	11	1	11	47
20774	Upper Marlboro	Prince George's County	16	11	2	11	40
20770	Greenbelt	Prince George's County	9	9	2	13	33
20785	Hyattsville	Prince George's County	18	8	1	5	32

Shaded areas indicate locations of Chase Brexton Health Care sites.
Source: https://www.unitedstateszipcodes.org/

Appendix B: Patient Locations based on Zip Codes (Continued)

Zip Code	City	Jurisdiction	Non/ Uninsured	Medicaid/ CHIP/Other Public	Medicare	Private	Total Patients
20783	Hyattsville	Prince George's County	18	4	1	7	30
20740	College Park	Prince George's County	13	5	2	8	28
20721	Bowie	Prince George's County	13	3	1	6	23
20720	Bowie	Prince George's County	9	4	0	9	22
20715	Bowie	Prince George's County	6	5	3	7	21
20716	Bowie	Prince George's County	5	6	3	6	20
20737	Riverdale	Prince George's County	10	5	1	4	20
20782	Hyattsville	Prince George's County	6	6	1	7	20
20772	Upper Marlboro	Prince George's County	2	5	0	10	17
20743	Capitol Heights	Prince George's County	4	2	1	8	15
20744	Fort Washington	Prince George's County	5	4	1	5	15
20710	Bladensburg	Prince George's County	6	4	0	3	13
20747	District Heights	Prince George's County	3	7	0	2	12
21617	Centreville	Queen Anne's County	0	7	0	10	17
21638	Grasonville	Queen Anne's County	0	14	0	1	15
21666	Stevensville	Queen Anne's County	1	7	1	3	12
21619	Chester	Queen Anne's County	1	7	2	1	11
21853	Princess Anne	Somerset County	1	4	2	8	15
21601	Easton	Queen Anne's County	6	92	37	50	185
21673	Trappe	Talbot County	1	21	3	3	28
21663	Saint Michael's	Talbot County	0	7	3	5	15
21740	Hagerstown	Washington County	6	16	4	6	32
21742	Hagerstown	Washington County	2	6	0	6	14
21804	Salisbury	Wicomico County	1	21	6	23	51
21801	Salisbury	Wicomico County	2	15	8	12	37
21811	Berlin	Worcester County	0	4	1	6	11
Total			9677	14985	2714	9448	36824

Shaded areas indicate locations of Chase Brexton Health Care sites.
Source: https://www.unitedstateszipcodes.org/

Appendix C: Chronic Disease Indicators: Rates by Jurisdictions

Indicators	Anne Arundel County	Baltimore City	Baltimore County	Howard County	Talbot County	Maryland
Adult Self-Reported Health Status (% reporting Excellent, very good, or Good)	86.6	79.7**	83.6	91.6	83.7	85.1**
Adult Smoking Prevalence (%)	14.3	21.3	13.8	6.6	13.4	13.5
Adult Obesity Prevalence (%)	30.2*	35.3*	31.1*	22.7*	29.8*	30.7*
Adult Hypertension Prevalence (%)	30.9	38.5	35.7	28.5	37.2	33.5*
Adult High Cholesterol Prevalence (%)	30.5	30.3	33.5**	36.2	33.7	33.2*
Adult Diabetes Prevalence (%)	10.5	12.8*	11.1*	8.3	11.4*	11*
Adult Asthma Prevalence (%)	14.5	18.7*	15.5	13.2	16.0	14.5*
Exercise in Past 30 Days (%)	78.6	73.1**	75.1	82.5	77.3**	76.3**
Fruit Intake (% reporting eating < 1 time per day)	37.1	42.5	37.7	30.4	33.0	35.9*
Vegetable Intake (% reporting eating <1 time per day)	18.8	23.9*	23.2	16.6	13.1	20.4*
Youth Smoking Prevalence (%)	6.0	6.0	4.2	2.7	5.1	5.0**
Youth Obesity Prevalence (%)	12.5*	19.5	13.2	7.4*	15.6	12.8*
Total Age-Adjusted Mortality Rate (per 100,000)	713.4*	1019.2*	765.1*	537.8*	625.4*	711.8*
Age-Adjusted Ischemic Heart Disease Mortality (per 100,000)	82.0	123.7	107.1	60.7	73.5	92.1*
Age-Adjusted Cancer Mortality (per 100,000)	151.9	196.3*	164	118.5*	123.7*	151.3*
Age-Adjusted Stroke Mortality (per 100,000)	47.3*	53.8*	44.4*	34.1	32.1	40.0*
Age-Adjusted Chronic Lower Respiratory Disease Mortality	35.9**	35.0**	31.3**	17.1**	30.2	30.3**
Age-Adjusted Diabetes Mortality (per 100,000)	16.5*	31.3*	18.7*	12.1*	12.8	19.7*

