FY2021 – 2022

NORTHSIDE HOSPITAL

GWINNETT · DULUTH

Community Health Needs Assessment

Adopted by the Northside Hospital, Inc. Planning Committee, July 20, 2021

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Executive Summary

NORTHSIDE HOSPITAL
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Executive Summary

About Northside Hospital Gwinnett and Northside Hospital Duluth

Located in the heart of Gwinnett County, Northside Hospital Gwinnett ("NHG") is a Level II Trauma Center that offers nationally recognized and renowned health care services. This 388-bed hospital includes the Strickland Heart Center's cardiovascular specialties, the Gwinnett Women's Pavilion, cancer genetic testing, and has more than 4,000 employees.

Northside Hospital Duluth ("NHD") combines a quiet, healing environment with the latest in medical technology. Featuring private, spacious patient rooms and comfortable family suites, this 122-bed hospital has more than 1,000 employees and promotes patient healing while offering the very latest medical care for efficient treatment and quick recovery times.

The Timing of the CHNA

Northside Hospital Gwinnett and Northside Hospital Duluth were formerly part of Gwinnett Hospital System. On August 28, 2019, Gwinnett Hospital System and its subsidiaries merged with and into Northside Hospital, Inc. Gwinnett Hospital System conducted a Community Health Needs Assessment (CHNA) in 2019 for its fiscal year ending June 30, 2019.

This CHNA report's purpose is to meet the requirement of Internal Revenue Code Section 501(r)(3), IRS Notice 2011-52 and the Affordable Care Act for merged and acquired hospital facilities. This CHNA was submitted to the Planning Committee in July 2021 and was conducted prior to the fiscal year ending September 30, 2021, to ensure compliance with the following statement:

A hospital organization that acquires a hospital facility (through merger or acquisition) must meet the requirements of Section 501(r)(3) with respect to the acquired hospital facility by the last day of the organization's second taxable year beginning after the date on which the hospital facility was acquired.

Community Benefit

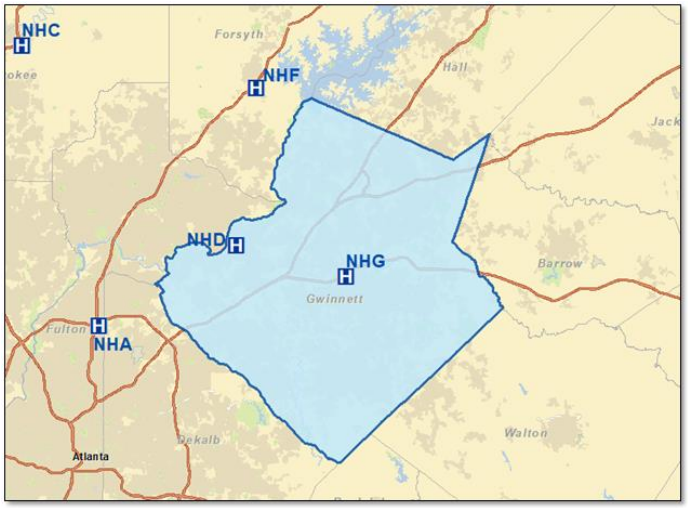
Northside Hospital Gwinnett and Northside Hospital Duluth, as not-for-profit entities, have a history of being mission driven to improve the health and wellbeing of the community. Both facilities provide community benefit through education, support groups, screenings and other community outreach.

The Community

Northside began this CHNA process by defining Northside Gwinnett and Northside Duluth's community separately and significant overlap was revealed for the communities served. NHG and NHD developed a single community definition (Gwinnett County) for the FY 2021 CHNA in compliance with IRS Section 501(r) Final Rule.

FY 2021 CHNA Community Definition

The Northside Gwinnett and Northside Duluth Community consists of Gwinnett County.



Population Characteristics:

- 925,000 residents or 9% of Georgia's total population.
- Anticipated 8% growth rate compared to Georgia's rate of 6%.
- Slightly younger than Georgia; median age of 35.0 compared to Georgia's 36.8.
- Predominantly White (45%) with the Black population (29%) comprising the 2nd largest racial group.
- 13% of the Gwinnett's population is Asian.
- 19% of Georgia's total Hispanic population resides in Gwinnett County; comprises 21% of Gwinnett's population.
- Large percentage of households speak language other than English at home (34%) compared to Georgia (14%).
- 9% of the population had limited English proficiency, compared to Georgia (3%).
- Large percentage of foreign-born persons (25%) compared to Georgia (10%).
- Gwinnett County is one of the most diverse counties in Georgia.

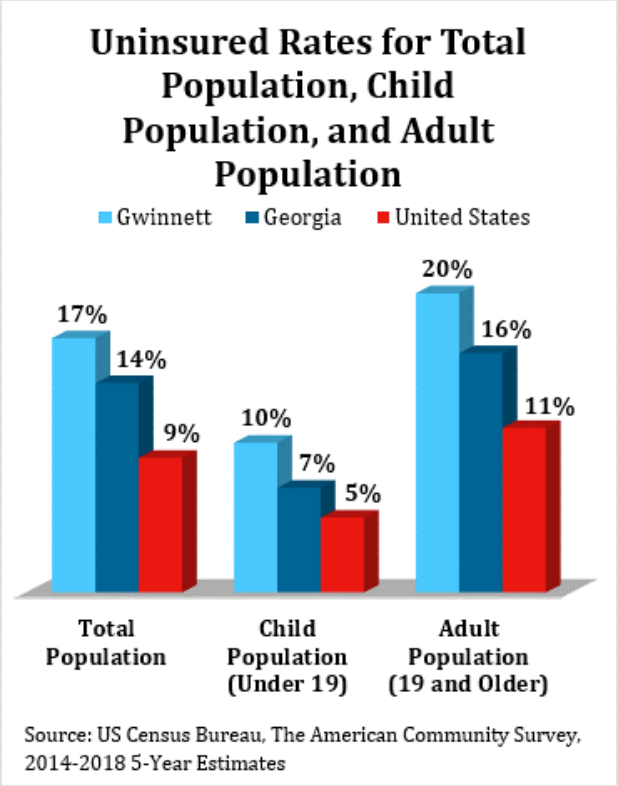
Socioeconomic Characteristics:

- 37% of Gwinnett's residents hold a Bachelor's degree or higher, compared to 31% in Georgia.
- Median disposable income, household income, household net worth, and median housing unit value in Gwinnett County are all higher than Georgia's averages.
- County members, on average, spend approximately 5% more than the national average on housing costs, compared to Georgians that spend about 8% less per year.

- ✧ However, disparities do exist especially along racial and ethnic lines.
    - Hispanic and Some Other Race populations make up disproportionately more of the county's population living in poverty compared to their race/ethnicity's representation within the county's total population.

Access to Care

Lack of health insurance poses a significant access barrier to preventive and specialty care. Persons who are uninsured are less likely to seek out or receive preventive care and are more likely to be admitted to the hospital for preventable conditions. Seventeen percent (17%) of the county's population was uninsured in 2018. Also, there are significant disparities in insurance coverage by racial and ethnic groups, specifically among the Hispanic and Some Other Race populations.



Source: US Census Bureau, The American Community Survey, 2014-2018 5-Year Estimates

Access to a Primary Care Physician ("PCP") is an important step in maintaining good health. There are many reasons that a person may or may not have a regular PCP, including economics, transportation, or geographic access. Geographic access can, in part, be measured by the rate of PCPs within the population. Gwinnett County's PCP/100,000 population rate is lower than Georgia's and the national rate.

In addition, the U.S. Department of Health & Human Services has designated one area within the county as a Medically Underserved Population ("MUP").

- ✧ The county's MUP is located in the western portion of the county, near Norcross.

Vulnerable populations often rely on Federally Qualified Health Centers ("FQHC") for healthcare services. Unfortunately, the county is underserved by FQHCs compared to Georgia and national use rates.

As a result of these access issues, in 2019 the three general acute care hospitals located in Gwinnett County contributed a total of $233 million in net uncompensated indigent and charity care. NHG contributed the largest amount totaling nearly $150 million.

Health Behaviors

Healthy lifestyle behaviors can help reduce risk factors for numerous diseases such as heart disease, cancer, diabetes, and other chronic conditions. Gwinnett County had higher rates of participating in healthy lifestyle behaviors when compared to Georgia and the United States. However, despite outperforming the state on most healthy lifestyle measures, the Community still has several areas for improvement.

Nutrition

Most adults consume less than 5 servings of fruits and vegetables per day.

Physical Activity

25% of adults reported no daily physical activity.

Alcohol Consumption

15% of adults drink excessively compared to 14% state-wide.

Smoking

14% of adults reported actively smoking cigarettes some days or every day.

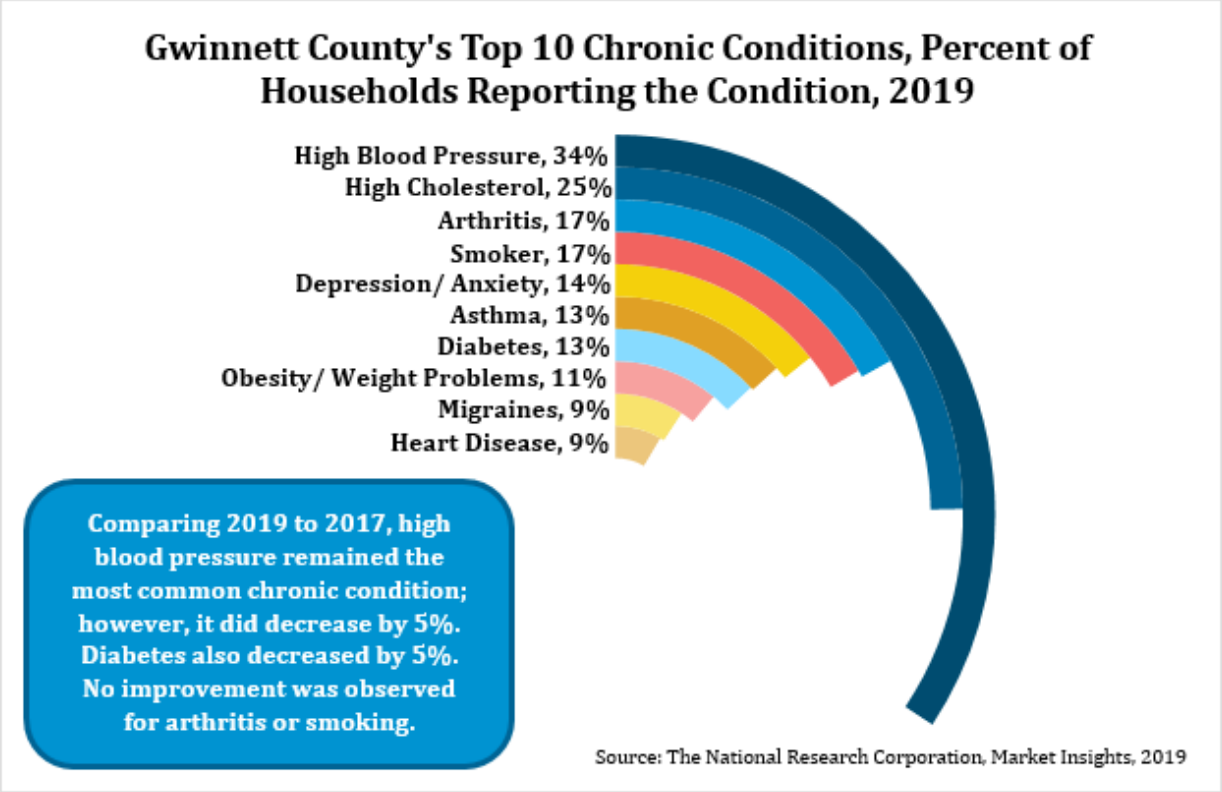
Preventive screenings also play an important role in maintaining good individual and community health. According to the National Research Corporation's ("NRC") 2019 Survey, the top 10 preventive health behaviors in Gwinnett County are:

Gwinnett County's Top 10 Preventive Health Behaviors	
1. Blood Pressure Test, 55%	6. Cholesterol Test, 31%
2. Eye Exam, 46%	7. Mammogram, 23%
3. Dental Exam, 45%	8. Pap Smear, 21%
4. Flu Shot, 39%	9. BMI (Body Mass Index) Screening, 16%
5. Routine Physical Exam, 38%	10. Diabetes Screening, 15%

Much like other health behaviors, there are disparities in the practice of preventive screening between low-income and high-income populations, between racial and ethnic groups, as well as between the uninsured and those with insurance.

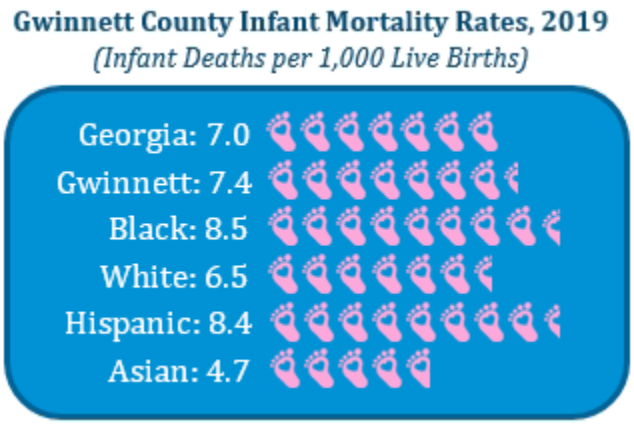
Health Outcomes

Health behaviors and other health determinants, like social and economic factors, converge to produce specific health outcomes for a community. High blood pressure, high cholesterol, arthritis, and smoking were the most common chronic conditions in Gwinnett County, each impacting more than 15% of the Community households. The incidence of these chronic conditions align with the two leading causes of death in the county, diseases of the heart and cancer.



The leading cause of death across all races in Gwinnett County was cancer. Much like health behaviors, disparities exist along racial and ethnic lines among the top chronic conditions and causes of death. For instance, Multiracial, White, and Black populations had higher hospital discharge rates for diabetes and major cardiovascular diseases than other racial groups. Non-Hispanic Black males had the highest incidence rate of cancer, largely driven by a high incidence rate of prostate cancer. High blood pressure and high cholesterol was more common in White and Black populations. The Asian population reported higher rates of asthma and Hispanic population had a higher percentage of smokers. These disparities also exist among levels of income and insurance as well. For example, depression/anxiety

disorder and arthritis were more prevalent chronic conditions in low-income households and among the uninsured.



Another important measure of Gwinnett County's health status is the health status of our Community's mothers and babies, a population of particular concern to Northside. As a recognized leader in obstetrical and neonatal care, Northside consistently delivers more babies than any other Georgia hospital, and often more than any hospital nationally. According to America's Health Rankings, Georgia has one of the highest rates of infant mortality in the U.S., ranking 43rd out of 50 states in 2019. Gwinnett County's Infant Mortality Rate ("IMR") of 7.4 was slightly higher than Georgia's of 7.0. Within Georgia and the county, there were significant disparities in infant mortality between racial groups. In 2019, in Georgia, Black infants had more than double the infant mortality rate of White infants with an IMR of 10.7 compared to 5.2. Within Gwinnett County, Black infants had an IMR of 8.5 and Hispanic infants had an IMR of 8.4, compared to White infants (6.5) and Asian infants (4.7). Northside analyzed IMRs over a 10-year period, 2010 – 2019, and although rates did not show a clear growth/decline, the disparity between the Black population and other racial/ethnic groups was consistent across the 10-year time period. Similar racial disparities are also seen for premature births and low-birth weight babies.

Our Community Stakeholders

Stakeholder interviews were conducted for this CHNA in order to provide additional insight into the health needs of the Community. Northside identified individuals in the Community who could provide a unique perspective and connection to the Community's health needs. Special efforts were made to identify individuals who fit this description and also possessed a special knowledge or expertise in public health. In this process, Northside reached out to 11 stakeholders, which included representatives from the county-level public health department in Gwinnett County. These efforts resulted in the

completion of 6 stakeholder interviews. Each interview was conducted using Northside's Stakeholder Assessment Discussion Guide, a copy of which is included in Appendix A. Stakeholders offered insight on a variety of topics related to the health needs of the Community, including positive health assets within the Community, negative health factors within the Community, physical health needs, barriers to accessing primary/specialty healthcare, and more. This information was invaluable in helping to prioritize the health needs of the Community and develop an implementation plan to address those needs.

Needs Northside Will Address

This CHNA for Northside Gwinnett and Northside Duluth was conducted on an interim cycle to ensure with Section 501(r) guidance governing merged and acquired hospital facilities. Northside plans to reevaluate the community health needs of Northside Gwinnett and Northside Duluth in connection with its next system-wide CHNA, which will be published by September 30, 2022. Accordingly, given the limited time period to implement the needs identified through this CHNA, Northside has chosen to focus on the following needs over the upcoming year, and will further consider, evaluate and prioritize the needs of the Gwinnett Community in connection with its next system-wide CHNA.

1) Cancer
2) Culturally Competent Healthcare Services
3) Diabetes & Obesity

Needs Northside Will Not Address

As noted above, although the following needs will not be addressed over the next year, Northside will further consider and determine if and how to address these needs in connection with its FY 2022 system-wide CHNA.

1) Cardiovascular Disease
2) Maternal & Infant Health
3) Affordability, Access to Care, & Insurance Coverage Status
4) Mental Health & Addiction
5) Healthy Lifestyle Behaviors
6) HIV/AIDS
7) Respiratory Diseases/Smoking
8) Affordable & Adequate Housing/Homelessness
9) Transportation

Overview of Implementation Strategy

Northside intends to utilize myriad community benefit strategies to address the prioritized health needs including:

1) Financial assistance on behalf of uninsured, underinsured and low-income persons.
2) Community health improvement services, including:
    a. Community health education outreach
    b. Community-based clinical services for reduced cost or free
    c. Healthcare support services such as enrollment assistance for government-funded health programs.
3) Health professions education.
4) Subsidized health services.
5) Medical and healthcare research.
6) Cash and in-kind contributions to assist partner organizations in addressing community health needs.

Northside also intends to continue using the Community Benefit Steering Committee to oversee Northside's community benefit program activities to ensure that activities are reaching the most vulnerable populations, are using evidenced-based medicine interventions and to improve capture and reporting.

Introduction to Northside Hospital Gwinnett and Northside Hospital Duluth

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Part I: Introduction to Northside Hospital Gwinnett and Northside Hospital Duluth

About Us

In 1970, Northside began its commitment to the health and wellness of the Atlanta community with the opening of Northside Hospital Atlanta; a 250-bed general acute care hospital located in North Atlanta with a network of 240 physicians. In 2019, through its merger with Gwinnett Hospital System, Northside Hospital, Inc. ("Northside") added two hospitals to its system. Northside is now a not-for-profit healthcare system composed of five (5) general acute care hospitals.

The purpose of this Community Health Needs Assessment (CHNA) is to meet the requirements under section 501(r) for merged and acquired facilities by conducting a CHNA prior to the end of the second taxable year following the effective date of Northside's merger with Gwinnett Hospital System, which was effective August 28, 2019. The intent of this CHNA is to meet this requirement for two of our newest hospitals - Northside Hospital Gwinnett and Northside Hospital Duluth. Northside intends to include Northside Hospital Gwinnett and Northside Hospital Duluth in its next system-wide CHNA, which is scheduled to be completed by September 30, 2022

Our Mission

Through all of the growth, Northside has remained steadfast and committed to its mission. Northside Hospital is committed to the health and wellness of our community. As such, we dedicate ourselves to being a center of excellence in providing high-quality healthcare. We pledge compassionate support, personal guidance and uncompromising standards to our patients in their journeys toward health of body and mind. To ensure innovative and unsurpassed care for our patients, we are dedicated to maintaining our position as regional leaders in select medical specialties. And to enhance the wellness of our community, we commit ourselves to providing a diverse array of educational and outreach programs.

Our Values

Northside's outstanding reputation in its industry is fueled by an instinctive devotion to a unique set of values. This statement of values defines and communicates those guiding, motivating philosophies that have led us to distinction:

- ✧ Excellence
- ✧ Compassion
- ✧ Community
- ✧ Service
- ✧ Teamwork
- ✧ Progress & Innovation

Northside Hospital Gwinnett

Located in the heart of Gwinnett County, Northside Hospital Gwinnett is a Level II Trauma Center that offers nationally recognized and renowned health care services. This 388-bed hospital includes the Strickland Heart Center's cardiovascular specialties, the Gwinnett Women's Pavilion, cancer genetic testing, and has more than 4,000 employees.

Northside Hospital Duluth

Northside Hospital Duluth combines a quiet, healing environment with the latest in medical technology. Featuring private, spacious patient rooms and comfortable family suites, this 122-bed hospital has more than 1,000 employees and promotes patient healing while offering the very latest medical care for efficient treatment and quick recovery times.

CHNA Methodology

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Part II: CHNA Methodology

Our Community Health Needs Assessment Process

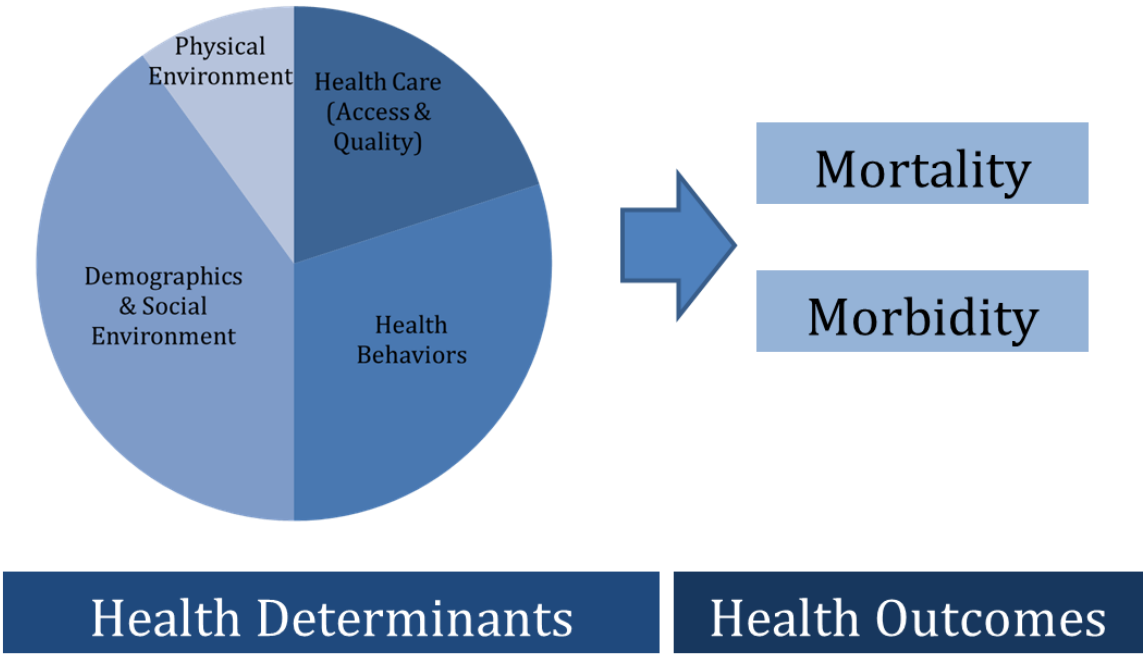
Northside developed a standardized process for conducting its Community Health Needs Assessment. In short, Northside's CHNA process included:

1) Defining the Northside Hospital Gwinnett and Northside Hospital Duluth community.
2) Reviewing Northside's internal data.
3) Reviewing publicly available health data.
4) Reviewing proprietary quantitative consumer research data.
5) Performing stakeholder interviews.
6) Summarizing and prioritizing the health needs identified within Northside's Community.
7) Developing an implementation plan to address the identified needs.
8) Presenting the finalized CHNA and Implementation Plan to the Board of Directors of Northside Hospital, Inc. for adoption.
9) Providing continued public access to Northside's CHNA via www.Northside.com/Community and providing an opportunity for public feedback via Northside.chna@northside.com.