* Black>White (statistically significant based on 95% confidence intervals)
** Black<White (statistically significant based on 95% confidence intervals)
Data Source: 2019 MD BRFSS - Chronic Disease Risk Behaviors and Outcomes: https://health.maryland.gov/phpa/ccdpc/Reports/Documents/MD-BRFSS/Chronic%20Disease%20Burden%20Tables%202019%20Final.pdf

Appendix D: HPSA Designations in the Service Area

Discipline	HPSA Name	Designation Type	Jurisdiction	HPSA FTE Short	HPSA Score	Rural Status
Primary Care	West Central Baltimore	High Needs Geographic HPSA	Baltimore City, MD	29.61	14	Non-Rural
Primary Care	CF-Baltimore Central Booking and Intake Center	Correctional Facility	Baltimore City, MD	25.21	6	Non-Rural
Dental Health	ME-West Central Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	17.19	17	Non-Rural
Mental Health	CF-Baltimore Central Booking and Intake Center	Correctional Facility	Baltimore City, MD	11.00	6	Non-Rural
Primary Care	ME-Middle River	Medicaid Eligible Population HPSA	Baltimore County, MD	8.02	13	Non-Rural
Dental Health	Talbot County	Geographic HPSA	Talbot County, MD	7.45	14	Rural
Primary Care	ME-Southeastern Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	5.53	18	Non-Rural
Dental Health	ME- East Central Baltimore	Medicaid Eligible Population HPSA	Baltimore City, MD	5.10	16	Non-Rural
Dental Health	South Baltimore City	High Needs Geographic HPSA	Baltimore City, MD	5.02	18	Non-Rural
Dental Health	ME - Claremont	Medicaid Eligible Population HPSA	Baltimore City, MD	4.41	15	Non-Rural
Primary Care	ME-West Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	4.13	19	Non-Rural
Mental Health	ME-West Central Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	4.01	19	Non-Rural
Dental Health	ME-South East Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	3.81	16	Non-Rural
Mental Health	ME - South Baltimore	Medicaid Eligible Population HPSA	Baltimore City, MD	3.64	18	Non-Rural
Dental Health	East Baltimore City	High Needs Geographic HPSA	Baltimore City, MD	3.56	17	Non-Rural
Mental Health	ME-East Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	3.338	16	Non-Rural
Primary Care	ME-East Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	3.32	16	Non-Rural
Primary Care	ME - North Baltimore	Medicaid Eligible Population HPSA	Baltimore City, MD	3.05	16	Non-Rural
Primary Care	LI - North Central Baltimore City	Low Income Population HPSA	Baltimore City, MD	2.867	21	Non-Rural
Dental Health	ME-North Central Baltimore	Medicaid Eligible Population HPSA	Baltimore City, MD	2.74	15	Non-Rural
Dental Health	ME-Upper Anne Arundel/Lower Baltimore Counties	Medicaid Eligible Population HPSA	Anne Arundel County, MD | Baltimore County, MD	2.74	11	Non-Rural
Primary Care	ME-Upper Anne Arundel & Lower Baltimore Counties	Medicaid Eligible Population HPSA	Anne Arundel County, MD | Baltimore County, MD	2.33	11	Non-Rural
Dental Health	ME-Dundalk	Medicaid Eligible Population HPSA	Baltimore County, MD	1.98	12	Non-Rural
Mental Health	ME-Southeastern Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	1.61	18	Non-Rural
Mental Health	LI - Northwest Baltimore City	Low Income Population HPSA	Baltimore City, MD | Baltimore County, MD	1.527	20	Non-Rural
Primary Care	ME-Harford SA	Medicaid Eligible Population HPSA	Baltimore City, MD	1.39	17	Non-Rural
Primary Care	ME-Glen-Falstaff	Medicaid Eligible Population HPSA	Baltimore City, MD	1.15	16	Non-Rural
Primary Care	ME-Southern Baltimore City	Medicaid Eligible Population HPSA	Baltimore City, MD	1.00	13	Non-Rural
Mental Health	ME-Upper Anne Arundel & Lower Baltimore Counties	Medicaid Eligible Population HPSA	Anne Arundel County, MD | Baltimore County, MD	0.76	12	Non-Rural
Mental Health	Maryland Correctional Institution - Jessup	Correctional Facility	Anne Arundel County, MD	0.52	12	Non-Rural
Primary Care	ME-Southern Park Heights	Medicaid Eligible Population HPSA	Baltimore City, MD	0.17	9	Non-Rural

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2015–2019

Chase Brexton Health Care

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