Framework for CHNA

To perform its FY 2021 CHNA, Northside utilized an evidence-based model of population health adapted from the Wisconsin Population Health Institute and also utilized by County Health Rankings and Roadmaps (County Health Rankings & Roadmaps, 2015). This model illustrates the complexity of assessing a community's health status by outlining the factors that act in combination to determine the current status of a community's health. The evidence-based model, illustrated in **Figure 1**, outlines the health determinants (demographics and social environment, healthcare access & quality, health behaviors, and the physical environment) that lead to the health outcomes in a community (morbidity and mortality).

Figure 1: Population Health Framework for Northside's (NHG and NHD) FY 2021 CHNA



Source: http://www.countyhealthrankings.org/our-approach

The Centers for Disease Control and Prevention ("CDC") performed a systematic literature review to determine a common set of health metrics that should be used to measure both the health determinants and health outcomes presented in **Figure 1**. Northside used the CDC's list of "Most Frequently Recommended Health Metrics" to determine what variables to consider for Northside's FY 2021 CHNA. Northside utilized the CDC's recommended variables and metrics when they were readily available at the county level (Centers for Disease Control and Prevention, 2013). The variables analyzed for Northside's FY 2021 CHNA for each health determinant and outcome category are outlined in Table 1.

Table 1: Health Metrics for NHG and NHD FY 2021-2023 CHNA		
Health Determinant	**Variables Considered**	
Demographics & Social Environment	Total Population Population Growth Gender Age Race Ethnicity Foreign Born Language at Home Limited English Proficiency	Urban/Rural Educational Attainment Employment Status (unemployment rates) Income Poverty Level Marital Status/Social Support Violence and Crime
Healthcare (Access & Quality)	Health Professional Shortage Areas and MUAs Federally Qualified Health Center Preventable Hospital Events Physician Access Dental Care Access	Prenatal Care Access Health Insurance Coverage Hospitals and Number of Beds per 10,000 Healthcare Utilization Indigent and Charity Care
Health Behaviors	Preventive Health Behaviors Preventive Cancer Screenings Sexually Transmitted Infections	Substance Use (Tobacco, Alcohol) Nutrition Physical Activity
Physical Environment	Housing Transportation	Food Access Access to Recreational Facilities
Health Outcome	**Variables Considered**	
Morbidity	Cancer Rates Chronic Conditions Health Status HIV/AIDS STIs	Unintentional Injuries Hospital Utilization Maternal/Infant Health
Mortality	Leading Causes of Death Maternal/Infant Health Suicide	Homicide Unintentional Injuries

Our Community

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Part III: Our Community

Defining Northside's Community Geographically

Northside defined the scope of its community, for the purposes of this CHNA, by using the following methodology for each hospital:

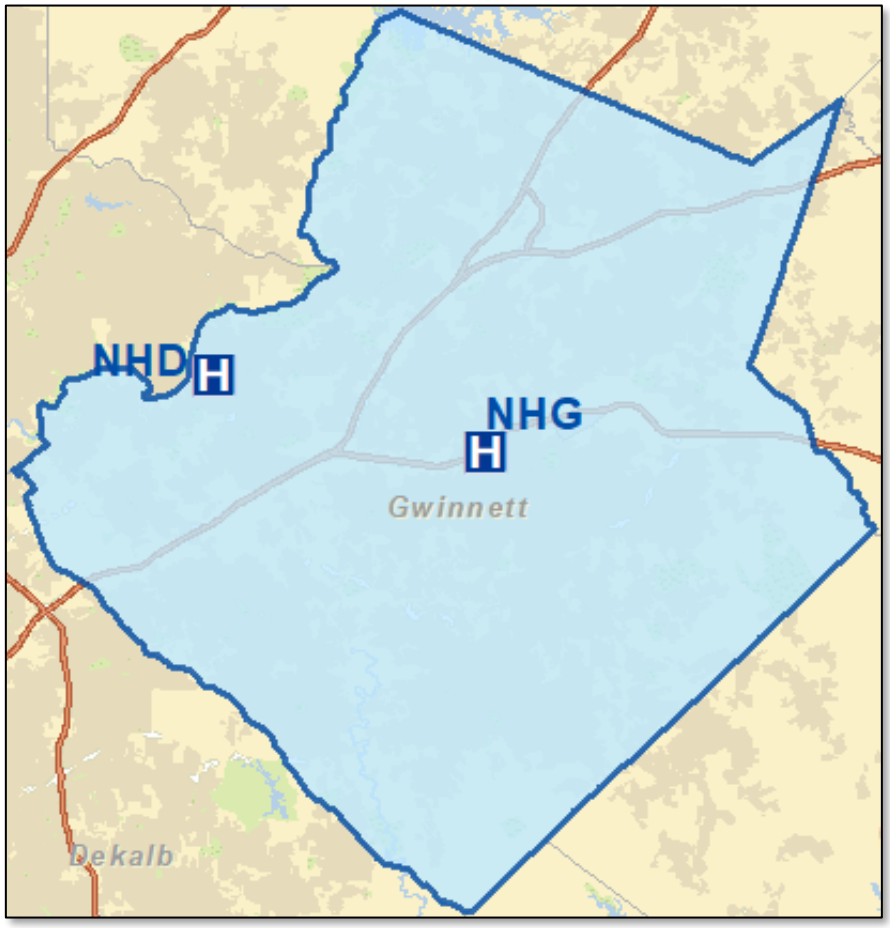
1) Defined the facility's (NHG and NHD) primary patient catchment area based on a contiguous area that represented approximately a 75% average of each facility's inpatient and outpatient volume.
2) Determined where the medically underserved areas were in and around each facility's patient catchment area to ensure no medically underserved, low-income, or minority populations within or near the facility's catchment area were excluded.
3) Mapped each facility's distribution of outpatient locations across the region.

The results of defining each hospital's community separately revealed significant overlap in the communities served by each Northside Hospital facility. Given the geographic proximity of Northside's two hospitals, this result is not surprising. Thus, NHG and NHD developed a single community definition for the FY 2021 CHNA. With a single community definition (Gwinnett County) and in compliance with IRS Section 501(r) Final Rule, NHG and NHD conducted a joint CHNA on what will be referred to as the Community or Gwinnett County for FY 2021.

Northside Hospital Gwinnett and Northside Hospital Duluth Community Defined: Gwinnett County

From January 2016 to May 2019, patients from Gwinnett County represented an average of 75% of NHG and NHD's total patient volume. NHG had a total of 77% Gwinnett residents and NHD had a total of 73% Gwinnett residents.

Figure 2: Northside Hospital Gwinnett and Northside Hospital Duluth FY 2021 CHNA Community Definition



Demographics of Gwinnett County

Background and Overview

In 2019, Gwinnett County represented over 9% of Georgia's total population. It is Georgia's second most populous county after Fulton County. Gwinnett County is slightly younger and growing at a faster rate than Georgia's population overall. Gwinnett County is also more racially and ethnically diverse than Georgia overall. For example, within Gwinnett County, there is an 80% chance that two people randomly chosen will belong to different racial or ethnic groups, compared to a 65% chance in Georgia overall (ESRI, 2019). Additionally, approximately 19% of Georgia's total Hispanic population lives within Gwinnett County.

Population

In 2019, the estimated **924,563** residents of Gwinnett County represented roughly 9% of Georgia's total population (ESRI, 2019). The four most populous cities in Gwinnett County, include Peachtree Corners, Lawrenceville, Duluth, and Sugar Hill (U.S. Census Bureau, 2014-2018).

Population growth projections between 2019 and 2024 estimate an 8% population increase in Gwinnett County compared to 6% in Georgia overall (ESRI, 2019).

Age and Gender

Gender and age both play a part in understanding the type of preventive and medical services needed within a community. For example, the 65+ cohort typically utilizes healthcare services at a higher rate than the general population. Additionally, other age groups (e.g. 40+) have milestones like recommended preventive screenings, or they represent the target population of a key service (e.g. women ages 15-44 and obstetric services). Based on this knowledge, the age and gender patterns of the Community, along with certain key age/gender groups are highlighted in this section.

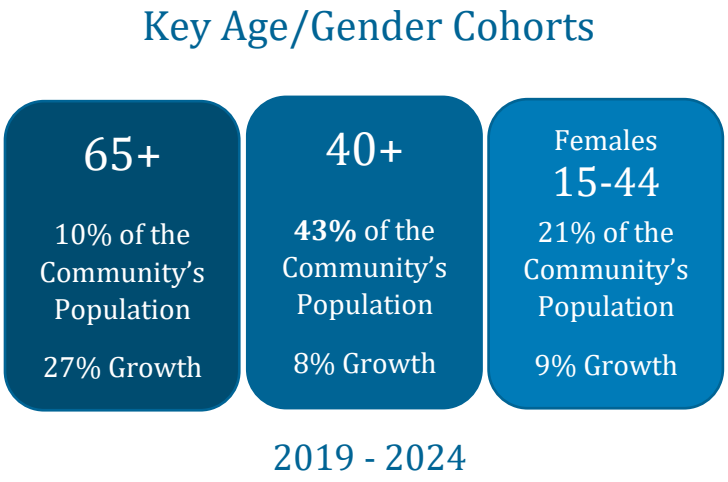
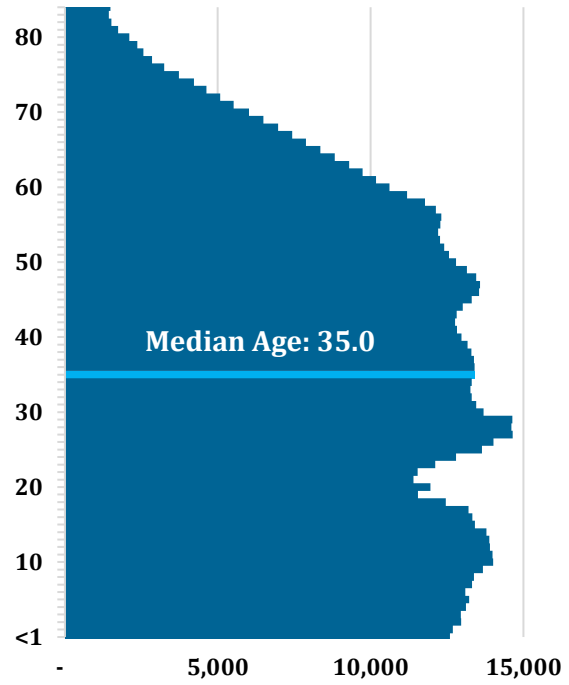


Figure 3: Age Breakdown of Gwinnett County, 2019



Source: ESRI, 2019
Note: The 85+ age cohort is not represented in the figure; however, this age cohort was taken into account for median age.

In 2019, the median age in Gwinnett County was 35.0, slightly younger than Georgia's median age of 36.8. Just over 10% of the Community's population was aged 65 or older. The 65 or older age cohort is projected to grow at a faster rate than any other age cohort in the Community with 27% projected growth between 2019 and 2024. As aforementioned, this cohort typically utilizes healthcare services at a higher rate than the general population, and is thus important to consider in health planning efforts.

As for the other key age cohorts, the 40+ cohort represented 43% of the population in 2019, while females ages 15-44 represented 21% of the community's population. These cohorts were projected to grow by 8% and 9%, respectively, between 2019 and 2024. It is noteworthy that the female age 15-44 cohort was projected to grow at a rate that is greater than the total Gwinnett County population (8%) over the same time period. In 2019, Gwinnett County was 51% female and 49% male with Georgia reflecting a similar 50/50 gender split (ESRI, 2019).

Race and Ethnicity

It is essential that all Community members, regardless of race and ethnicity, have access to and receive quality healthcare. Despite this goal there are well-documented health disparities that exist along racial and ethnic lines in the United States, and Gwinnett County is no different. It is important to understand the racial and ethnic make-up of Gwinnett County in order to fully understand any health disparities that exist along racial and ethnic lines and properly tailor community benefit programs to the most appropriate populations within the Community. In 2019, Gwinnett County was predominately White (45%), with the Black population (29%) comprising the 2nd largest racial group. The remaining minority groups included, Asian (13%), Other races (9%), two or more races (4%), Pacific Islander (<1%), and American Indian (<1%). Within Gwinnett County, there was a probability of 80% that two population members, randomly chosen, belong to different

race or ethnic groups, compared to Georgia's probability of 65%. This probability is known as the Diversity Index (ESRI, 2019).

In 2019, approximately 19% of Georgia's Hispanic population lived within Gwinnett County and represented 21% of Gwinnett County's population (ESRI, 2019).

Figure 4: Population by Race as a Percent of Total Population in Gwinnett County, 2019

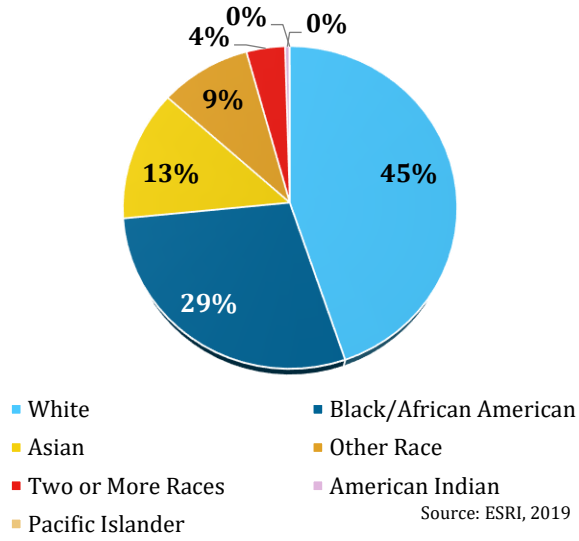
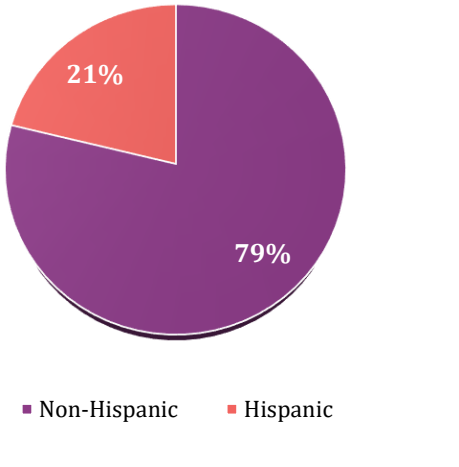


Figure 5: Population by Ethnicity as a Percent of Total Population in Gwinnett County, 2019



Foreign Born/Language at Home

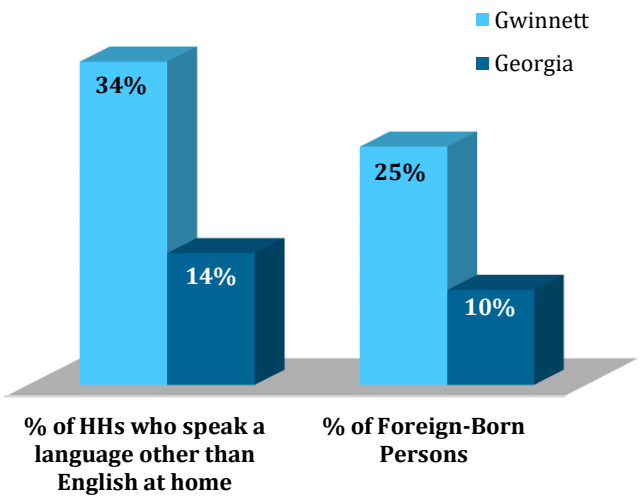
Twenty-five percent (25%) of Gwinnett County's population was foreign born based on the 2018 American Community Survey, compared to 10% in Georgia and 14% in the United States. This demonstrates not only the diversity of Gwinnett County, but also the importance of culturally competent healthcare services for the Community's residents. Further demonstrating this point, in 2018, 34% of households ("HH") within the Community spoke a language other than English within their home, compared to only 14% state-wide. This percentage varied greatly between Gwinnett County and Georgia, as illustrated in **Figure 6** (U.S. Census Bureau, 2014-2018).

Limited English proficiency can constitute a significant barrier to accessing healthcare for segments of the population. "Limited English proficiency" is defined by the American

Community Survey as persons, aged 5 and older, who speak a language other than English at home and speak English less than "very well". Within Gwinnett County, 9% of the population had limited English proficiency; this rate was higher than the rate of Georgia's population overall, 3%.

Within Gwinnett County, 57% of those with limited English proficiency spoke Spanish, 31% an Asian or Pacific Island language, 10% a different Indo-European language, and 2% other languages (U.S. Census Bureau, 2014-2018).

Figure 6: Households Who Speak a Language Other than English and Foreign-Born Population, 2018



Source: U.S. Census Bureau, 2014-2018 5-year Estimates

Socioeconomic Characteristics of Our Community

Background and Overview

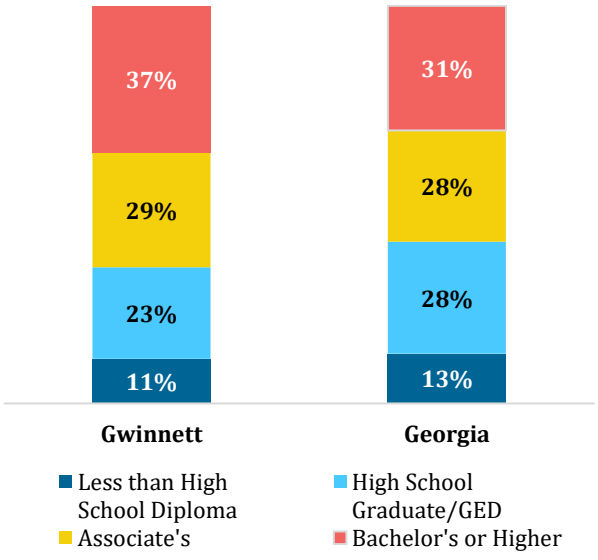
Socioeconomic characteristics such as income, poverty level, and educational attainment were examined for this CHNA because of their known correlation/impact on the health status of a population.

Overall, Gwinnett County's population had a high level of educational attainment and affluence compared to Georgia. This was illustrated through 37% of the population holding a Bachelor's Degree or higher, compared to 31% state-wide, as well as Gwinnett County's median disposable income, household income, household net-worth, and housing unit value all being higher than Georgia's (ESRI, 2019). Furthermore, there are significant disparities in poverty by race and ethnicity. The Hispanic and Some Other Race populations make up a disproportionately higher percentage of the county's population living in poverty compared to the percentage of their race/ethnicity within the county's total population (ESRI, 2019; U.S. Census Bureau, 2014-2018).

Educational Attainment

As more and more research has been conducted, evidence for the link between educational attainment (years/level of schooling) and living a longer, healthier life has become increasingly clear. Education can lead to better health as a result of a person having increased health knowledge and better health behaviors; improved employment and income prospects; and additional protective social/psychological factors (social standing, social networks, etc.) (Robert Wood Johnson Foundation, 2011).

Figure 7: Highest Level of Educational Attainment in Gwinnett County and Georgia, 2019



Source: ESRI, 2019

In 2019, Gwinnett County had a higher level of educational attainment than Georgia overall as 37% of the population (aged 25 or older) had a Bachelor's Degree or above compared to only 31% state-wide. Thirteen percent (13%) of Georgians did not have their high-school diploma or GED, compared to 11% of Gwinnett

County. Although, 11% is better than the state's average, this still represented over 67,201 Community residents over the age of 25 who had not completed high-school (ESRI, 2019).

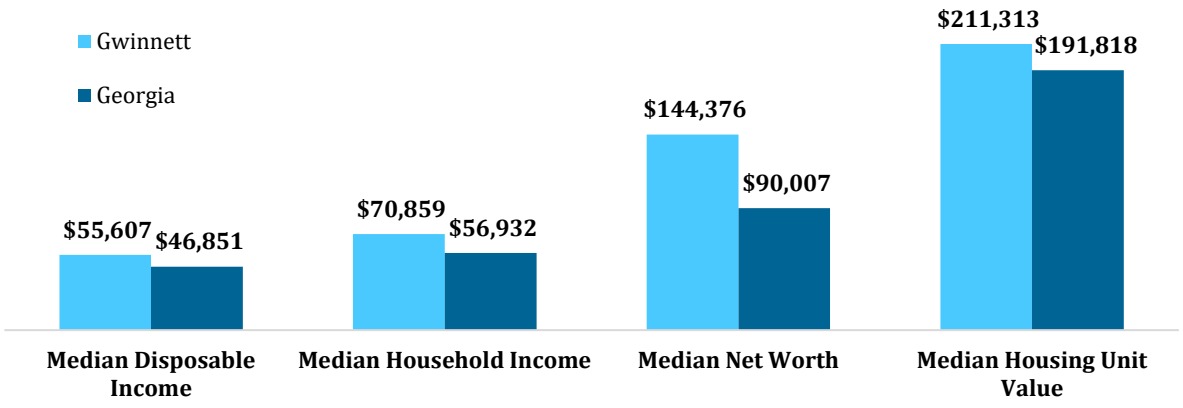
Employment

In the U.S., employment often implies a stable income and benefits (i.e., health insurance), both of which can lead to better health status. Furthermore, unemployment has been linked to poor health due to loss of health insurance, increased stress, unhealthy behaviors, and increased depression (Robert Wood Johnson Foundation, 2013). Gwinnett County had a higher percentage of its population in the workforce than state-wide, with 53% compared to 49%. The unemployment rate within the county was lower than Georgia's rate, 3.6% versus 4.9%, respectively. This is a marked improvement since 2017, when both the county and Georgia had unemployment rates of 5.2% and 5.9% respectively (ESRI, 2019).

Financial Status

Many choices families make surrounding their housing, education, nutrition, medical care, and many other factors are based on household income. Public health research has illustrated that families in higher income brackets, on average, are healthier and will live longer than families in lower-income brackets because of the many barriers and stresses related to poverty (County Health Rankings & Roadmaps, 2015). Based on the financial indicators analyzed for this CHNA, Gwinnett County appeared relatively affluent compared to Georgia on most variables. An overview of the county's financial status compared to Georgia is displayed in **Figure 8**.

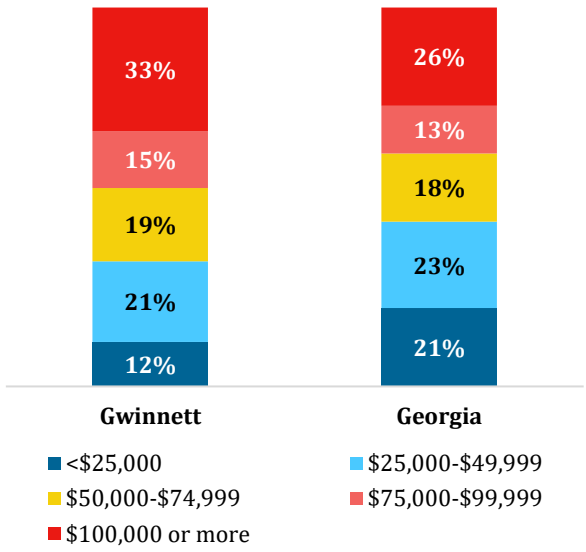
Figure 8: Comparison of Gwinnett County to Georgia on Key Financial Indicators, 2019



Source: ESRI, 2019

On all income measures analyzed, Gwinnett County was better off financially compared to Georgia overall. Median household income for the county was $70,859, approximately $14,000 more than Georgia's. Furthermore, the largest household income cohort in Gwinnett County was households with incomes of $100,000 or more (33% of households), compared to the largest cohorts in Georgia, households with incomes between $25,000 and $49,999 (23%) and $100,000 or more (26%) (ESRI, 2019).

Figure 9: Percent of Households in Each Income Bracket in Gwinnett County and Georgia, 2019



Source: ESRI, 2019

An additional measure to estimate the purchasing power of Gwinnett County is through a measure of household disposable income (after tax-income). The median household disposable income within the county was $55,607 compared to the State's median of $46,851 (ESRI, 2019). The average housing unit value followed a comparable trend to the other financial indicators, with the county's median household value estimated to be $211,313 compared to Georgia's median of $191,818. The county's high percentage of college degree holders versus Georgia's may explain why many of the county's financial indicators exceed state-wide rates (ESRI, 2019).

High housing-unit values illustrate affluence in Gwinnett County; however, they were also linked to a high cost of living within the area. County members, on average, spend approximately 5% more than the national average on housing costs; compared to Georgians that spend about 8% less per year than the national average (ESRI, 2019).

Poverty

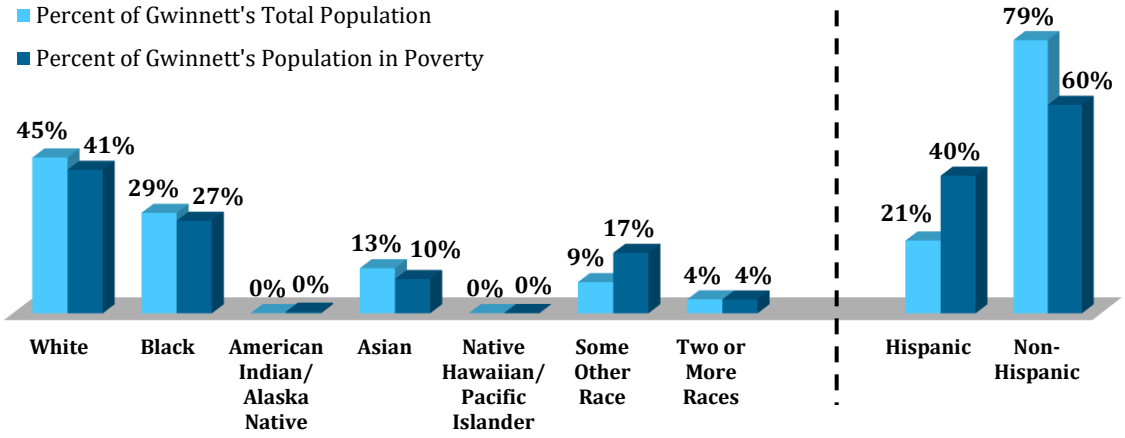
The United States Census Bureau defines poverty based on a set of income thresholds that vary based on family size and composition (age of family members). Overall, Gwinnett County had a smaller portion of its population below 100% the federal poverty level (FPL) than Georgia, 11% compared to 16%. However, 11% of Gwinnett County represented nearly 102,000 population, illustrating that poverty does still exist within the county at a significant rate (U.S. Census Bureau, 2014-2018).

Figure 10: Rates of Poverty within Gwinnett County

Source: U.S. Census Bureau, The American Community Survey, 2014-2018 5-year Estimates

As seen in **Figure 11**, disparities were evident when comparing the county's total population by race and ethnicity with the percent of the county's population living in poverty by race and ethnicity. Although the Hispanic population only comprises 21% of the county's population it made up 40% of the county's population living in poverty. Similarly, the Some Other Race population only makes up 9% of the county's population but made up 17% of the county's population living in poverty (U.S. Census Bureau, 2014-2018).

Figure 11: Gwinnett County's Total Population and Population in Poverty by Race and Ethnicity



Source: ESRI, 2019; US Census Bureau, The American Community Survey, 2014-2018 5-year Estimates

Marital Status/Social Support

A growing body of research has illustrated that social and emotional support systems have a positive effect on health. Public Health studies have found that social support is linked to decreased risks of mortality, improved health behavior, and hospital re-admittance and recovery (Reblin & Uchino, 2008). In 2019, within Gwinnett County, 53% of the population (15 and older) was married, 34% had never been married, 9% was divorced, and 4% was widowed (ESRI, 2019). To further analyze the county's social support systems, the percentage of adults who self-reported on the CDC's Behavioral Risk Factor Surveillance System survey that they do not have adequate social/emotional support was analyzed. Eighteen percent (18%) of the county's population indicated they did not have ample support, compared to 21% in Georgia and the U.S. (U.S. Census Bureau, 2014-2018).

Violence and Crime

The fear of crime adversely impacts both the physical and mental health of Community members through increased stress levels, restricted movement, and restricted amount of time spent outside of the home. These factors can then lead to limited social ties, limited time spent outdoors pursing physical activity and can produce unwanted stress on the nervous and immune system (Stafford, Chandola, & Marmot, 2007). Violent crimes include homicide, rape, robbery, and aggravated assault. Gwinnett County had a much lower rate of violent crimes per 100,000 population (231) than Georgia (373) or the United States (416) (FBI, 2015-2017).

Urban/Rural

Urban and rural populations are classified based on differences in population density, count and size. Urban areas typically are much more developed than rural areas as well. Based on population, only 0.5% of Gwinnett County's population was considered to live in a rural setting, compared to Georgia's overall percentage of 25% (U.S. Census Bureau, 2010).

Healthcare Access and Quality

Background and Overview

Several variables determine whether healthcare is easily accessible to a community, including the availability of health insurance, local healthcare options and the ability to obtain a regular source of care. When populations do not have proper access to healthcare resources their preventive care, dental care, mental health, and chronic disease management needs are usually the first to suffer. Without proper management of health through preventive and routine care, emergency and inpatient services are often used at a higher rate and patients are first seen at a more advanced stage of their disease (County Health Rankings & Roadmaps, 2015).

Within Gwinnett County, there is one population that has been identified by the U.S. Department of Health & Human Services as a Medically Underserved Population. Gwinnett County's MUP is located in the western portion of the county near Norcross. These vulnerable populations often receive healthcare services from Federally Qualified Health Centers; however, Gwinnett County is underserved by federally qualified health centers compared to Georgia overall. Utilization of general/family practitioners within the county was approximately 2% less than the national average. This highlights the critical access barriers that the Community's MUPs face.

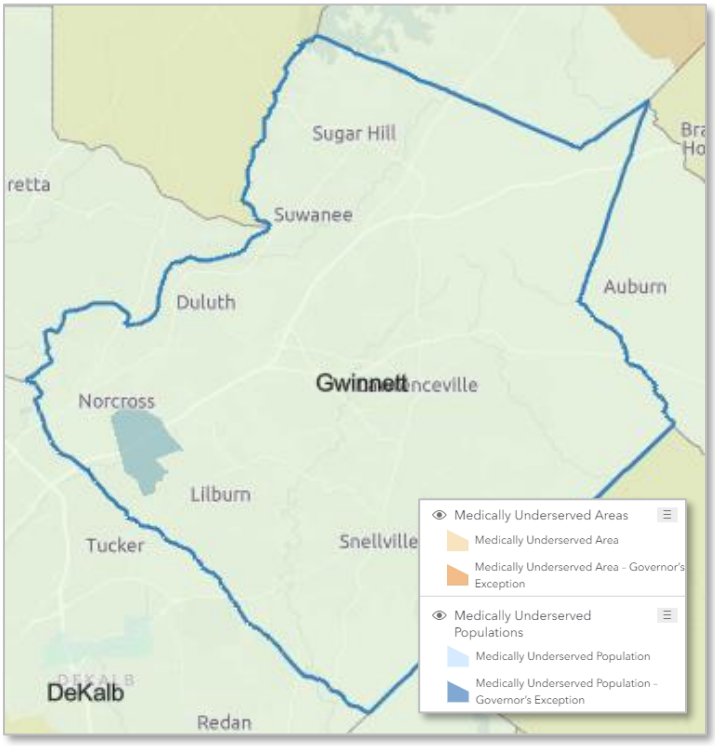
Contributing to access difficulties, Gwinnett County, like Georgia, has a large uninsured population compared to the United States and spends approximately 7% more than the national average on health insurance. Within the county, the Hispanic and Some Other Race populations make up a disproportionately higher percentage of the county's uninsured population compared to the percentage of their race/ethnicity within the county's total population. The Multi-racial group had the highest utilization for inpatient hospitalizations and the Black population had the highest emergency room utilization. High rates of inpatient and emergency room utilization point to a problem in obtaining the proper primary and preventive care services. Use of outpatient surgery and outpatient testing/treatment was higher in income groups making over $50,000 per year illustrating an access barrier based on finances. This same pattern occurred when comparing the uninsured and Medicaid populations to managed care and fee-for-service populations.

As a result of many of these accessibility needs, the hospitals located in Gwinnett County contributed a combined $233 million in net uncompensated indigent and charity care to Community members, with– NHG providing the largest amount of approximately $150 million.

MUAs/MUPs and Federally Qualified Health Centers

To highlight areas with low access to healthcare resources, Northside examined the location of Medically Underserved Areas ("MUA") and Populations, along with locations of Federally Qualified Health Centers.

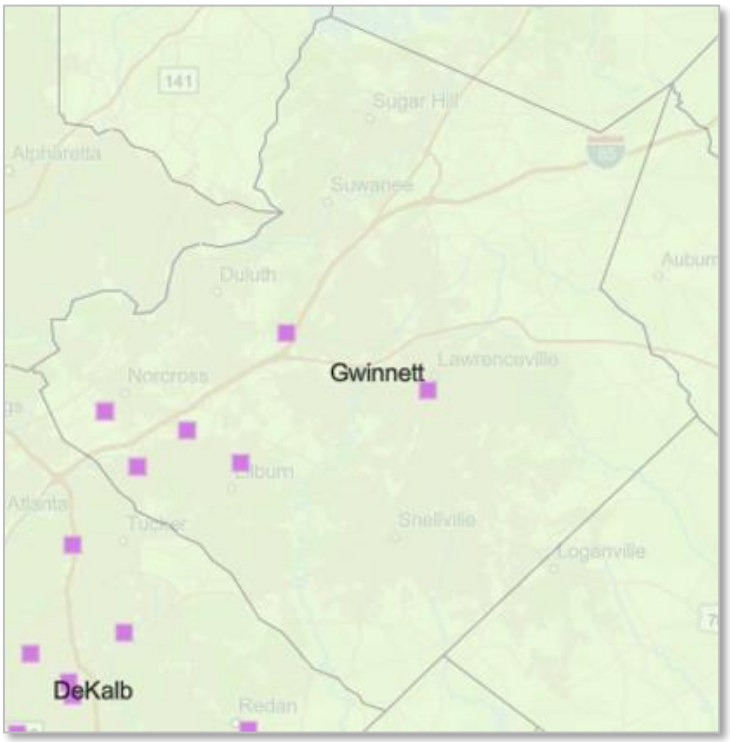
Figure 12: Location of MUAs and MUPs within Gwinnett County



Source: U.S. Department of Health & Human Services, HRSA Data Warehouse, MUA Finder, 2019

According to the U.S. Department of Health Resources and Services Administration, MUAs may be a whole county or a group of contiguous counties, a group of county or civil divisions or a group of urban census tracts in which residents have a shortage of primary care providers, high infant mortality, high poverty or a high elderly population (Health Resources and Services Administration, 2019). MUPs are similar to MUAs; however, instead of pertaining to the entire geographic area, MUPs are specific to a population group within the area. MUPs are usually limited to population groups with economic barriers, or cultural and/or linguistic access barriers to primary medical care services. The location of MUPs within Gwinnett County are illustrated in **Figure 12**. There were no MUAs in Gwinnett County.

Figure 13: Location of FQHCs within Gwinnett County in 2019



Source: US Department of Health & Human Services, HRSA Data Warehouse, 2019

Federally Qualified Health Centers include organizations that serve an underserved population or area by offering services on a sliding fee scale, providing comprehensive services, and ensuring the delivery of high quality services. FQHCs are assets to the community because of the care they provide disparate/ vulnerable populations (Health Resources and Services Administration, 2019). Within Gwinnett County there were 6 FQHCs in 2019; which equates to approximately 0.75 FQHCs per 100,000 population. This rate is significantly lower than Georgia's overall rate of 2.66 FQHCs and the U.S. rate of 3 FQHCs per 100,000 population. The locations of the FQHCs are shown in **Figure 13**.

WHY IS HAVING A PCP IMPORTANT?

"Having a primary care provider (PCP) is important for maintaining health and preventing and managing serious diseases. PCPs can develop long term relationships with patients and coordinate care across health care providers."

- Healthy People 2030

Physician Access and Utilization – Primary Care

Access to a Primary Care Physician is an important step in maintaining good health. There are many reasons that a person may or may not have a regular PCP, including economics, transportation, or geographic access. Geographic access can, in part, be measured by the rate of PCPs within the population. Gwinnett County had approximately 63 PCPs per 100,000 population based on 2017 estimates. This rate was lower than the Georgia rate of 66 and the U.S. rate of 77. When considering these numbers, it is important to remember these rates were calculated at the county-level, and that even within a county where there appears to be a significant number of PCPs, there could

be pockets where there is low access, especially where there are MUAs/MUPs (U.S. Department of Health & Human Services, 2017).

To understand if access translates to utilization, the ESRI 2019 Market Potential Index was used to compare Gwinnett County to the national average for the percent of the population to visit a general or family practitioner within the year. Members of Gwinnett County visited a general/family doctor approximately 2% less than the national average (ESRI, 2019).

Rate of PCPs within Gwinnett, GA, & US
(Rate per 100,000 people)

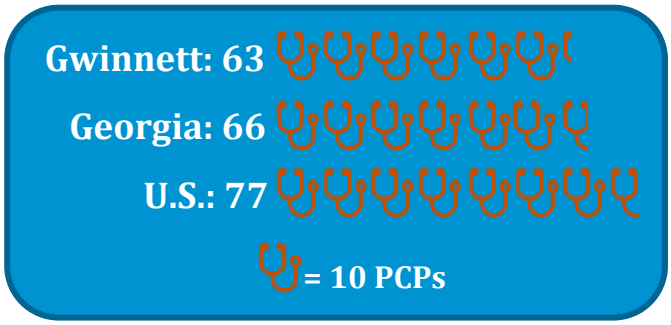
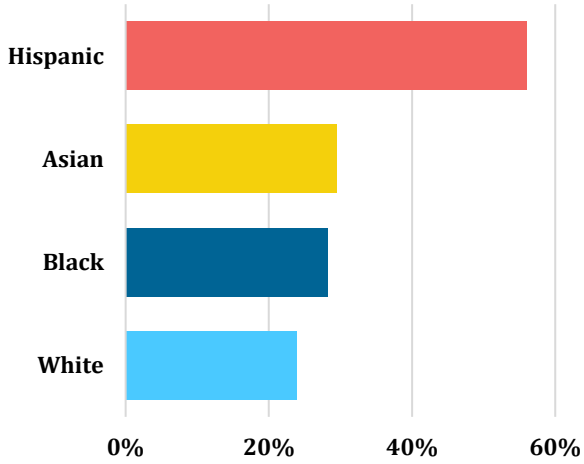


Figure 14: Percent of Adults in Georgia Who Reported Not Having a Regular Doctor by Race/Ethnicity, 2018



Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018

Persons without access to primary care physicians are more likely to have major health issues that could have been caught at an earlier stage and are more likely to use the emergency department. County level data was not available that stratified access to a consistent source of primary care by race; however, the data was available at the state-level and may broadly represent Gwinnett County. Within Georgia, 56% of Hispanics indicated they do not have a consistent source of primary care. Considering 19% of Georgia's Hispanic population is within Gwinnett County, this disparity is most likely present within the county as well as Georgia (Centers for Disease Control and Prevention, 2018).

Access and Utilization – Dental Care

Dental health is closely associated with overall health. Certain oral conditions can exacerbate other chronic conditions, while certain chronic conditions also worsen many oral health conditions. Based on 2015 data, within Gwinnett County, there were 56 dentists per 100,000 population. Gwinnett County had a higher density of dentists than Georgia overall, 49 per 100,000 population, but less than the United States, 66 per 100,000 population (U.S. Department of Health & Human Services, 2015). While data was not available for Gwinnett County's utilization of dentists, hygienists, or dental clinics, it was available for Georgia and the United States. When considering the percentage of adults who had not visited a dentist, hygienist or dental clinic in the past year Georgia's rate of 37% was slightly higher than the U.S. rate of 34% (Centers for Disease Control and Prevention, 2016).

WHY IS ORAL HEALTH IMPORTANT?

"Oral diseases cause pain and disability for millions of people in the United States, and some are linked to other diseases - like diabetes, heart disease, and stroke."

- Healthy People 2030

WHY IS PRENATAL CARE IMPORTANT?

"Women's health before, during, and after pregnancy can have a major impact on infants' health and well-being."

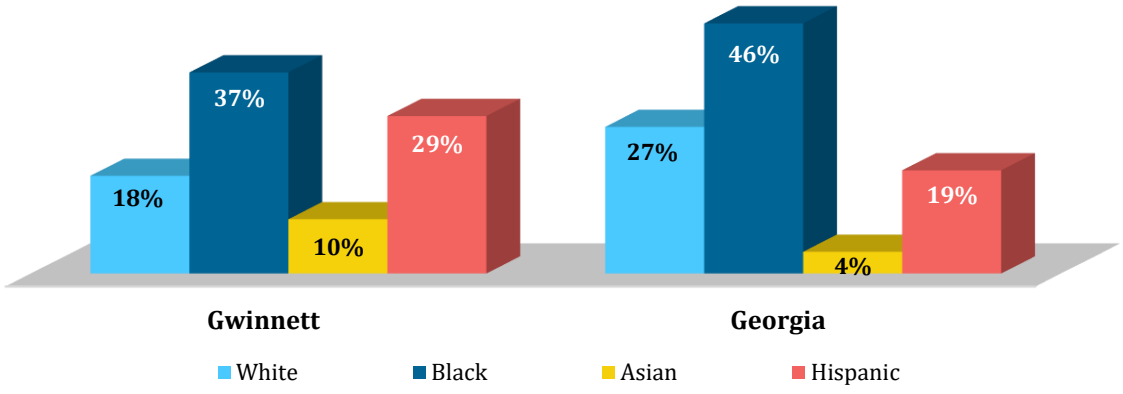
- Healthy People 2030

Access to Prenatal Care

Prenatal care is a key component to maternal and infant health. Regular prenatal care is associated with reduced risk of pregnancy complications and complications during infancy by ensuring the mother is following a healthy and safe diet, controlling existing medical conditions, reducing or eliminating harmful substance use during pregnancy, and monitoring for more serious complications (National Institutes of Health, 2013). Within Gwinnett County, 8% of mothers received late or no prenatal care in CY 2019, the equivalent of 854 mothers (Georgia Department of Public Health, 2019).

Rates of late or no prenatal care also differed along racial and ethnic lines. In Georgia, Black mothers accounted for 46% or more of births with late or no prenatal care during CY 2015-2019 and in Gwinnett County, black mothers accounted for 37% or more and Hispanic mothers accounted for 29% or more. Additional variables related to maternal and infant health are discussed in the Health Outcomes section of this CHNA.

Figure 15: Percent of Births to Mothers with Late or No Prenatal Care by Race/Ethnicity, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Preventable Hospital Events

One indicator that illustrates if sufficient primary care resources are available and accessible to community members is the number of preventable hospital events that occurred among residents. The conditions considered to be preventable include hospital admissions for pneumonia, dehydration, asthma, diabetes, and other similar conditions, because with access to proper primary care they would not have resulted in a hospital stay. Gwinnett County had a preventable hospital discharge rate of 43 per 1,000 Medicare enrollees. This rate was slightly lower than the Georgia rate of 50 and the U.S. rate of 49 (Dartmouth College Institute for Health Policy & Clinical Practice, 2015).

Health Insurance Coverage

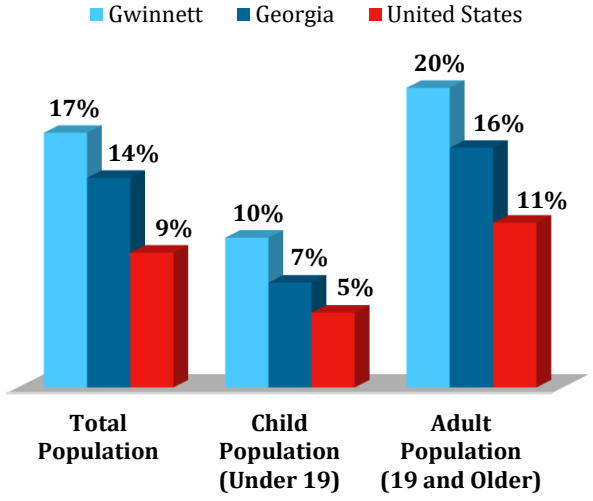
In terms of access to healthcare, having no health insurance is a large barrier to medical care. Persons who are uninsured are less likely to seek out or receive preventive care, are more likely to be admitted to the hospital for preventable conditions, and are also more likely to die in the hospital compared to the insured (Majerol, 2014). Pathways to health insurance in the United States generally vary by age; the elderly in the United States are nearly all covered through Medicare and populations under 65 usually receive health insurance as a benefit through their job, a family member's job, or through an exchange-based plan offered on the federally run healthinsurance.org. Additional programs, designed to help the low-income populations, include Medicaid (limited) and Peachcare for Kids.

WHY IS HEALTH INSURANCE IMPORTANT?

"People without insurance are less likely to get the health care services and medications they need and more likely to have poor health outcomes."

- Healthy People 2030

Figure 16: Uninsured Rates for Total Population, Child Population, and Adult Population

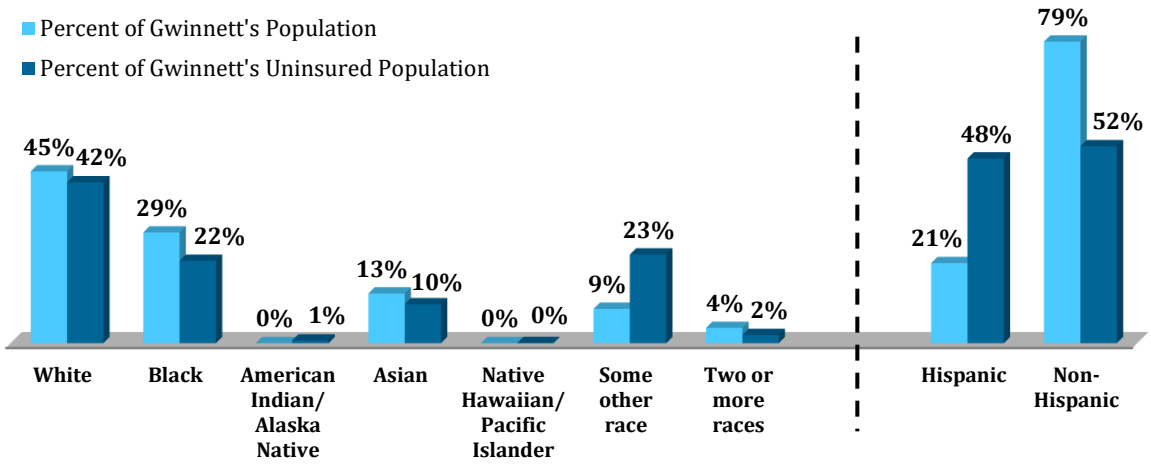


Source: US Census Bureau, The American Community Survey, 2014-2018 5-Year Estimates

The uninsured rate within Gwinnett County was higher than Georgia overall. Georgia and Gwinnett County had higher rates of uninsured than the United States overall for all three populations analyzed (total population, children, and adults 18-64) as shown in **Figure 16** (U.S. Census Bureau, 2014-2018).

Health insurance rates varied greatly by race and ethnicity within Gwinnett County, as illustrated in **Figure 17**. The "Some other race" population comprised only 8% of the county's population but accounted for 23% of the county's uninsured population. Similarly, the Hispanic population, made up 21% of the county's population and nearly half of the county's uninsured population (U.S. Census Bureau, 2014-2018).

Figure 17: Gwinnett County's Population by Race and Ethnicity and Uninsured Status



Source: ESRI, 2019; US Census Bureau, The American Community Survey, 2014-2018 5-year Estimates

One cause for the high rates among the uninsured in the Community may be costly insurance plans. In 2019, members of the Community, on average, spent 7% more than the state average on health insurance, or approximately $4,019 for the year, compared to the Georgia's average of $3,755 (ESRI, 2019).

Hospitals and Number of Beds per 10,000

In 2019, there were 3 general acute care hospitals[2] with a total of 780 approved beds located in the Gwinnett County. This resulted in 8 general acute care hospital beds per 10,000 population in the county compared to 24 general acute hospital beds per 10,000 population for the state; thus, the county has fewer beds per person as compared to Georgia; Gwinnett County's residents generated approximately 75% of the general acute care inpatient admissions in Gwinnett's three hospital facilities. Based on an optimal utilization rate of 75%, the county generated a total need for 768 general acute care IP beds. Based on the county's utilization, there is a slight surplus of general acute care inpatient beds as defined by the Georgia Department of Community Health (Georgia Department of Community Health, 2019).

[2] Excluded all specialty hospitals, including, long-term acute care, mental health or psychiatry, geriatric, orthopedic & spine, or rehabilitation

Healthcare Utilization

In 2019, Gwinnett County residents generated 70,494 inpatient discharges from non-Federal acute-care inpatient facilities representing 7% of Georgia's total inpatient discharges and 226,878 emergency room ("ER") visits representing 5% of Georgia's total ER visits. Gwinnett had a lower IP discharge rate than Georgia with 7,529 inpatient discharges per 100,000 population compared to 9,992; similarly, the Community's ER visit rate of 24,233 per 100,000 population was lower than Georgia's of 39,173. The top causes of IP hospitalizations and ER visits for the Community are listed in **Table 2** (Georgia Department of Public Health, 2019).

Table 2: Gwinnett County's Top 5 Causes for Hospital Utilization, 2019

IP Discharges		ER Visits	
Cause	**%**	**Cause**	**%**
Diseases of the Heart	7%	Unintentional Injuries	17%
Septicemia	5%	Chronic Lower Respiratory Diseases	2%
Unintentional Injuries	4%	Influenza and Pneumonia	2%
Malignant Neoplasms	3%	Essential (Primary) Hypertension and Hypertensive Renal Disease	2%
Cerebrovascular Diseases	2%	Diseases of the Heart	1%

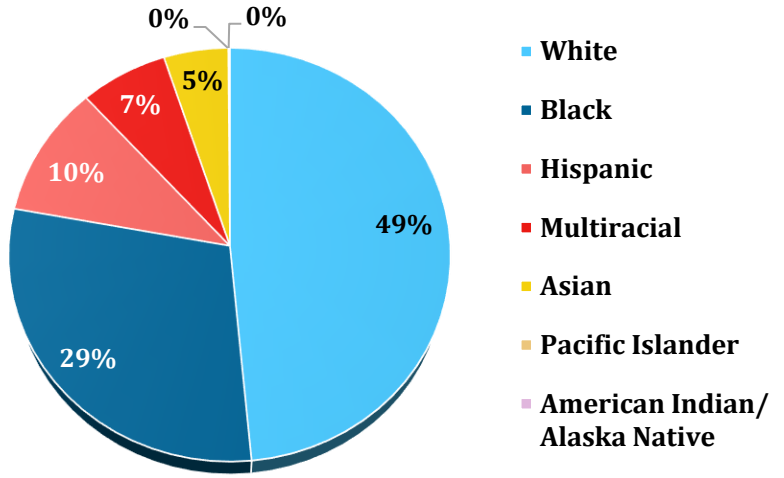
Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2019

Healthcare Utilization by Race

To determine if there were differences in healthcare utilization by race, three resources were utilized including the 2017 Annual Hospital Questionnaire, the Georgia Department of Public Health's ("GDPH") Online Analytical Statistical Information System ("OASIS") and the National Research Corporation's ("NRC")[3] 2019 Market Insights Survey results.

[3] The NRC was founded in 1981 as a healthcare research and quality improvement firm with extensive experience in designing, conducting, tabulating, and reporting consumer market research. With a client roster including more than 2,000 hospital facilities and 6,000 long-term care providers, NRC is well-respected in the healthcare industry.

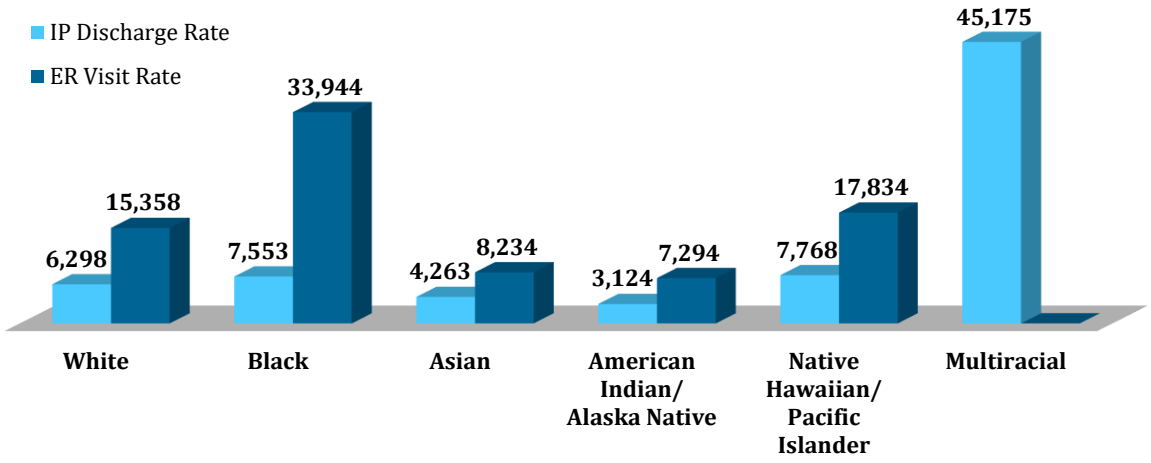
Figure 18: Inpatient Admissions to the 3 General Acute Care Hospitals located in Gwinnett County by Race/Ethnicity, CY 2019



Source: Georgia Department of Community Health, Annual Hospital Questionnaire, 2019

Admissions for the 3 hospitals in Gwinnett County are presented in **Figure 18** and largely reflect the demographic make-up of the Community. The Hispanic and Asian populations were possibly underserved based on a comparison of their population figures in the Community compared to admissions by race. However, the GA Department of Community Health classifies Hispanic as a race, whereas the U.S. Census classifies it as an ethnicity, which may account for some of the difference, 10% of total admissions versus 19% of the total population. While total IP admissions largely reflect the demographics of the county, data from the GDPH OASIS reveal that use rates for IP hospitalizations and ER visits vary by race within the county. These results are illustrated in **Figure 19.** The Multiracial group had the highest use rate for inpatient hospitalizations and Black, Native

Figure 19: Gwinnett County Hospital Utilization Rates (per 100,000 population) by Race, 2019



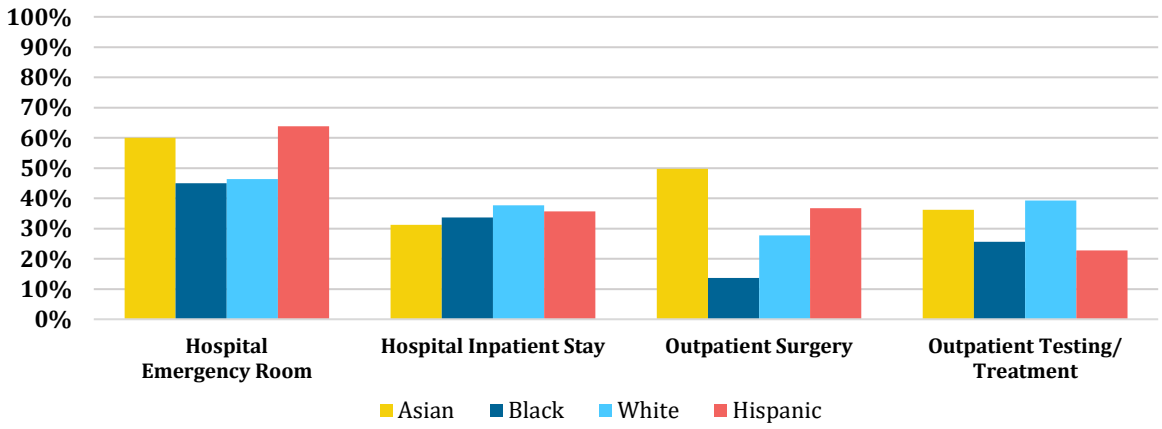
Source: Georgia Department of Public Health, Online Analytical Statistical Data System, 2019

Hawaiian/Pacific Islander, and White racial groups had the highest rates for ER visits. This data was not available by ethnicity, nor was data available for the Multiracial ER visit rate (Georgia Department of Public Health, 2019).

NRC data was utilized to analyze what services were used by each race and ethnicity to determine if there were any differences between races or ethnicities. The NRC Survey asked households to report their healthcare utilization by type of service (e.g., Hospital Inpatient Stay, Hospital Emergency Room, Outpatient/Same-Day Surgery and Outpatient Testing/X-Rays). When analyzing this data, the responses revealed that the Asian and Hispanic populations had a higher utilization of ER services, accounting for 60% and 64%, respectively, of these populations' total healthcare utilization compared to only 45% in the White population and 46% in the Black populations. Additionally, the Black populations' use of same-day surgery services was significantly lower than other racial/ethnic populations', as illustrated in **Figure 20** (National Research Corporation, 2019).

Figure 20: Gwinnett County Utilization of Healthcare Services by Race/Ethnicity, 2019

"Have you or a member of your household utilized any of these services in the past 3 years?"



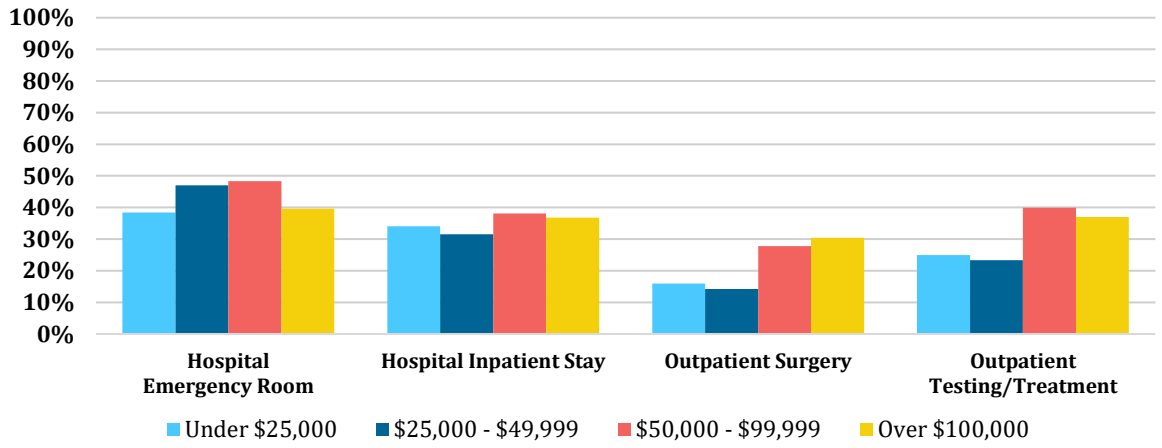
Source: The National Research Corporation, Market Insights, 2019

Healthcare Utilization by Household Income

According to the NRC Survey, in 2019 across all income levels, the hospital emergency room was the most frequently utilized healthcare service. While households of all income levels had access to the four types of healthcare services, it is important to note that households with incomes between $25,000 and $99,999 reported utilizing the hospital ER at higher rates compared to the lowest and highest income brackets. Furthermore, as household income increases so too does utilization of Outpatient/Same-Day Surgery and Outpatient Testing/X-Rays. This indicates access barriers to care to these services for lower income households in Gwinnett County (National Research Corporation, 2019).

Figure 21: Gwinnett County Utilization of Healthcare Services by Household Income, 2019

"Have you or a member of your household utilized any of these services in the past 3 years?"

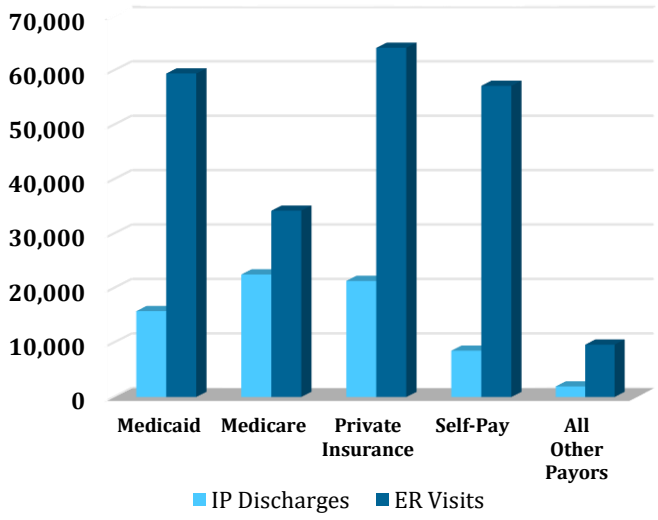


Source: The National Research Corporation, Market Insights, 2019

Healthcare Utilization by Insurance Type

Based on data from GDPH OASIS and the NRC 2019 Survey, the patients receiving inpatient care varied from those visiting the ER when considering payor type. Self-pay patients made up 12% of inpatient hospitalizations and 25% of ER visits. Comparatively, Medicare patients comprised 32% of inpatient hospitalizations and 15% of ER visits (Georgia Department of Public Health, 2019). Northside compared the type of healthcare utilization by populations with various types of health insurance based on NRC 2019 Survey results as well. The results of the analysis are displayed in **Figure 23.** Since the uninsured population is likely to delay obtaining healthcare services, this group had overall low utilization in every service category. The Medicaid population exhibited high rates of ER use and IP hospital stays, illustrating that the Medicaid population was not accessing preventive healthcare

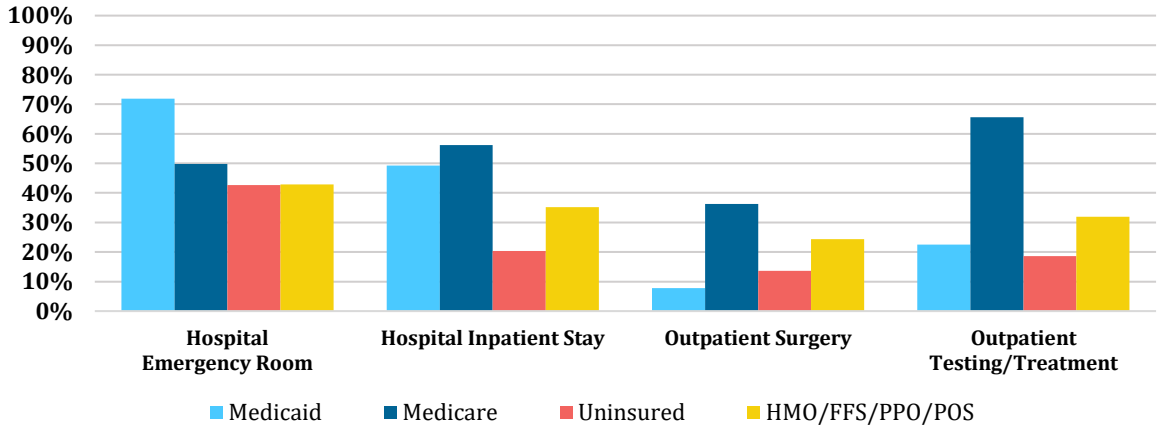
Figure 22: Gwinnett County's Hospital Utilization (IP & ER) by Payor Type, 2019



Source: Georgia Department of Public Health, Online Analytical Statistical Data System, 2019

Figure 23: Gwinnett County Utilization of Healthcare Services by Payor, 2019

"Have you or a member of your household utilized any of these services in the past 3 years?"



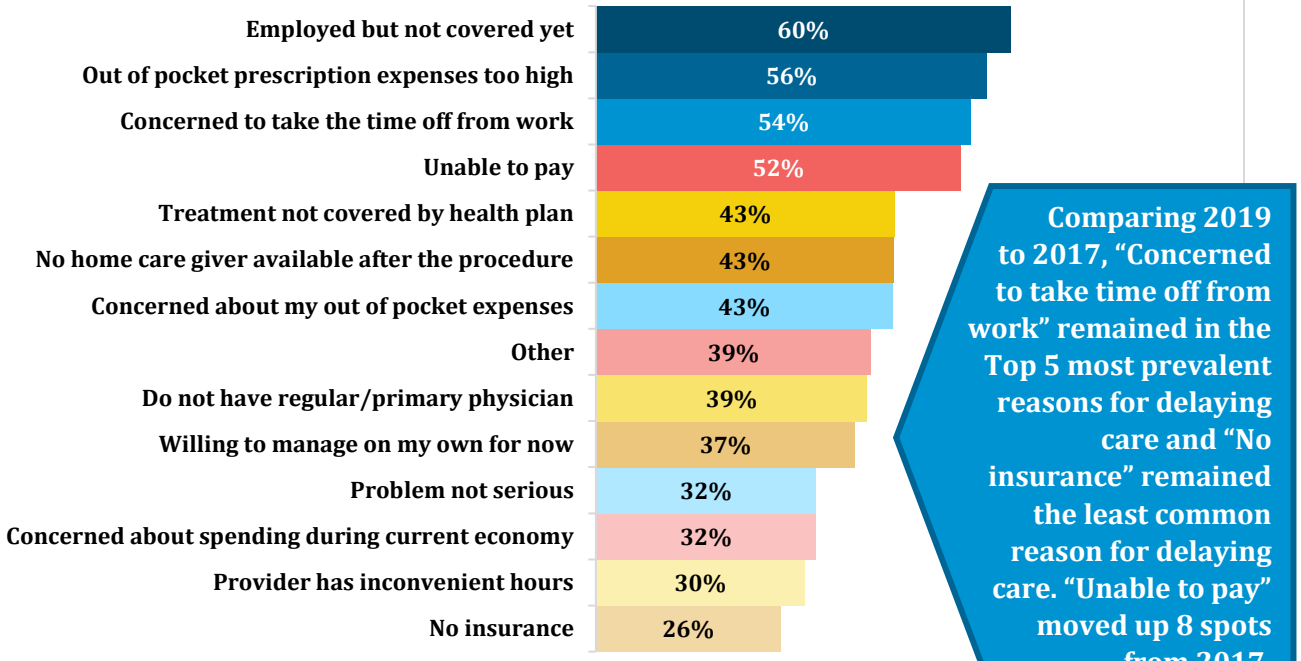
Source: The National Research Corporation, Market Insights, 2019

resources until they were emergent or severe enough for an inpatient hospital stay. The Medicare population accessed outpatient testing/treatment at a rate over double the amount of any other populations and also had the highest rates of hospital inpatient stays and outpatient surgeries. The commercially insured population utilized each service at a moderate rate compared to the other populations with the exception of Hospital Emergency Room visits which was tied with the uninsured group for the lowest utilization rate (National Research Corporation, 2019).

Reason for Delaying Medical Care

The number one reason Community members indicated they delayed medical care was because they were employed but not covered yet. The additional reasons for delayed care are provided in **Figure 24**. In this survey, more than one reason could be chosen by each survey respondent. Three of the top four responses were related to insurance or cost (National Research Corporation, 2019).

Figure 24: Reasons for Delaying Medical Care, Percentage of Households Surveyed in Gwinnett County, 2019

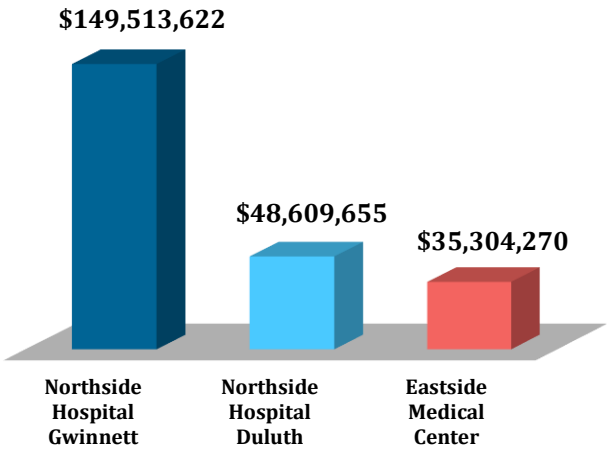


Source: The National Research Corporation, Market Insights, 2019

Indigent and Charity Care

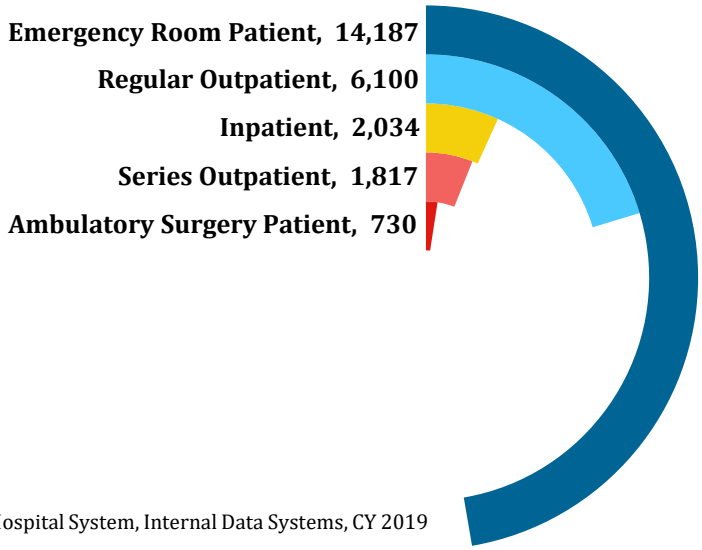
Indigent and charity care is often used as a metric for assessing a community's access to healthcare services, particularly for individuals with limited financial means. The total amounts of indigent and charity care provided by Gwinnett County hospitals varied. Northside's Gwinnett County hospitals provided approximately $198 million in net uncompensated indigent and charity care in FY 2019. Eastside Medical Center, a nearby for profit hospital in Snellville provided $35 million in indigent and charity care in FY 2019. Northside Hospital Gwinnett and Northside Hospital Duluth, demonstrated that they are providing community benefit and serving all patients regardless of their ability to pay (Georgia Department of Community Health, 2019).

Figure 25: Indigent and Charity Care by Hospital for all Hospitals in Gwinnett County, FY 2019



Source: The Georgia Department of Community Health, Hospital Financial Surveys, 2019

Figure 26: Indigent and Charity Care Cases Generated by Gwinnett Hospital System Patients, CY 2019



Source: Gwinnett Hospital System, Internal Data Systems, CY 2019

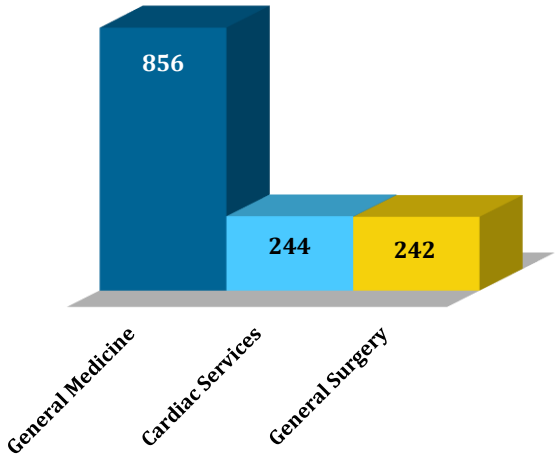
Broadly, services rendered can be grouped into ambulatory surgery, emergency room, inpatient services, outpatient services, and other outpatient services with 92% of indigent and charity cases falling under outpatient services and the emergency room.

Upon further analysis of the outpatient services utilized by the indigent and charity patients, 722 of the 22,834 cases had a mental health related primary diagnosis code and 43 of the 2,034 inpatient cases had a mental health related primary diagnosis code.

On the inpatient side, Northside's indigent and charity patients had high utilization of general medicine, cardiac services, general surgery, neurology, and orthopedics as shown in **Figure 27**. These five inpatient service lines represented 76% of the inpatient indigent and charity utilization.

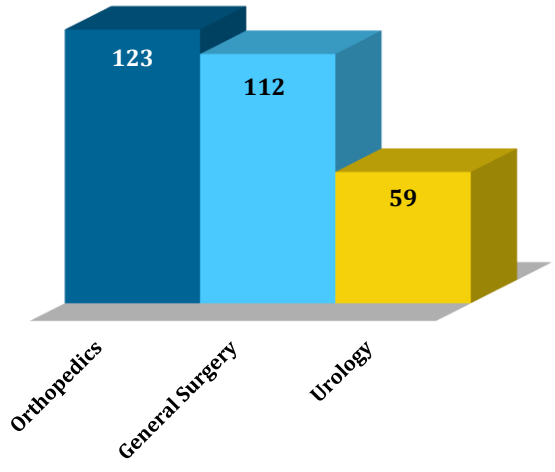
Similar to the demand for inpatient services, demand for outpatient surgical services was concentrated among five service lines as indicated in **Figure 28**. Together, these five service lines comprised 83% of Northside's need for indigent and charity ambulatory surgical services in CY 2019.

Figure 27: Northside's Gwinnett County Hospitals' Top Three Inpatient Services Utilized (# of cases) by Indigent and Charity Patients, CY 2019



Source: Northside Hospital, Internal Data Systems, CY 2019

Figure 28: Northside's Gwinnett County Hospitals' Top Three Ambulatory Surgery Services Utilized (# of cases) by Indigent and Charity Patients, CY 2019



Source: Northside Hospital, Internal Data Systems, CY 2019

Health Behaviors

Background and Overview

Poor health behaviors such as poor diet, lack of exercise and substance abuse can contribute to an individual's and a community's poor health status. The Community's population had higher rates of participation in most preventive health behaviors when compared to Georgia and the United States; however, within Gwinnett County, preventive health behaviors were less common in low-income households, among minority racial and ethnic groups, and among the uninsured. Gwinnett County had lower smoking rates, and higher physical activity rates than Georgia overall; however, it had a larger percent of adults who drink excessively than the state. Despite the Community outperforming Georgia for most preventive health behavior indicators, several health needs in the Community were revealed through this analysis. Most adults in Gwinnett County consumed less than 5 servings of fruits and vegetables every day and 25% of adults within the Community reported no physical activity as part of their leisure time routine.

Preventive Health Behaviors – Overview

Preventive screenings are an important part of routine care and maintaining good health. In addition, high rates of preventive screenings can be signs of health knowledge, provider outreach, and other indicators. The types of preventive health screenings necessary for each person varies based on age, gender, health status, and family and personal history. The goal of preventive health is to identify health problems early, while they are easier to treat and usually result in better outcomes (United Healthcare). For this CHNA, Northside utilized multiple resources to identify preventive health behavior patterns in the Community. The first set of data is from the NRC 2019 Survey, which did not limit the population looked at to the ages/genders appropriate for each behavior, but instead provides a broad look at household member's preventive health behaviors. This dataset allowed for comparison between respondent races, household income and insurance status.

WHY IS PREVENTIVE CARE IMPORTANT?

"Children need regular well-child and dental visits to track their development and find health problems early, when they're usually easier to treat. Services like screenings, dental check-ups, and vaccinations are key to keeping people of all ages healthy."

- Healthy People 2030

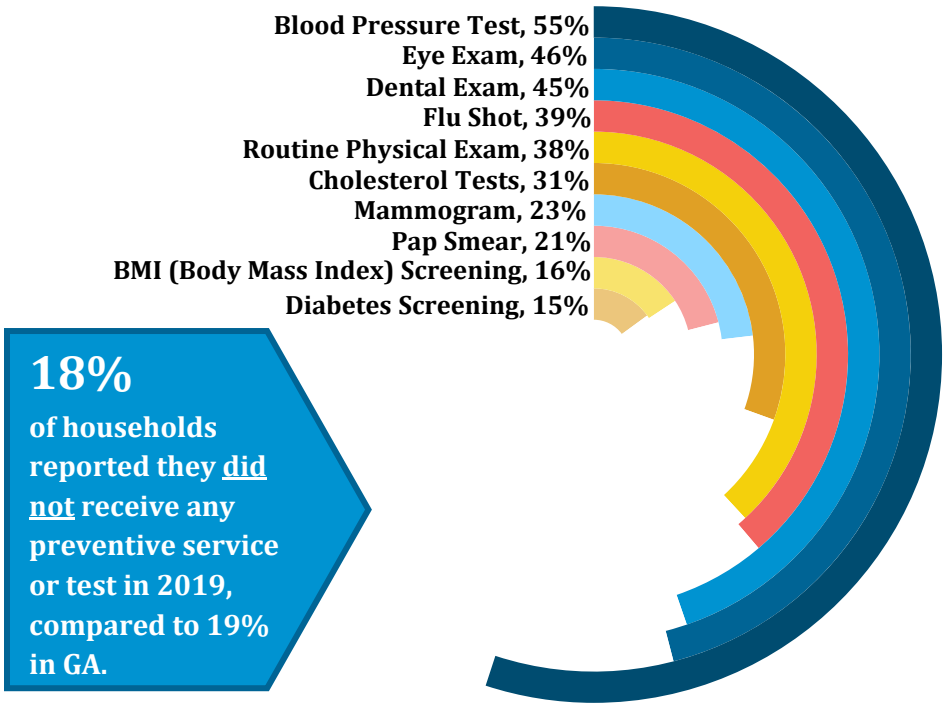
Preventive Health Behaviors – Overview of NRC Survey

The NRC provides a comprehensive list of preventive health behaviors ("PHBs") to respondents of its survey. Respondents are asked "Has any household member used or had any of the following healthcare services or tests in the last 12 months".

Table 3: National Research Corporation List of Preventive Health Behaviors Provided to NRC Survey Respondents		
Blood Pressure Test	BMI Screening	Cardiovascular Stress Test
Child Immunization	Cholesterol Test	Colon Screening
Dental Exam	Diabetes Screening	Eye Exam
Flu Shot	Hearing Test	Mammogram
Mental Health Screening	Osteoporosis Testing	Pap Smear
Prenatal Care	Prostate Screening	Routine Physical Exam
Stop Smoking Program	Weight Loss Programs	No Service or Test

Given that this survey question pertained to any member in the household and not just the NRC Survey respondent, the results provided a broad representation of the Community's PHBs. The top 10 PHBs (i.e. most frequently utilized) for all respondents in Gwinnett

Figure 29: Gwinnett County Top Ten Preventive Health Behaviors, % of Households Reporting Behavior, 2019



Source: The National Research Corporation, Market Insights, 2019

County are summarized in **Figure 29.** More than half of the households surveyed had a member that had received a blood pressure test, the top preventive health behavior.

Furthermore, household members in almost half of all households had received a dental exam and eye exam, and over a third of all households had received a routine physical exam, flu shot, and cholesterol test (National Research Corporation, 2019).

In addition to reviewing the top preventive health behaviors, the least common health behaviors were also important to explore as possible opportunities to improve access to care and the overall health status of the Community. Less than 10% of total households in the Community had members that took part in Cardiovascular Stress Tests, Hearing Tests, Prostate Screenings, Osteoporosis Testing, Mental Health Screenings, Weight Loss Programs, Pre-Natal Care, and Stop Smoking Programs (National Research Corporation, 2019).

Preventive Health Behaviors by Income

Preventive health behaviors of Gwinnett County's members varied based on their household income. Blood pressure tests, dental exams, eye exams, and flu shots were in the top 5 PHBs for all levels of income. Although the highest and lowest income households shared many of same top PHBs, there were large differences in participants as presented in **Table 4**. This chart illustrates some of the key preventive health behaviors that are not accessible to low-income Community members (National Research Corporation, 2019).

Table 4: Gwinnett County, Top 10 Preventive Health Behaviors, 2019 within Gwinnett County by Household Income

Top 10 Preventive Behaviors	Under $25,000	$25,000-$49,999	$50,000-$99,999	Over $100,000
Blood Pressure Test	48%	52%	58%	58%
Eye Exam	36%	35%	49%	52%
Dental Exam	26%	33%	49%	56%
Flu Shot	30%	30%	38%	51%
Routine Physical Exam	15%	26%	50%	41%
Cholesterol Tests	21%	23%	31%	39%
Mammogram	17%	10%	31%	26%
Pap Smear	19%	14%	22%	27%
BMI (Body Mass Index) Screening	5%	12%	17%	19%
Diabetes Screening	15%	12%	16%	17%

Preventive Health Behaviors by Race/Ethnicity

There were several differences in the top preventive health behaviors when results were stratified by race or ethnicity. This stratification for the top 10 PHBs in Gwinnett County are displayed in **Table 5** (National Research Corporation, 2019). White households generally participated in PHBs at higher rates than all minority groups.

Table 5: Gwinnett County, Top 10 Preventive Health Behaviors, 2019 within Gwinnett County by Race/Ethnicity

Top 10 Preventive Behaviors	% White Households	% Black Households	% Asian Households	% Hispanic Households
Blood Pressure Test	63%	52%	45%	32%
Eye Exam	52%	43%	53%	43%
Dental Exam	51%	43%	35%	33%
Flu Shot	46%	34%	22%	17%
Routine Physical Exam	44%	31%	56%	32%
Cholesterol Tests	40%	21%	12%	19%
Mammogram	29%	21%	17%	10%
Pap Smear	21%	25%	20%	20%
BMI (Body Mass Index) Screening	15%	18%	14%	19%
Diabetes Screening	17%	17%	12%	14%

In addition to analyzing the top PHBs by race, the least reported behaviors by race are presented in **Table 6**. Pre-natal care, osteoporosis testing, and stop smoking programs were in the bottom 5 for each racial/ethnic group analyzed. Lack of participation in weight loss programs stood out for White, Asian, and Hispanic households and lack of mental health screenings in Asian and Black households stood out among the top 5 least reported behaviors. In terms of cancer screening, all races and ethnicities had colon screening as one of the least reported PHBs (National Research Corporation, 2019).

Table 6: Gwinnett County Top 10 Least Reported Preventive Health Behaviors by Race/Ethnicity (% Households), 2019			
White Households	**Black Households**	**Asian Households**	**Hispanic Households**
Colon Screening (14%)	Colon Screening (13%)	Diabetes Screening (12%)	Mammogram (10%)
Cardiovascular Stress Test (13%)	Child Immunization (11%)	Cardiovascular Stress Test (11%)	Colon Screening (7%)
Child Immunization (13%)	Hearing Test (7%)	Colon Screening (6%)	Hearing Test (5%)
Prostate Screening (12%)	Weight Loss Program (7%)	Prostate Screening (4%)	Cardiovascular Stress Test (4%)
Hearing Test (11%)	Cardiovascular Stress Test (6%)	Osteoporosis Testing (2%)	Mental Health Screening (3%)
Osteoporosis Testing (8%)	Prostate Screening (6%)	Stop Smoking Program (2%)	Osteoporosis Testing (2%)
Mental Health Screening (5%)	Pre-Natal Care (3%)	Weight Loss Program (2%)	Pre-Natal Care (1%)
Pre-Natal Care (2%)	Mental Health Screening (1%)	Pre-Natal Care (1%)	Stop Smoking Program (1%)
Weight Loss Program (1%)	Osteoporosis Testing (0%)	Hearing Test (0%)	Weight Loss Program (1%)
Stop Smoking Program (1%)	Stop Smoking Program (0%)	Mental Health Screening (0%)	Prostate Screening (0%)

Preventive Health Behaviors – Uninsured

In households that do not have health insurance, the most common NRC survey response was that **no preventive health behaviors** had been taken by any members of the household. This response accounted for **37% of the uninsured households compared to only 18% of the total households** surveyed. Uninsured respondents participated to a lesser extent than the overall Community in all preventive health behaviors, except prenatal care and stop smoking programs. The least utilized services by the uninsured were very similar to the overall county's totals, with the addition of BMI (Body Mass Index) Screening (National Research Corporation, 2019).

WHY ARE STIs IMPORTANT?

"Although many sexually transmitted infections (STIs) are preventable, there are more than 20 million estimated new cases in the United States each year – and rates are increasing."

- Healthy People 2030

Sexually Transmitted Infections

The frequency and types of Sexually Transmitted Infection (STI) testing recommended by physicians varies based on many personal risk factors; however, the CDC encourages HIV testing be incorporated into routine medical care for adolescents and adults aged 15 to 65 (Mayo Clinic, n.d.). Screening is especially important in Gwinnett County because in 2018, the Atlanta metro-area, which includes Gwinnett County, was ranked number 4 of all major U.S. cities in HIV rate, yet in Gwinnett County, 57% of adults over the age of 18 had never been screened for HIV/AIDS (AIDSVu, 2018; McKenzie, AIDS in Atlanta, 2018). Screening rates were not available stratified by race or income; however, the HIV epidemic "disproportionately affects the black community in Atlanta" (McKenzie, AIDS in Atlanta, 2018).

Substance Use - Tobacco

WHY IS TOBACCO IMPORTANT?

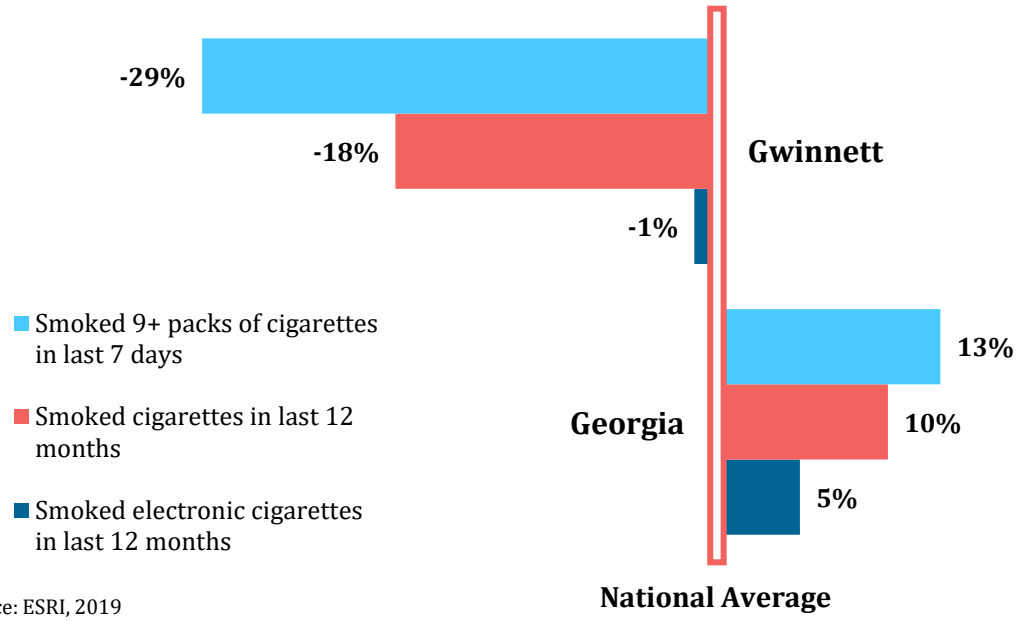
"Smoking harms nearly every organ in the body and increases the risk of heart disease, stroke, lung diseases, and many types of cancer."

- Healthy People 2030

Cigarette smoking is linked to many of the leading causes of death within Gwinnett County, including cancer and cardiovascular disease. Also, according to the National Institutes of Health, the most common irritant in the United States that causes chronic obstructive pulmonary disease is cigarette smoke. Within Gwinnett County, 14% of adults, age 18 or older, self-reported to actively smoking cigarettes some days or every day. This was better than the state-wide and U.S. averages of 17% (Centers for Disease Control and Prevention, 2017). This was further illustrated through a 2019 Market Potential Survey that compared Gwinnett County and Georgia to the national averages for population who smoked 9+ packs of cigarettes within the week prior to the survey, those who smoked cigarettes in the last 12 months, and those who smoked electronic cigarettes in the last 12 months. These results are displayed in **Figure 30.**

Figure 30: Smoking Habits of Gwinnett County and Georgia Compared to the National Average, 2019

(Figure illustrates the percent that the local use rate is above or below the national use rate)



Source: ESRI, 2019

Substance Use - Alcohol

Conversely to smoking, Gwinnett County slightly underperformed compared to the state for estimated adults who drink excessively (more than 2 drinks per day for males and one drink per day for females) (Centers for Disease Control and Prevention, 2017). Excessive drinking and alcohol dependence have been tied to several health effects, both short term and long term on your body, including a weakened immune system, damage to organs, and links to cancer (Nation Institute on Alcohol Abuse and Alcoholism, Published 2010, Revised 2015). Within Gwinnett County, 15% of adults indicated they drink excessively, compared to 14% state-wide (Centers for Disease Control and Prevention, 2017). Within Gwinnett County, there were approximately 3 liquor stores per 100,000 population; this rate is much lower than Georgia's rate of 10 (U.S. Census Bureau, 2017). Although Gwinnett's ratio of liquor stores to population was lower than the state, drinking rates and consumer spending were higher. Gwinnett County members on average spent $100 more a year on alcoholic beverages than Georgians (ESRI, 2019).

Nutrition

According to the Centers for Disease Control and Prevention, consuming fruits and vegetables can reduce a person's risk for several chronic diseases (heart disease, stroke, and some cancers), as well as help maintain a healthy body weight. Unhealthy eating habits can lead to significant health issues such as diabetes, obesity, and cardiovascular disease (Moore & Thompson, 2015). The USDA recommends a daily serving of fruits for adults of approximately 1.5-2 cups and 2-3 cups for vegetables. Additionally, it is recommended that population try to make half of their meal plate fruits and vegetables. To examine if Gwinnett County is meeting this recommendation, fruit and vegetable consumption data from BRFSS was utilized. In Gwinnett County, 75% of adults (age 18 or older) self-reported they consumed less than 5 servings of fruits/vegetables every day. This rate was slightly better than the state-wide rate of 76%. Even though the county ranked higher than the state average for fruit and vegetable consumption, Gwinnett County's rate of 75% translates to approximately 400,000 adult residents in Gwinnett County not receiving adequate nutrition every day (Centers for Disease Control and Prevention, 2005-2009).

WHY IS NUTRITION IMPORTANT?

"People who eat too many unhealthy foods – like foods high in saturated fat and added sugars – are at increased risk for obesity, heart disease, type 2 diabetes, and other health problems."

- Healthy People 2030

WHY IS PHYSICAL ACTIVITY IMPORTANT?

"Doing regular physical activity is one of the most important ways that people of all ages can improve their health. Physical activity can help delay, prevent, or manage many chronic diseases."

- Healthy People 2030

Physical Activity

Regular physical activity has been linked to a long list of positive health effects, including controlled weight, lowered risk of cardiovascular disease, reduced risk of type 2 diabetes and several cancers, strengthened bones and muscles, improved mental health, and improved mobility while aging (Centers for Disease Control and Prevention, 2015). Conversely, a sedentary lifestyle can lead to significant health problems such as obesity or cardiovascular disease. Despite all of the positive health outcomes associated with physical activity, 25% or approximately 160,000 Community members

self-reported that they did not participate in **ANY** physical activity or exercise (adults 20 and older). Gwinnett County's rate of physical inactivity was slightly lower than Georgia's rate of 26%. (Centers for Disease Control and Prevention, 2017). Furthermore, Gwinnett County members exercise and utilize exercise facilities more than Georgians overall (ESRI, 2019).

No Leisure-time Physical Activity (Adults 18+)
Healthy People 2030 Target
21.2%

Physical Environment

Background and Overview

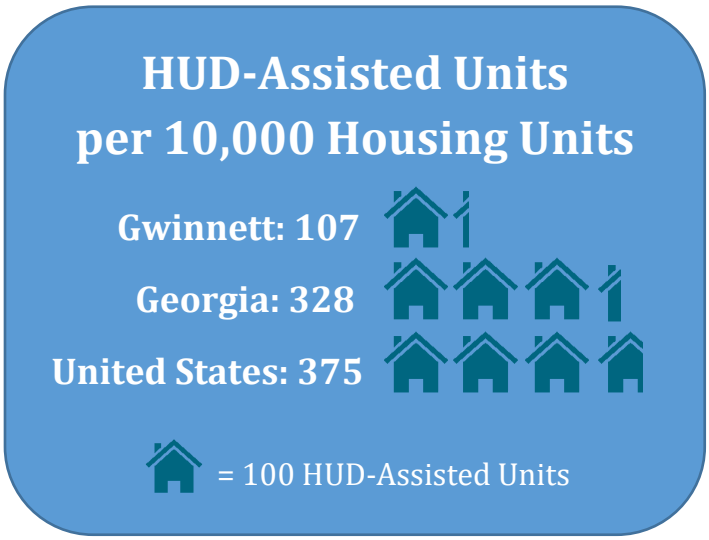
Conditions of the physical environment can shape the health of a community by influencing the choices community members make surrounding physical activity, nutrition, and safety. This section will focus on some key features of the physical environment that influence health, including housing, transportation, food access, and access to resources for recreational activity.

Within the county, high housing cost and a lack of transportation options were the two most severe physical environment problems facing the county compared to Georgia. Furthermore, the Community has fallen behind Georgia overall in terms of access to food.

Housing

Housing in America represents the number one expense for most Americans and a place where Americans spend approximately 60% of their time (Braveman, Dekker, Egerter, Sadegh-Nobari, & Pollack, 2011). Public health research has shown a connection between chronic diseases management and access to affordable housing. Affordable housing allows families enough money to cover other needs that are also associated with health, including medical expenses, food, and transportation. Furthermore, when individuals cannot afford housing for themselves or their families, they are often forced into living situations that are not appropriate for their family's needs. These conditions can lead to stress, high blood pressure, and other illnesses (Johns Hopkins Center to Eliminate Cardiovascular Health Disparities).

To explore the state of housing in Gwinnett County, a measure of severe housing problems provided by County Health rankings and Roadmaps was utilized. This measure indicated the percent of households that had at least one of the following 4 problems: housing as a severe cost burden (monthly housing costs exceeded 50% of household income, overcrowding (>1 persons per room), and lack of kitchen or plumbing facilities. Within the Community, an estimated 18% of households had severe housing problems, compared to 17% in Georgia. Severely high housing cost was the leading housing problem within the county, affecting 15% of all households, compared to 14% in Georgia overall. The other 3 severe housing problems affected between 1% and 3% of households in the county (U.S. Department of Housing and Urban Development, 2016).



The United States Department of Housing and Urban Development (HUD) exists to help secure affordable housing for all Americans. Based on the knowledge that approximately 15% of households in Gwinnett County spend over 50% of their household income on housing, one might expect the county to have a proportionally high rate of HUD-funded assisted housing units; however, in 2019, the county only had 107 HUD assisted units per 10,000 housing units. This was lower than Georgia's rate of 328 and lower than the U.S. rate of 375 per 10,000 housing units (U.S. Department of Housing and Urban Development, 2016). The high housing costs within the Community paired with an under supply of HUD housing puts low-income Community members at risk of living in substandard housing situations that can contribute to poor health outcomes.

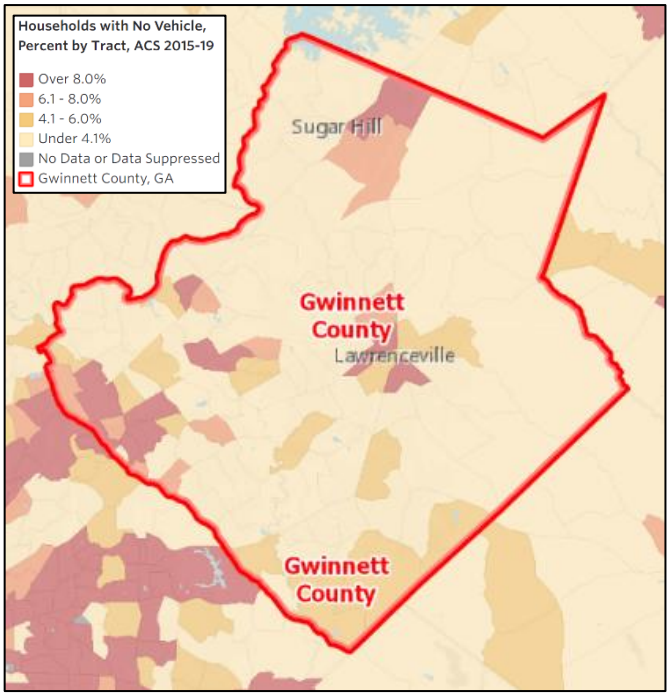
Homelessness is another facet of the housing issues facing the Community and Georgia. In 2019, there were an estimated 4,183 homeless persons in Georgia, up 13% from the previous year assessed (3,716). Of this total homeless population, approximately half were "sheltered" (residing in emergency shelter or transitional/supportive housing) and half were "unsheltered" (primary nighttime residence is a public or private place not designed or ordinarily used as a sleeping accommodation) (Georgia Department of Community Affairs, 2019).

Transportation

Access to healthcare and preventive care resources can be dictated by a person's ability to actually get to the physical location of service; therefore, a person's access to a motor vehicle or public transportation can play an important role in maintaining a healthy lifestyle.

Within the county, 3.4% of households were estimated to have no motor vehicle; Georgia's rate was 6.6%. There were pockets within the county where over 8% of households did not have a vehicle, illustrated in **Figure 31**. The county overall had a lower use rate of public transit compared to Georgia, with approximately 1.1% of the population commuting to work on public transit in the county compared to 2.1% in Georgia. The public transit users in the county represented 5% of all Georgians using public transit to commute to work (U.S. Census Bureau, 2014-2018).

Figure 31: Households with No Motor Vehicle



Source: U.S. Census Bureau, American Community Survey, 2015-2019

Key Food Access Definitions

Food Insecurity
Being without reliable access to a sufficient quantity of affordable and nutritious food

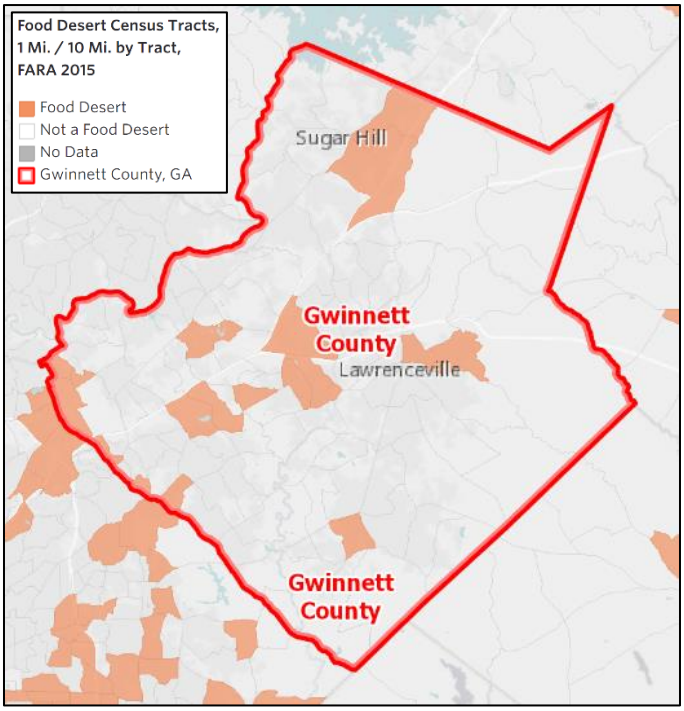
Food Deserts
Areas that are considered "low-income communities": (poverty rates and median family income) combined with areas that are considered "low-access communities" (large portions of the population live more than 1-mile (urban) or 10-miles (rural) from a supermarket or large grocery store)

Food Access

Increasingly, nutrition advice and dietary guidelines are being provided to patients by doctors, becoming part of prevention strategies in cancer, and are being viewed as a first line of defense against many chronic diseases. Public health research has illustrated that communities without supermarkets have higher rates of obesity, diabetes, and other diet-related health problems when

compared to communities with access. Food security occurs when all residents of a community are able to obtain food that can provide a nutritional diet that is both safe and culturally relevant to the individual. Food insecurity can be a result of several factors including poverty and food access based on the physical environment. Food deserts represent the geographic application of food insecurity. Within Gwinnett County, 30% of the low-income population was considered to *also* have low food access, compared to 28% of the population in Georgia. This amount translates to over approximately 85,000 residents in the county. There were several areas within Gwinnett County that the USDA considered food deserts in 2015. The food deserts in the county are illustrated in **Figure 32** (U.S. Department of Agriculture, 2017).

Figure 32: Food Deserts by Census Tract



Source: U.S. Department of Agriculture, 2015

Access to Recreational Facilities

When people have access to recreational/fitness facilities they are more encouraged to practice health behaviors related to physical activity. The county had an average of 13.8 recreation and fitness facilities per 100,000 population in 2017. This was higher than both the Georgia and national averages of 10.9 and 11.2, respectively (U.S. Census Bureau, 2017).

Health Outcomes

Background and Overview

To gain a better understanding of how the health factors analyzed (social & economic factors, health behaviors, healthcare access, and the physical environment) for this CHNA manifest within the Community, the health outcomes of the population were also analyzed. Mortality and morbidity measures of the Community are discussed in the subsequent sections to determine how healthy community members are and why Community members are dying.

High blood pressure, high cholesterol, arthritis, and being a smoker were the most common chronic conditions among Gwinnett County members. Gwinnett had a lower incidence of cancer than Georgia, with prostate (males), breast (females), lung and bronchus, colon and rectum, melanoma, and uterine corpus (females) cancers having the highest incidence within the Community. These findings align with a lot of the leading causes of death within the county, two of which are diseases of the heart and malignant neoplasms (cancer). Additional chronic conditions include depression/anxiety disorders and asthma which were more prevalent in the lowest-income households within the county and among the uninsured. Some differences in health outcomes were found between races, with depression/anxiety being more prevalent in White and Asian households compared to Black and Hispanic households, asthma being most common in Asian households, and high blood pressure being highest in White and Black households. Smoking was most common among White and Hispanic households. Additionally, non-Hispanic Black Males had the highest incidence rate of cancer in the county, of the populations analyzed, largely driven by a high incidence rate of prostate cancer. The Black population was also found to have higher rates of obesity and Black and Multiracial populations had higher hospital discharge rates for diabetes and major cardiovascular diseases than other racial groups. Furthermore, large disparities existed for infant mortality rates within the county, with the infant mortality rate among Black infants being significantly higher than White, Asian or Hispanic infants.

Health Outcomes: Morbidity

Morbidity provides a look at health outcomes related to sickness and illness. The Community's health behaviors, access to clinical care, social and economic factors, and physical environment should be considered when exploring the prevalence of many of the health conditions discussed in the following section.

Chronic Conditions

The NRC provided a comprehensive list of chronic conditions to respondents of its NRC Survey. Respondents were asked "Has any household member been diagnosed as having any of the following health problems?" Below is a table of the conditions presented to respondents.

Table 7: National Research Corporation
List of Chronic Conditions Provided to 2019 Survey Respondents

Arthritis	High Cholesterol
Asthma	Migraines
Cancer (Other Than Skin)	Obesity/Weight Problems
Chronic Headaches	Osteoporosis
Chronic Heartburn	Sciatica/Chronic Back Pain
Depression/Anxiety Disorder	Skin Cancer
Diabetes	Sleep Problem/Insomnia
Heart Disease	Smoker (Contributing Health Behavior)
High Blood Pressure	Stroke
No Chronic Conditions in HH	

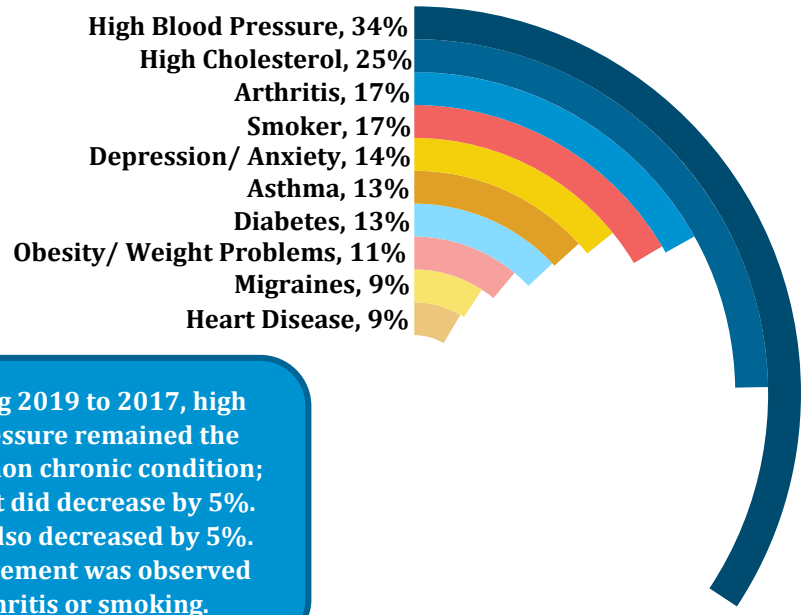
Given that this survey question pertained to any member in the household and not just the NRC Survey respondent, the results provide a broad representation of the Community's health status.

The top ten conditions in Gwinnett County (i.e. most frequently mentioned) are presented in **Figure 33**. Respondents in 35% of the households surveyed indicated no one in the household had a chronic condition. Approximately 34% of respondents reported a household member had high blood pressure (National Research Corporation, 2019). Smoker was a common response among the community overall. Tobacco use is the leading cause of preventable disease, disability, and death in the United States" (Centers for Disease

Approximately 1 in 3 Households reported that a Household Member was diagnosed with High Blood Pressure

Control and Prevention, 2016). A lot of the chronic conditions listed in Table 8 are preventable diseases and conditions that are associated with unhealthy behaviors. "Smoker" is included in table 8 as a contributing health behavior.

Figure 33: Gwinnett County's Top 10 Chronic Conditions, Percent of Households Reporting the Condition, 2019



Comparing 2019 to 2017, high blood pressure remained the most common chronic condition; however, it did decrease by 5%. Diabetes also decreased by 5%. No improvement was observed for arthritis or smoking.

Source: The National Research Corporation, Market Insights, 2019

Chronic Conditions by Household Income

Northside analyzed the top chronic conditions by household income to determine if there were any differences between households based on income levels. **Table 8** compares the top 5 chronic conditions in the county to those of the lowest (<$25,000) and highest (>$100,000) income brackets.

Table 8: Gwinnett County
Top 5 Reponses for Chronic Conditions by Income (% of Households), 2019

All Households, All Income Levels	Households with HHI <$25,000	Households with HHI >$100,000
No Chronic Condition (35%)	High Blood Pressure (40%)	No Chronic Condition (33%)
High Blood Pressure (34%)	High Cholesterol (32%)	High Blood Pressure (30%)
High Cholesterol (25%)	No Chronic Conditions (31%)	High Cholesterol (26%)
Arthritis (17%)	Arthritis (29%)	Arthritis (13%)
Smoker (17%)	Asthma (23%)	Depression/Anxiety Disorder (13%)

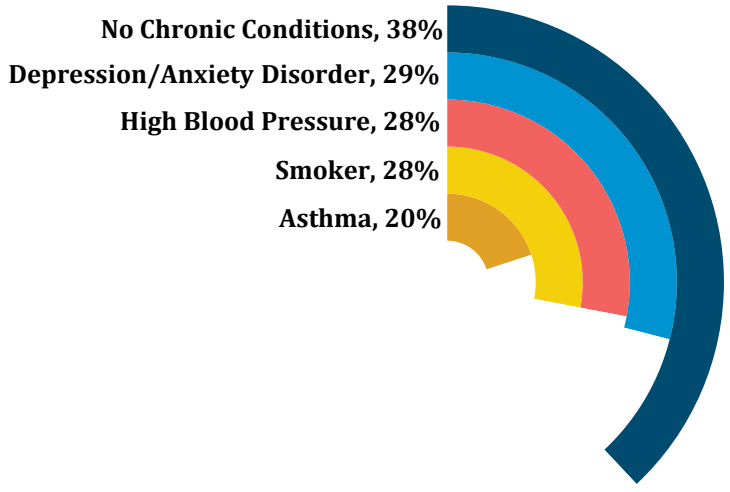
While 4 out of the Top 5 chronic conditions were consistent for the county overall and both income groups, there were subtle differences in the ranking or hierarchy of the chronic conditions. Of note, "No Chronic Condition" was the most common response in the county overall and in high-income households, whereas high blood pressure was the most common response for low-income households. Overall, the low-income group reported chronic conditions at a higher rate than the high-income group. This could illustrate a lack of preventive health behaviors and low access to preventive care among members of low-income households. Depression/anxiety was among the top 5 health conditions in the high-income household group and was not in the top 5 for low-income households (National Research Corporation, 2019).

Smoking was a common response across both income groups, but the prevalence differed between low and high-income households. Smoking was listed as a chronic condition in 20% of low-income households compared to 12% in high-income households (National Research Corporation, 2019).

Chronic Conditions among the Uninsured

The top 5 chronic conditions among the uninsured population are different than the low and high-income groups. High blood pressure, high cholesterol, and arthritis were all reported at lower rates by the uninsured group than by the insured group and smoking, depression/anxiety, and asthma were all reported at higher rates.

Figure 34: Top 5 Chronic Conditions among Uninsured Households in Gwinnett County, Percent of Households Reporting Condition, 2019



Source: National Research Corporation, Market Insights, 2019

Chronic Conditions by Race/Ethnicity

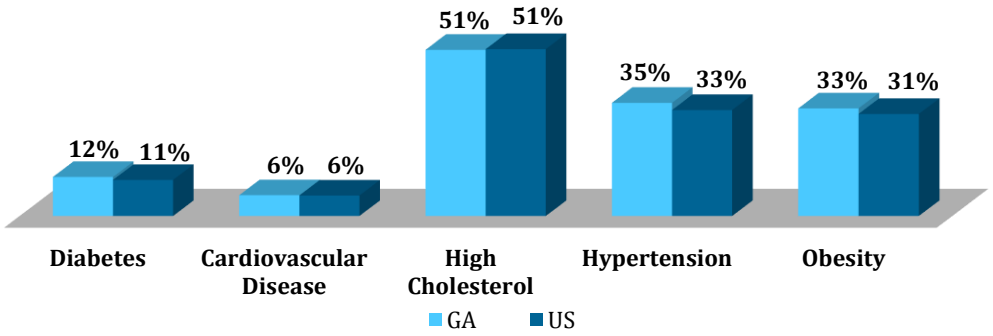
There were several differences in the top chronic conditions when the results were stratified by race or ethnicity. This stratification for the top 10 chronic conditions in the Community is displayed in **Table 9** (National Research Corporation, 2019). Minority groups indicated "No Chronic Conditions" present in the household most often; however, it is difficult to determine if this was the result of another factor (e.g. lack of screening and primary care to diagnose chronic conditions) or if minority populations truly have less chronic conditions. The White and Black populations have the highest prevalence of high blood pressure, with 41% of White households and 43% of Black households indicating a household member suffers from high blood pressure, compared to only 7% of Asian households and 10% of Hispanic Households. The Hispanic population has the most households with a reported smoker, with 23% of households having a smoker in households compared to 20% of White Households, 13% of Black Households, and 11% of Asian households (National Research Corporation, 2019). It is important to remember, smoking often affects the health of all household members as a result of secondhand smoke.

Table 9: Top 10 Chronic Conditions in Gwinnett County by Race/Ethnicity

	% White Households	% Black Households	% Asian Households	% Hispanic Households
No Chronic Conditions	27%	33%	32%	41%
High Blood Pressure	41%	43%	7%	10%
High Cholesterol	30%	25%	14%	13%
Arthritis	24%	16%	0%	6%
Smoker	20%	13%	11%	23%
Depression/Anxiety	22%	6%	18%	10%
Asthma	12%	12%	31%	21%
Diabetes	17%	14%	3%	4%
Obesity/Weight Problems	12%	15%	13%	3%
Migraines	12%	5%	14%	12%

Chronic Disease/Health Status

Figure 35: Comparison of Chronic Disease and Health Status Indicators between Georgia and the United States, Percent of Adults Diagnosed by a Doctor



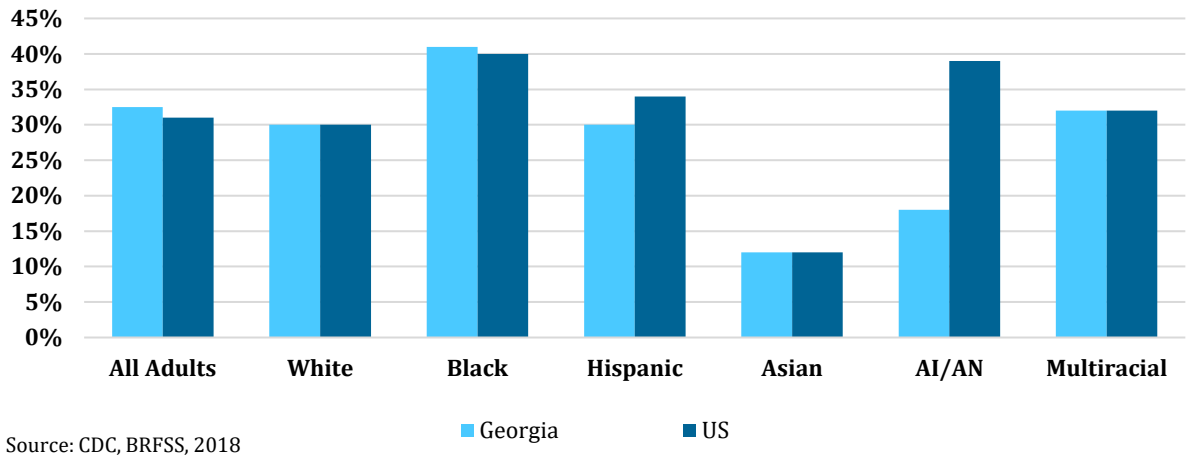
Source: Kaiser Family Foundation analysis of the CDC BRFSS 2013-2019
Note: High cholesterol data includes adults who had cholesterol checked in the last 5 years and were told it was high. All other data represents adults who reported ever being told by a doctor or health professional that they have the disease.

Obesity

Table 10: Percent of Adults Who Were Obese, 2017	
Gwinnett	31.8%
Georgia	32.1%
United States	29.5%
Source: CDC, BRFSS, 2017	

Within Gwinnett County, 30% of adults (aged 18 or older) self-reported that they were obese (BMI over 30). This rate was lower than Georgia's rate of 32% (Centers for Disease Control and Prevention, 2016). Data on obese adults was not available stratified by race or ethnicity at the county-level; however, it was available at the state-level. In 2018, in Georgia, 33% of adults were considered obese, having a BMI of 30 or higher. The Hispanic (30%), Multiracial (32%), and White (30%) populations had percentages close to the overall percentage. The Asian (12%) and American Indian/Alaska Native (18%) populations had percentages much lower than the overall average while the Black population's percentage of 41% was higher than the overall population's average (Centers for Disease Control and Prevention, 2018).

Figure 36: Percent of Adults who were Obese in CY 2018 by Race/Ethnicity in Georgia and the United States

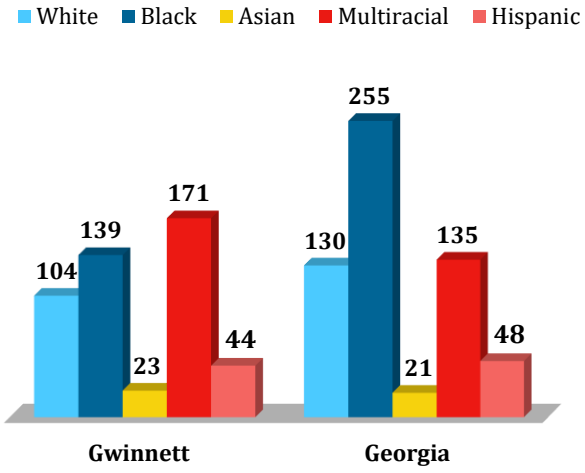


Source: CDC, BRFSS, 2018

Diabetes

Nearly 69,000 adults in Gwinnett County were diagnosed with diabetes in 2016. The rate of diabetes within the county's population increased from 9% in 2006 to 11% in 2016. The county has consistently (2006 – 2016) maintained a lower rate of diabetes than the state overall but both the county and the state have generally maintained higher rates than the U.S. (Centers for Disease Control and Prevention, 2016). Although the rate of diabetes was not available stratified by race/ethnicity at the county-level, hospital discharge rates for diabetes (based on principal diagnosis) was available. The diabetes discharge rates for the White, Black, and Multiracial populations were significantly higher than Hispanic and Asian populations in both Gwinnett County and Georgia. These rates are displayed in **Figure 37** (Georgia Department of Public Health, 2015-2019).

Figure 37: Diabetes Hospital Discharge Rate (per 100,000 population) by Race for Gwinnett County and Georgia, 2015-2019



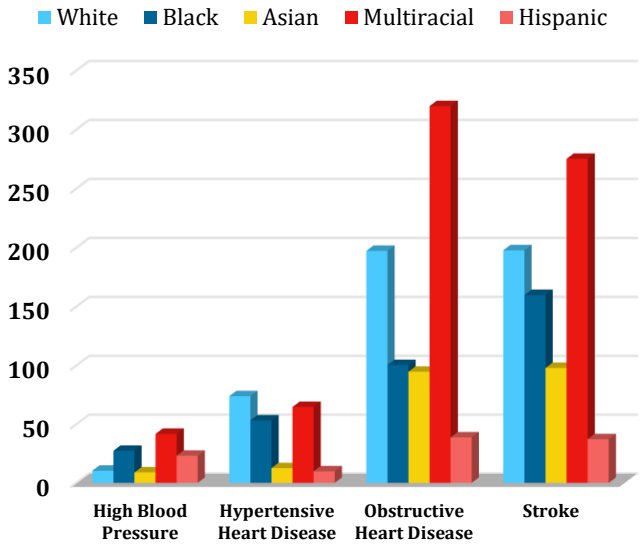
Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Major Cardiovascular Diseases

According to the American Heart Association, controlling high blood pressure, cholesterol and blood glucose are essential to managing the risk of heart disease. Discharge rates varied by race and are shown in **Figure 38.** The Multiracial population had drastically higher discharge rates for obstructive heart disease and stroke, followed by the White population (Georgia Department of Public Health, 2015-2019).

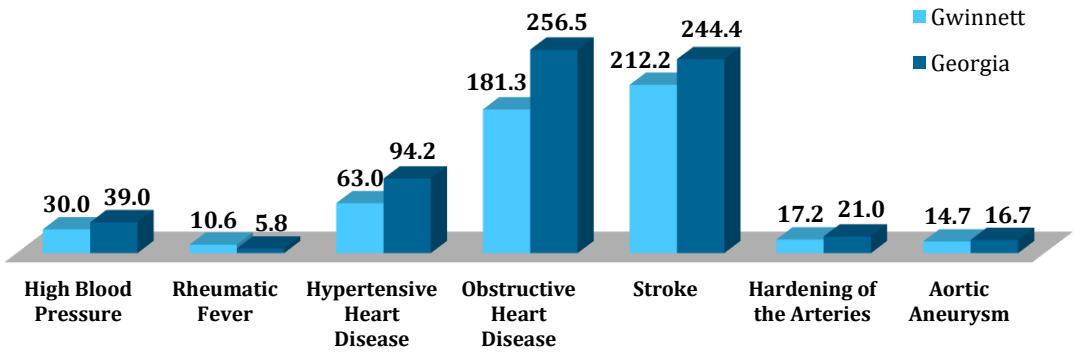
Figure 39 shows age-adjusted hospital discharge rates for Gwinnett County and Georgia. Gwinnett County residents had lower rates than Georgia for each cardiovascular disease type besides rheumatic fever. Obstructive heart disease and stroke had the highest discharge rates followed by hypertensive heart disease (Georgia Department of Public Health, 2015-2019).

Figure 38: Major Cardiovascular Diseases Hospital Discharge Rate (per 100,000 population) by Race for Gwinnett County, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Figure 39: Age-Adjusted Hospital Discharge Rate (per 100,000 population) for Major Cardiovascular Diseases by Type for Gwinnett County and Georgia, 2015-2019



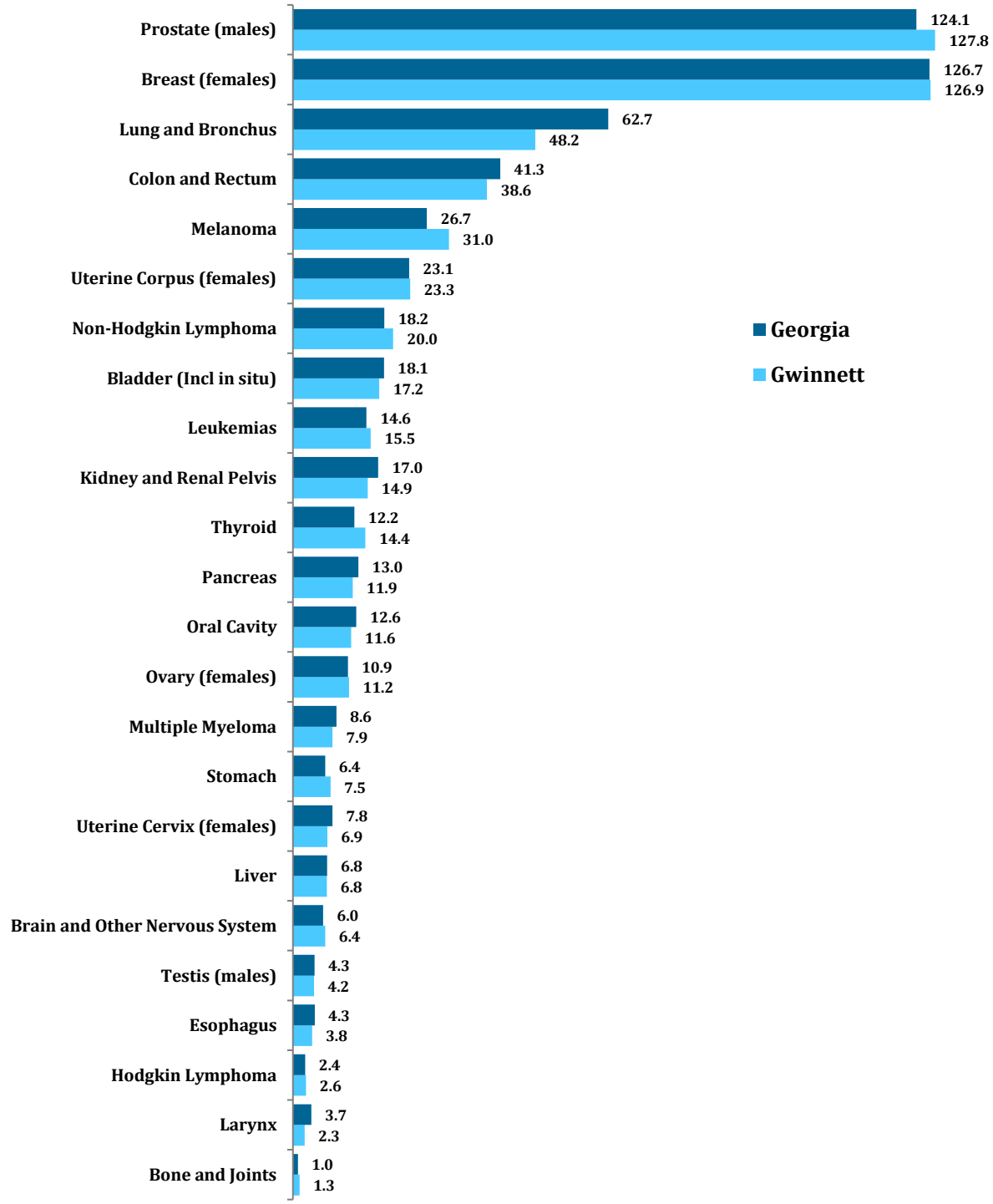
Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Cancer

The Georgia Comprehensive Cancer Registry ("GCCR") collects information on all cancer cases diagnosed among Georgia residents. Northside utilized GCCR's age-adjusted incidence rates for 2013-2017 to compare Gwinnett County to Georgia. Between 2013 and 2017, Gwinnett County's incidence of cancer was slightly lower than Georgia overall, with approximately 453 new cases of cancer per 100,000 population in Gwinnett and 467 new cases of cancer per 100,000 population in Georgia. Breast (females), prostate (males), lung and bronchus, colon and rectum, and melanoma were the tumor sites with the highest incidence rates in both Gwinnett County and Georgia. All tumor site incident rates are displayed in **Figure 40** (Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017).

Gwinnett County's incidence rates of stomach, melanoma, thyroid, and non-Hodgkin Lymphoma cancers were significantly higher than Georgia's ($p<0.05$), while the rates of colon and rectum, larynx, lung and bronchus, and kidney and renal pelvis cancers were significantly lower ($p<0.05$) (Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017).

Figure 40: Age-Adjusted Cancer Incidence Rates for Gwinnett County Compared to Georgia, 2013-2017



Source: The Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017

GCCR also provided cancer incidence stratified by gender and for the two largest racial groups in the Community, non-Hispanic Whites and non-Hispanic Blacks. Northside analyzed differences in these incidence rates for the top 6 tumor sites in Gwinnett County in **Table 11** (Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017). Based on overall cancer incidence rates, non-Hispanic Black males have just slightly higher overall rates than non-Hispanic White males; this in large part is a result of the high incidence of prostate cancer among non-Hispanic Black males. However, non-Hispanic White males have higher incidence in lung and bronchus, colon and rectum, and melanoma. Among females, the non-Hispanic White population had a higher rate of cancer compared to Non-Hispanic Black females, with the exception of cancer of the colon and rectum and breast (Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017).

Table 11: Age-Adjusted Cancer Incidence Rates (per 100,000 population) for Gwinnett County by Race/Ethnicity, 2013-2017

	Total	Males	Non-Hispanic Black Males	Non-Hispanic White Males	Females	Non-Hispanic Black Females	Non-Hispanic White Females
All Sites	452.6	504.1	554.8	551.3	418.8	402.1	466.5
Prostate (males)	--	127.8	231.9	116.0	--	--	--
Breast (females)	--	--	--	--	126.9	137.1	136.1
Lung and Bronchus	48.2	55.7	48.9	64.7	43.0	34.0	50.6
Colon and Rectum	38.6	44.4	34.0	47.2	34.0	41.6	33.4
Melanoma	31.0	41.5	--	67.3	23.9	--	45.2
Uterine Corpus	--	--	--	--	23.3	24.6	26.2

Source: The Georgia Department of Public Health, Georgia Comprehensive Cancer Registry, 2013-2017

Maternal and Infant Health

Pre-term Births
Healthy People 2030 Target
9.4%

Premature birth and low birth weight are closely related measures to infant mortality, contributing not only to infant mortality, but also long-term health problems in infants who survive. Georgia received a "D" on the 2018 March of Dimes Report Card on Premature Births, a grade the state has maintained since 2015 (Miller, 2018). In 2019, Gwinnett County had the same percentage of premature births as Georgia overall (11.0%), while performing slightly better than Georgia overall in percentage of babies born with a low birth weight (Georgia: 10%, Gwinnett: 9%). Similarly to IMR, there were racial disparities for premature births and low birth weight babies within the county with 13% of Black infants born premature, compared to 9% of White, 8%

of Asian, and 10% of Hispanic infants. Likewise, 13% of Black infants were born at a low birth weight, compared to 9% of Asian infants, 7% of White infants and 7% of Hispanic infants (Georgia Department of Public Health, 2019).

Sexually Transmitted Infections

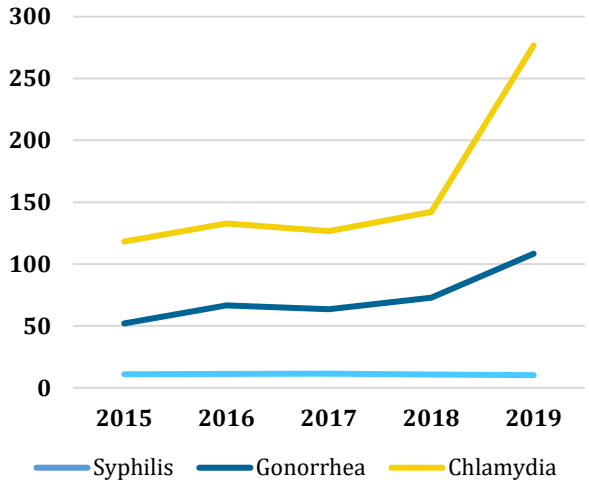
In the United States, there are an estimated average of 20 million new sexually transmitted infections (STIs) each year (Healthy People 2030, 2021). These infections have been trending upwards nationally, increasing sharply over the last 4 years. Many of these cases end up going undiagnosed and untreated, opening up the hosts of these infections to future health issues such as infertility, ectopic pregnancy, stillbirth in infants, and increased HIV risk. The rise in gonorrhea cases in particular has been troubling, as antibiotic resistant gonorrhea has become more and more of a risk as each year of rising cases passes. The only remaining antibiotic to which the bacteria has not yet developed a resistance is ceftriaxone, and the continuing of the trend of rising case numbers may eventually render this antibiotic ineffective as well (Centers for Disease Control and Prevention, 2018).

WHY ARE STIS IMPORTANT?

"Although many sexually transmitted infections (STIs) are preventable, there are more than 20 million estimated new cases in the United States each year — and rates are increasing. In addition, more than 1.2 million people in the United States are living with HIV (human immunodeficiency virus)."

- Healthy People 2030

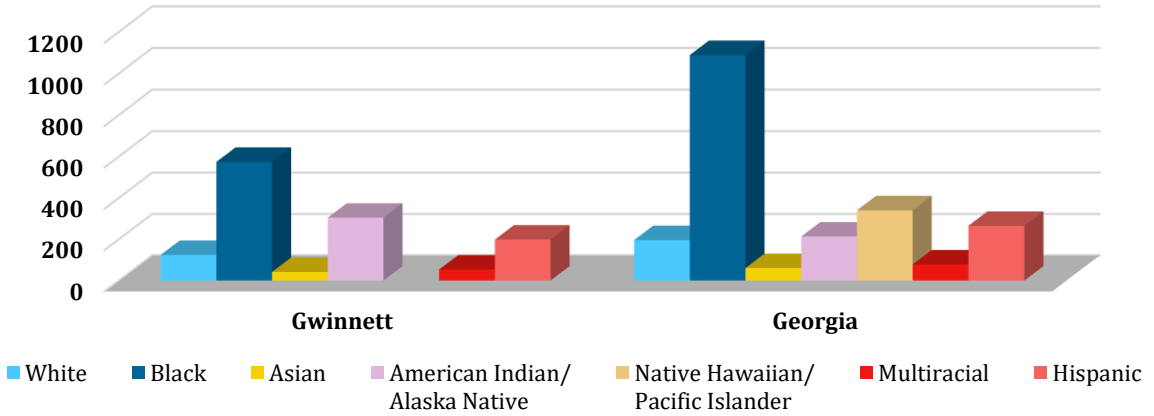
Figure 41: Age-Adjusted STI Rate (per 100,000 population) in Gwinnett County, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

As seen in **Figure 41**, Gwinnett County experienced a rise in Chlamydia and Gonorrhea rates over the last 5 years while Syphilis remained relatively flat. **Figure 42** shows the racial disparities between STI cases. The Black population has the overwhelming majority of the burden of STI cases in both Georgia and Gwinnett, coming in at 1063.8 cases per 100,000 in the state and 547.3 per 100,000 in the county. The Hispanic and Native Hawaiian/Pacific Islander populations are also areas of concern, with state rates of 264.8 and 240.9 cases per 100,000 respectively and county rates of 198.2 and 196.0 cases per 100,000 respectively (Georgia Department of Public Health, 2015-2019).

Figure 42: Age-Adjusted STI Rate (per 100,000 population) by Race/Ethnicity in Gwinnett County and Georgia, 2015-2019

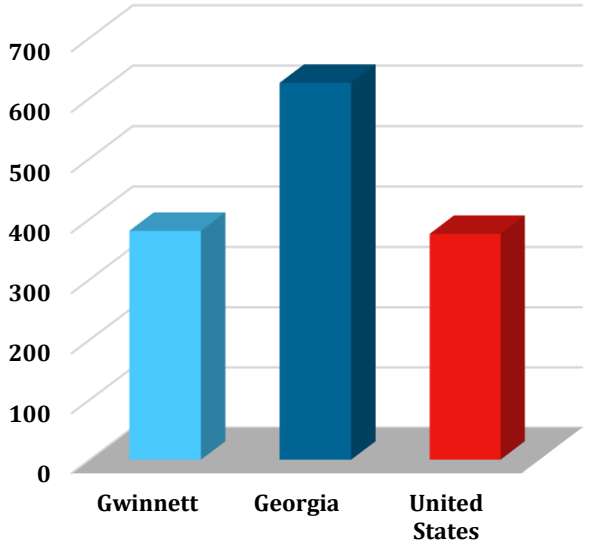


Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

HIV/AIDS

HIV/AIDS is grouped in the STI/STD category in this document, and is primarily transmitted through sexual contact. Sexual contact accounts for 95% of male transmissions and 86% of female transmissions in people living with HIV in Gwinnett County. It is important to note, however, that it may be transmitted in other ways such as hemophilia, injection drug use, perinatal exposure, or blood transfusions. In 2016, there were 2,573 population living with an HIV infection in Gwinnett County. By 2018, that number had increased by 11.3% to 2,863 population living with an HIV infection in Gwinnett (AIDSVu, 2018).

Figure 43: Rate of People Living with HIV (per 100,000 population), 2018



Source: AIDSVu, 2018

In 2018, the Atlanta metro-area, which includes Gwinnett County, was ranked number 4 of all major U.S. cities in HIV rate (McKenzie, AIDS in Atlanta, 2018). This is a rise in ranking from 2015 when the Atlanta metro-area was ranked number 5 in HIV rate. (AIDSVu, 2018).

HOW CAN WE LOWER ER VISIT RATES?

"Strategies to prevent specific types of nonfatal unintentional injuries — like falls, traumatic brain injuries, and motor vehicle crashes — can reduce emergency department visits."

-Healthy People 2030

Unintentional Injuries

In 2019, falls were the leading cause of ER visits in Gwinnett County for unintentional injuries, with 10,905 cases in the year or 51% of the top seven causes. Motor vehicle crashes came in just behind falls, with 9,361 cases or 44% of the top seven causes. Those two types of unintentional injuries made up the overwhelming majority of ER visits due to unintentional injuries, with the rest of the top seven unintentional injury causes only accounting for 910 cases or 4% combined.

Overall, the rates of ER visits in Gwinnett County are well below the state of Georgia.

Table 12: Top Causes of Unintentional Injury in Gwinnett County by ER Visits, 2019		
Rank	**Description**	**Cases**
1	FALLS	10,905
2	MOTOR VEHICLE CRASHES	9,361
3	ACCIDENTAL POISONING AND EXPOSURE TO NOXIOUS SUBSTANCES	758
4	ACCIDENTAL EXPOSURE TO SMOKE, FIRE, AND FLAMES	79
5	ACCIDENTAL DISCHARGE OF FIREARMS	55
6	ACCIDENTAL DROWNING AND SUBMERSION	10
7	SUFFOCATION	8
Total Top 7 Diagnoses		**21,176**

Note: Table includes deduplicated ER visit rates
Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2019

Health Outcomes: Mortality

Mortality measures were also evaluated for this CHNA to understand the cause-specific death rates within Gwinnett County. When available, the data was stratified by age, sex and race/ethnicity.

Leading Cause of Death

In 2019, according to the Georgia Department of Public Health, there were 85,641 deaths in Georgia. Gwinnett County accounted for approximately 5% of Georgia's deaths (4,461).

Between 2015 and 2019, Georgia and Gwinnett County differed slightly in their leading causes of death, as indicated in **Table 13**. Compared to Georgia, Gwinnett County had a higher percentage of deaths by cancers, while having a lower percentage of deaths due to diseases of the heart, chronic lower respiratory diseases, and septicemia.

Table 13: Leading Causes of Death within Gwinnett County Compared to Georgia, 2015-2019

Georgia		Gwinnett County	
Diseases of the Heart	22%	Malignant Neoplasms	23%
Malignant Neoplasms	21%	Diseases of the Heart	19%
Chronic Lower Respiratory Diseases	6%	Unintentional Injuries	6%
Unintentional Injuries	5%	Alzheimer's Disease	5%
Cerebrovascular Diseases	5%	Cerebrovascular Disease	5%
Alzheimer's Disease	5%	Chronic Lower Respiratory Diseases	5%
Diabetes Mellitus	3%	Diabetes Mellitus	3%
Nephritis, Nephrotic Syndrome, and Nephrosis	2%	Intentional Self-Harm (Suicide)	2%
Septicemia	2%	Nephritis, Nephrotic Syndrome, and Nephrosis	2%
Intentional Self-Harm (Suicide)	2%	Septicemia	1%

Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Within the Northside Community, the top causes of death varied based on race and ethnicity, as shown in **Table 14** The White population suffered from more diseases of the heart, Alzheimer's disease, and chronic lower respiratory disease deaths than Gwinnett County overall. Malignant neoplasms, cerebrovascular disease, diabetes mellitus, intentional self-harm (suicide), and nephritis/nephrotic syndrome/nephrosis comprised a larger percentage of deaths among the Black population than the county as a whole. The Asian population suffered from a larger percentage of malignant neoplasms, cerebrovascular disease, diabetes mellitus, intentional self-harm (suicide), and nephritis/nephrotic syndrome/nephrosis when compared to the county as a whole. The Hispanic population had a higher percentage of deaths due to malignant neoplasms than the county as a whole and unintentional injuries constituted a much higher portion of deaths than in the county as a whole. One commonality for all three minority groups analyzed (Hispanic, Black, and Asian) was that the percentage of deaths related to malignant neoplasms and diabetes mellitus was higher among minority groups than Gwinnett County's totals (Georgia Department of Public Health, 2015-2019).

Table 14: Leading Causes of Death in Gwinnett County by Race/Ethnicity, 2015-2019

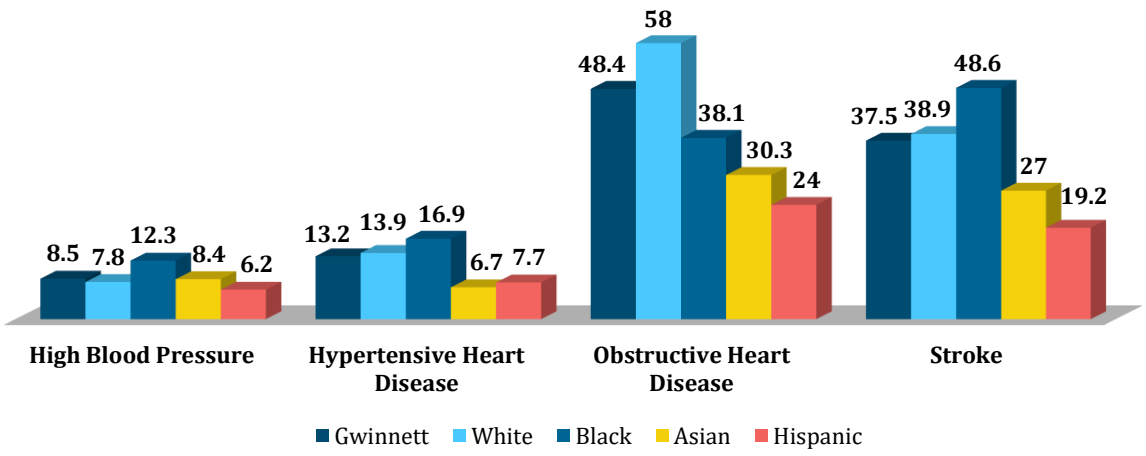
	White	Black	Asian	Hispanic
Malignant Neoplasms	22%	24%	27%	25%
Diseases of the Heart	20%	16%	17%	14%
Unintentional Injuries	5%	6%	5%	12%
Alzheimer's Disease	6%	4%	4%	2%
Cerebrovascular Disease	5%	6%	6%	4%
Chronic Lower Respiratory Disease	6%	3%	3%	1%
Diabetes Mellitus	3%	4%	5%	4%
Intentional Self-Harm (Suicide)	2%	2%	4%	3%
Nephritis, Nephrotic Syndrome, & Nephrosis	2%	3%	3%	2%
Septicemia	1%	2%	2%	1%

Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Major Cardiovascular Diseases and Diseases of the Heart

Major cardiovscular diseases includes diseases related to the major parts of the circulatory system. Diseases of the Heart is a subsection of major cardiovascular diseases, including rheumatic fever, hypertensive heart disease, and ischemic heart disease, among others. Diseases of the Heart was the second most common cause of death for Gwinnett County residents and the most common cause of death for Georgians. **Figure 44** illustrates the 4 most common types of major cardiovascular disease deaths within Gwinnett County by race and ethnicity for the county. The White population experiencecd the highest death rate for obstructive heart disease and the Black population experienced the highest death rates for stroke, hypertensive heart disease, and high blood pressure. The Asian population had the lowest rates for hypertensive heart disease and the Hispanic population had the lowest rates for high blood pressure, obstructive heart disease, and stroke (Georgia Department of Public Health, 2015-2019).

Figure 44: Age-Adjusted Death Rate (per 100,000 population) for Major Cardiovascular Diseases by Type for Gwinnett County, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Cancer

Cancer was the leading cause of death within Gwinnett County and the leading cause of death across all racial/ethnic groups. As **Table 15** illustrates, there is some difference in the type of cancers causing the most cancer deaths by race and ethnicity. Lung cancer causes the most deaths across all races/ethnicities in the county besides the Asian population. Lung cancer caused a significantly higher percentage of total cancer deaths in the White population compared to all other minority groups in the county. The Black population had a higher percentage of breast, pancreatic, and prostate cancer deaths compared to the other races/ethnicities; the Asian population had a higher percentage of colon and breast cancer deaths; and the Hispanic population has a higher percentage of stomach and brain cancer deaths.

WHY IS CANCER IMPORTANT?

"Death rates are higher for some cancers and in some racial/ethnic minority groups. These disparities are often linked to social determinants of health, including education, economic status, and access to health care."

-Healthy People 2030

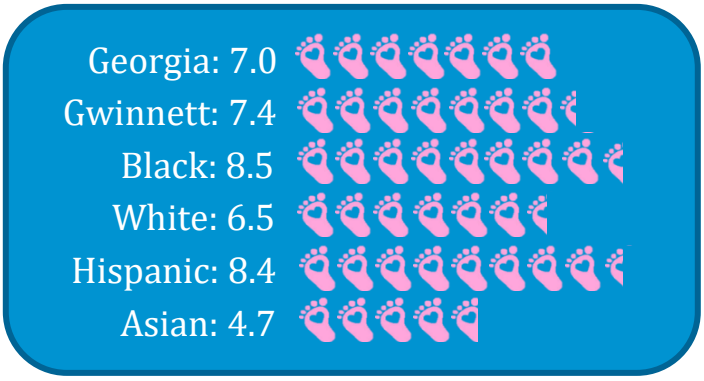
Table 15: Percent of Cancer Deaths Caused by Top 5 Cancers by Race/Ethnicity within Gwinnett County, 2019

Gwinnett County	White	Black	Asian	Hispanic
Lung (19%)	Lung (24%)	Lung (14%)	Breast (13%)	Lung (10%)
Pancreatic (8%)	Colon (8%)	Breast (12%)	Colon (11%)	Stomach (8%)
Colon (8%)	Pancreatic (8%)	Pancreatic (12%)	Lung (10%)	Brain (8%)
Breast (8%)	Breast (6%)	Colon (9%)	Pancreatic (9%)	Prostate (7%)
Prostate (5%)	Prostate (5%)	Prostate (9%)	Stomach (4%)	Breast (7%)

Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2019

Maternal and Infant Health

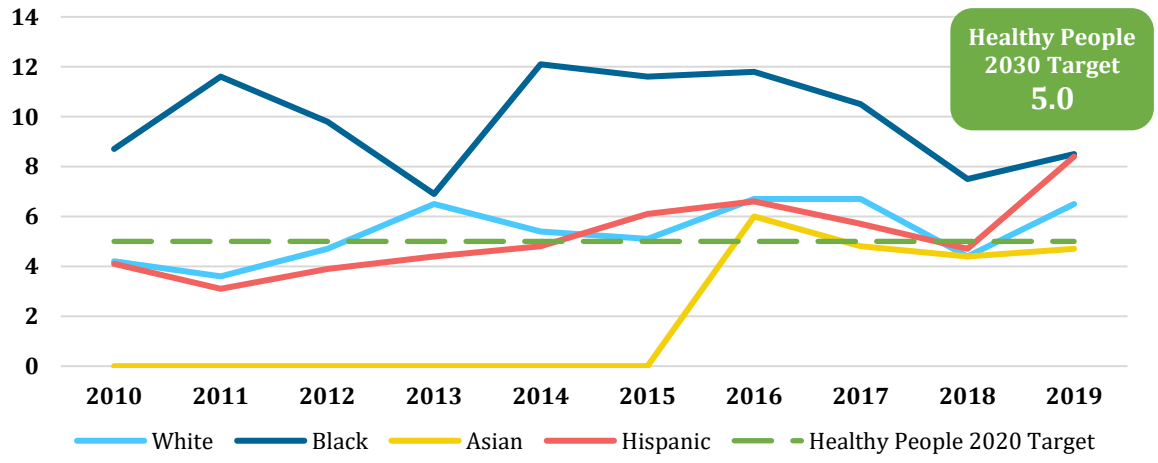
Gwinnett County Infant Mortality Rates, 2019
(Infant Deaths per 1,000 Live Births)



An important measure of the Community's health status is the health status of the Community's mothers and babies, a population of particular concern to Northside. Infant mortality rates count the number of infant deaths per 1,000 live births before the age of 1. According to America's Health Rankings, Georgia has one of the highest rates of infant mortality in the U.S., ranking 43rd out of the 50 states in 2019 (America's Health Rankings, United Health Foundation, 2019). The main causes of infant mortality are that babies are born prematurely, that they do not weigh enough at birth, or both. In 2019, Gwinnett County's Infant Mortality Rate was 7.4, compared to Georgia's of 7.0. Georgia has made steady progress, with a decline in its infant mortality rate from 10.1 in 1994. Unlike Georgia's decreasing trend, Gwinnett County's rate has slightly increased since 1994 (Georgia Department of Public Health, 1994-2019).

Within Georgia and Gwinnett County there were significant racial differences in infant mortality rates. In 2019, in Georgia, Black infants had more than double the infant mortality rate of White infants with an IMR of 10.7 compared to 5.2. In Gwinnett County, the Black population had an IMR of 8.5 and the Hispanic population had an IMR of 8.4,

Figure 45: Infant Mortality Rates within Gwinnett County by Race and Ethnicity, 2010-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2010-2019

compared to the White IMR of 6.5 and the Asian IMR of 4.7. Northside analyzed IMRs over a 10-year period, 2010 – 2019, and although rates did not show a clear growth/decline, the disparity between the Black population and other racial/ethnic groups was consistent across the 10-year time period with the gap decreasing as a result of the declining IMR within the Black population (Georgia Department of Public Health, 2010-2019), as illustrated in **Figure 45**.

Suicide

Suicide Death Rate
Healthy People 2030 Target
12.8

According to the CDC, there is one suicide death for every estimated 33 suicide attempts (Centers for Disease Control and Prevention, 2016). In 2019, there were a total of 1,581 suicides in Georgia, 113 (7%) of which were in the county. Gwinnett County had an age-adjusted suicide rate of 12.2 per 100,000 population in the county (Georgia Department of Public Health, 2019). Based on Gwinnett's total number of suicides there may be an estimated 3,700 county residents annually becoming suicide survivors. This illustrates how suicide mortality rates represent a small portion of the population that is actually battling depression and suicidal thoughts.

Homicide

Homicide Death Rate
Healthy People 2030 Target
5.5

Homicide mortality rates are an outcome of violent crime in a community. In 2019, there was a total of 839 homicides in Georgia, 35 (4%) of which were in Gwinnett County. This resulted in an age-adjusted homicide rate of 3.7 per 100,000 population in the county (Georgia Department of Public Health, 2019).

WHY ARE UNINTENTIONAL INJURIES IMPORTANT?

"Unintentional injuries from things like falls, drug overdoses, and motor vehicle crashes are a major cause of death in the United States."

-Healthy People 2030

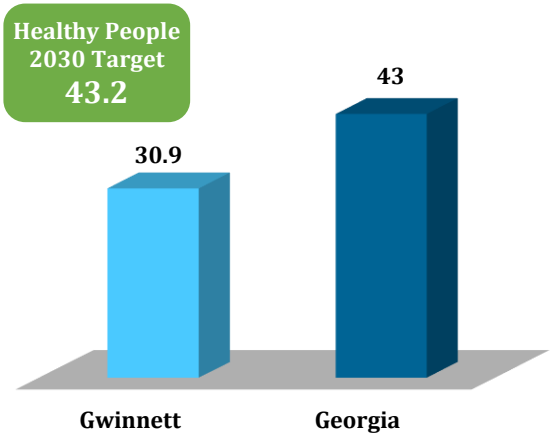
Unintentional Injuries

In the United States, injury is the leading cause of death for people between the ages of 1-45 (Centers for Disease Control and Prevention, 2020). Types of accidents and injuries include motor vehicle crashes, falls, accidental shootings, drowning, fire & smoke exposure, poisoning, suffocation, among other less common injuries. As of 2018, the national age-adjusted death rate for unintended injuries was 48.0 per 100,000 citizens (Centers for Disease Control and Prevention, 2019). Georgia had a rate of 41.7 deaths due to unintentional injuries per 100,000, the 8th lowest rate in the nation (Centers

for Disease Control and Prevention, 2020). Healthy people 2030 set a target goal of 43.2 deaths per 100,000, aiming for a 10% decrease over the next decade. **Figure 46** shows how Gwinnett County compares to both the state of Georgia at large as well as the Healthy People 2030 target.

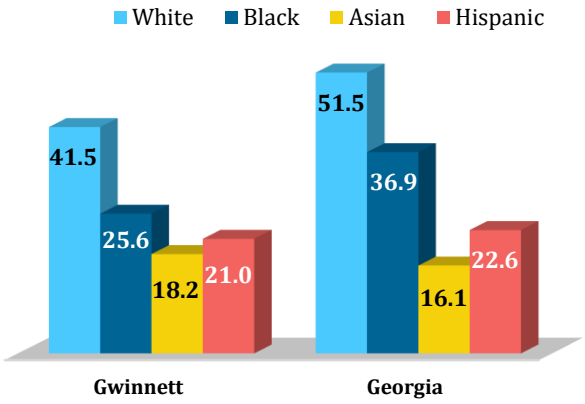
Gwinnett County, at 30.9 deaths per 100,000 population due to accidents or unintentional injuries, was well under both the rates for the state of Georgia (43 per 100,000) and the Healthy People 2030 target (43.2 per 100,000) (Georgia Department of Public Health, 2015-2019).

Figure 46: Age-Adjusted Death Rate (per 100,000 population) for Accidents & Unintentional Injuries, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Figure 47: Age-Adjusted Death Rate (per 100,000 population) for Unintentional Injuries by Race and Ethnicity, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Not all unintentional injuries occur equally across races throughout the state. As shown in **Figure 47**, Gwinnett's lower overall age-adjusted death rate for accidents resembles the racial breakdown in the state of Georgia. Statewide, the age-adjusted death rate for the white population due to accidents was 48.3 deaths per 100,000, followed by 37.0 per 100,000 in the Black population, 16.7 per 100,000 in the Asian population, and 22.6 per 100,000 in the Hispanic population. Comparatively, Gwinnett had 35.8 deaths per 100,000 in the white population, 26.0 in the Black population, 19.3 in the Asian population, and 21.0 in the Hispanic population. While Gwinnett's numbers were lower than Georgia in the White and Black populations, the death rate in the Asian population was higher compared to the rest of the state.

Georgia has above average traffic when compared to national trends. Georgia currently has 7.2 million licensed drivers and 8.4 million registered vehicles (U.S. Department of Transportation, 2018). Of these drivers, 79.4% drive alone when commuting, 3.1% higher than the national average (U.S. Department of Transportation, 2018). These trends of higher driving throughout the state have shown up in motor vehicle accident rates as well. As seen below in **Figure 48**, Georgia as a state (14 average annual deaths per 100,000 population) has been consistently higher than the Healthy People 2030 goal (10.1 per 100,000) for the last half-decade, but has begun trending in a favorable direction. Gwinnett County (8.3 per 100,000) has been better than the rest of the state throughout the same time frame, consistently coming in under the Healthy People 2030 goal.

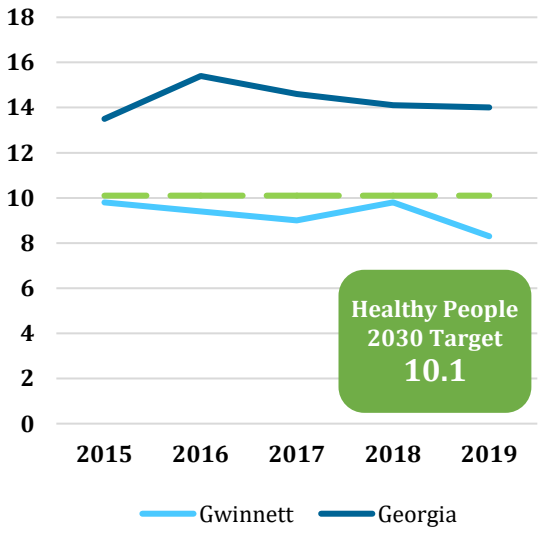
MOTOR VEHICLE ACCIDENTS

"Motor vehicle crashes are the second leading cause of death from unintentional injuries in the United States."

-Healthy People 2030

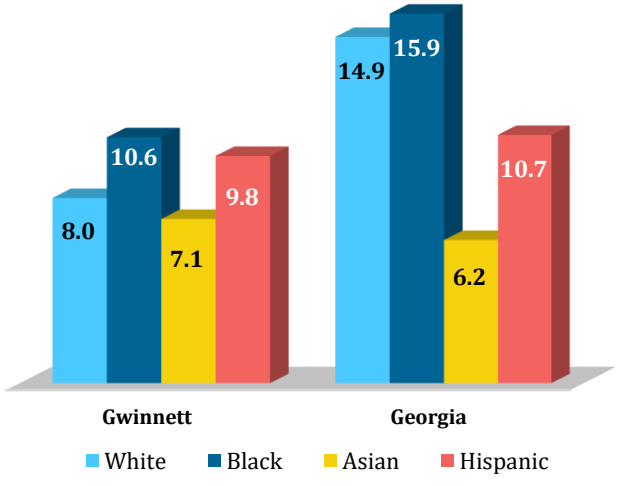
Figure 49 shows the racial data for motor vehicle crashes in Gwinnett County and the state of Georgia from 2015 to 2019. The data shows that every population group except Black in Gwinnett County is below the Healthy People 2030 goal of 10.1 deaths per 100,000.

Figure 48: Age-Adjusted Death Rate for Motor Vehicle Accidents in Gwinnett County and Georgia, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Figure 49: Age-Adjusted Death Rate (per 100,000 population) for Motor Vehicle Crashes by Race/Ethnicity in Gwinnett County and Georgia, 2015-2019



Source: Georgia Department of Public Health, Online Analytical Statistical Information System, 2015-2019

Community Stakeholders

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Part IV: Community Stakeholders

Process for Identifying Stakeholders

Stakeholder interviews provided additional insight into the health needs of the Community for this CHNA. Northside identified individuals in the Community who could provide a unique perspective and connection to the Community and its members' health needs. Northside made specific efforts to identify stakeholders with special knowledge of or expertise in public health. After identifying stakeholders to interview, Northside developed the Stakeholder Assessment Discussion Guide, a copy of which is included in Appendix A. This guide was used to lead a discussion with each stakeholder to learn about the needs and resources within the Northside Community. For this process, Northside reached out to 11 stakeholders, including a representative from the county-level public health department in the Community. This outreach effort resulted in the completion of six stakeholder interviews. **Table 16** summarizes the completed stakeholder interviews by organization and type.

Table 16: Summary of Stakeholder Interviews

Safety Net Clinics	Community Organizations	Health Departments
Hope Clinic	Healthy Mothers, Healthy Babies Coalition of Georgia	Gwinnett County Health Department
MedLink - Gwinnett	Gwinnett Coalition	
View Point Health		

Description of Our Participating Stakeholders

Northside conducted interviews with six stakeholders from across the Community, after contacting 11 stakeholders and inviting them to participate. The stakeholders that Northside contacted represented a broad range of perspectives from the local health department, safety-net clinics, Federally Qualified Health Centers, and community organizations. **Table 17** provides a summary of each stakeholder's mission and population served. Northside sought stakeholders who represent the medically underserved, uninsured, and disparate populations within the Community. Northside reached out to these stakeholders via phone and email in February 2021.

Table 17: Northside Community Stakeholder Summaries				
Type	**Organization**	**Stakeholder's Title**	**Geographic Area Focus for Interview**	**Mission**
Health Department	Gwinnett, Newton, & Rockdale Health Departments	Performance Management and Community Health Director	Gwinnett County	To protect and improve the health of our community by monitoring and preventing disease; promoting health and well-being; and preparing for disasters.
Safety Net Clinic	Hope Clinic	Executive Director	Gwinnett County	To provide the very highest quality of medical care to those with unlimited or no access to healthcare, and to treat each patient with the utmost respect and kindness without regard to language, national origin, religion, or ability to pay.
Safety Net Clinic	MedLink	Operations Support Specialist and Physician	Gwinnett County	To partner with patients to support their wellness through compassionate quality care.
Safety Net Clinic	View Point Health	Executive Board	Gwinnett County	To protect and improve the health of our community by monitoring and preventing disease; promoting health and well-being; and preparing for disasters.
Community Organization	Gwinnett Coalition	Executive Director	Gwinnett County	Drive positive community impact.
Community Organization	Healthy Mothers, Healthy Babies Coalition of Georgia	Research and Policy Analyst	Gwinnett County	To improve maternal and infant health through advocacy, education, and access to vital resources.

Summary of Stakeholder Input

The following sections summarize the stakeholders' responses to the Stakeholder Assessment Discussion Guide. A thematic analysis was performed to analyze the interview sessions in aggregate. While the stakeholders provided a wide range of responses to all questions, there were several recurring themes or sentiments that were mentioned more frequently than others. The thematic analysis allowed frequencies to be applied to the recurring themes. Frequencies represent the total number of times a particular theme arose, versus the number of unique respondents. For example, many of the questions were

phrased to have the respondent name the top three factors within the stakeholder's community. If the respondent named three unique economic factors, the frequency of the theme "economic" was counted three times. This methodology was chosen to illustrate the relative importance of a category versus a respondent count. The stakeholders' responses are summarized throughout the next sections based on the question that was asked.

Positive Health Assets within the Community

Stakeholders were asked "What are the top three factors or assets that positively impact the health of the community you serve?" This question was designed to identify areas of strength currently existent within the stakeholder's community. Additionally, by identifying areas of strength within the Community, possible areas for collaboration between organizations in the Community could be formed. The following chart illustrates the frequency of the stakeholder's responses.

Table 18: Positive Social Factors Impacting Health

Themes	Frequency
Community Org Partnerships & Collaboration	6
Abundance of Healthcare Resources	3
Access to Primary/Preventive Care	2
Financial Solvency/Funding Opportunities	2
Access for Uninsured/Indigent	2
Green Space/Parks and Recreation	1
Transportation	1
Healthy Lifestyle Behaviors	1

Community organization partnerships and collaboration was the most commonly discussed asset within the Northside Community. Stakeholders mentioned a strong sense of community among smaller enclaves within the county, as well as investment by community members in various forms, such as non-profit and grassroots organizations, healthcare providers, community watch groups, and caregiver groups for seniors.

Respondents also considered the abundance of healthcare resources an asset. Partnerships and collaboration and abundance of resources were related to the next three most commonly mentioned assets: access to primary/preventive care, financial solvency/funding opportunities, and access for the uninsured/indigent population. Most participants noted their partnerships with Northside, as well as with other organizations in the Community, as essential components to their ability to serve.

Negative Health Factors

Stakeholders were asked, "What are the top three factors/hindrances that negatively impact the health of the community you serve?" This question was intended to assess what the stakeholder thought the most pressing health needs in their community were, as well as help prioritize these factors. The responses are represented in the following table:

Table 19: Negative Social Factors Impacting Health

Themes	Frequency
Lack of Access to Primary/Preventive Care	3
Poverty/Lack of Financial Resources	3
Lack of Health Insurance	2
Lack of Translation Services and Cultural Competency	2
Transportation	2
Homelessness	1
Lack of Access to Specialty Care/Surgery	1
Lack of Awareness/Knowledge of Resources	1
Lack of Prenatal and Postpartum Support	1
Lack of Social Support for Immigrant Population	1
Provider Trust & Implicit Bias	1
Social Determinants of Health	1
Mental/Behavioral Health & Addiction	1

Responses to this question largely focused on social determinants of health (access to health resources, socioeconomic conditions, transportation options) versus health outcomes (chronic diseases, illnesses, death). While access to primary/preventive care was mentioned as an asset by some stakeholders, lack of access to primary/preventive care was mentioned as a negative social factor by others. Along with access to primary/preventive care, poverty/lack of financial resources was the other most commonly mentioned theme. Several stakeholders mentioned that although there are many benefits from Gwinnett's diversity, it also may present challenges when there are not enough translation services or culturally competent providers available to provide adequate care for the entire population. Other stakeholders mentioned that there are smaller pockets within the county that may experience limited resources, poverty, and other negative factors at higher rates.

Lack of resources such as health insurance and transportation were also mentioned as hindrances as well as provider challenges if unable to offer translation services or culturally competent care. Many of the negative health factors are strongly interconnected, illustrating the complexity of issues leading to negative health outcomes in the Community.

Physical Health Needs

Stakeholders were asked, "Could you describe and prioritize the top three physical health needs that negatively impact the health of the community members you serve." This question was intended to identify the major physical health needs (health outcomes) within the Community.

Table 20: Physical Health Needs	
Themes	**Frequency**
Heart Disease/Hypertension	5
Mental/Behavioral Health & Addiction	4
Diabetes	3
Obesity	2
Chronic Diseases	1
HIV/AIDS	1
Nutrition	1
Smoking	1
STIs	1
Tuberculosis	1

Stakeholders identified heart disease/hypertension, mental/behavioral health and addiction, and diabetes as the top 3 health needs within the Community. Many stakeholders also acknowledged the interconnectedness of these needs, and how one of the conditions can easily cause or exacerbate one of the others.

Barriers to Accessing Primary/Specialty Healthcare

Stakeholders were asked, "Can you identify any barriers that community members face in obtaining healthcare services (e.g. preventive/routine, specialty)?" This question was asked to identify barriers to access within the Northside Community. Many of the barriers to care were initially discussed as a negative health factor and further expounded upon during discussions surrounding this question.

Inability to pay was the most frequently mentioned barrier to care. Insurance-related barriers was the second most common response, and includes factors such as quality of insurance, lack of coverage, and challenges related to Medicaid disenrollment following the birth of a child. Lack of care coordination for community members needing care from more than one provider was another barrier mentioned by stakeholders. One stakeholder shared that services are available to identify issues but when it comes to referrals to resources for next steps there are challenges navigating within the confines of the individual's circumstances (e.g. financial situation, location). Provider trust and implicit bias was another commonly mentioned barrier highlighting the importance of provider/patient relationships to overcome challenges. One stakeholder shared that experiences of certain populations, particularly black mothers, can be negatively impacted if the patient feels that they are not being heard by their provider and may not be motivated to go back for return visits. Another stakeholder shared an example in which a client had encountered challenges obtaining care due to cultural barriers when she had searched for a female provider who accepted Medicaid and provided translation services and was told she could not be accommodated.

Table 21: Barriers to Care

Themes	Frequency
Inability to Pay	4
Insurance-Related Barriers	3
Lack of Care Coordination	2
Provider Trust and Implicit Bias	2
Transportation	2
Lack of Access to Chronic Disease Management	1
Lack of Access to Primary/Preventive Care	1
Lack of Documentation (e.g. Driver's License, Proof of Address)	1
Lack of Knowledge/Awareness of Available Resources	1

Transportation was mentioned as another common challenge that community members encounter when trying to obtain healthcare services.

Another stakeholder shared examples in which clients had attempted to obtain care and faced challenges when they were unable to provide all the requested documents or had incorrectly filled out forms at the providers' offices.

Vulnerable Populations

Many of the stakeholders that were interviewed for Northside's CHNA work directly with vulnerable/disparate populations within the Community. Each stakeholder was asked, "Would you consider any population within your community to be vulnerable or disparate?" This question was designed to identify the vulnerable populations within the Northside Community and subsequent questions were then asked to gain an understanding of this population's unique health needs. The way stakeholders defined "disparate/vulnerable population" is summarized in **Table 22**.

Table 22: Definition of Vulnerable Population

Themes	Frequency
Low-Income	4
Uninsured/Under-insured	4
Black	2
Foreign Born	2
Seniors	2
COVID Affected	1
Disabled	1
Domestic Violence/Child Assault Victims	1
Hispanic	1
Homeless	1
Non-English Speaking	1
Recently Incarcerated	1
Persons with Mental Illness	1

Most stakeholders stated that they considered the negative health factors for the vulnerable population to be the same as the general population's, but often at a more severe or pronounced level. One stakeholder shared that as individuals fall in to more than one vulnerable population, challenges can be compounded. Based on the analysis, lack of access to primary/preventive care and lack of health insurance were the top two factors negatively influencing the health of vulnerable populations within the Community.

Similarly, stakeholders were asked if they considered the physical health needs of the vulnerable populations they mentioned to be different than the overall population. Their responses are displayed in **Table 23**.

Table 23: Negative Factors Impacting the Health of the Vulnerable

Themes	Frequency
Lack of Access to Primary/Preventive Care	3
Lack of Health Insurance	3
Poverty/Lack of Financial Resources	2
Transportation	2
Lack of Self-Awareness/Health Education	2
Homelessness	1
Lack of Awareness/Knowledge of Resources	1
Lack of Translation Services and Cultural Competency	1
Social Determinants of Health	1
Mental/Behavioral Health & Addiction	1
Unhealthy Diet/Poor Nutrition	1

Again, most stakeholders reiterated the congruence of the health needs of the vulnerable and the general population, while caveating the pronounced rates of illnesses found in the vulnerable population. The top physical health concerns among the vulnerable were very similar to those of the overall population, with cancer care coordination and unhealthy diet/poor nutrition being the only themes not mentioned for the general population. One stakeholder mentioned that the most vulnerable populations may not have access to healthy foods and that most food banks are stocked primarily with carbohydrates.

Additional Stakeholder Comments

In addition to the formalized questions, each discussion ended with an opportunity for the stakeholder to share any additional thoughts or comments regarding the health status of their community that had not been discussed during the interview. Many stakeholders took this opportunity to mention health needs they saw in the Community, but they had not ranked in the "top three."

One stakeholder mentioned the effects of COVID on pregnant mothers and the impact of limitations on bringing a loved one to appointments to share special moments. These limitations also meant that a doula would more than likely be unable to be present in the delivery room due to "one visitor" policies. COVID concerns also spilled over to mental health of new mothers during heightened times of anxiety during new motherhood, virtual learning of any siblings in the home, lack of available family support due to social distancing, and fears surrounding the pandemic and the baby's health.

Separately, another stakeholder shared that the Community's ability to effectively respond to COVID was a positive. Another stakeholder commented on the large number of different languages that are spoken in Gwinnett County, highlighting Gwinnett's diversity.

Opportunity for Public Comment

In addition to conducting stakeholder interviews, Northside provided an opportunity for members of the general public to provide continued feedback on the Gwinnett Hospital System FY 2019-2021 CHNA. Following the merger, Northside provided a link to the Gwinnett Hospital System FY 2019-2021 CHNA on its website and also created a dedicated email, Northside.chna@northside.com, so that members of the public could provide feedback on the prioritized health needs. The email address is prominently listed on page 20 of the Gwinnett Hospital System FY 2019 – FY 2020 CHNA. To-date, no emails have been received.

Needs Prioritization

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Part V: Needs Prioritization

Our Prioritization Process

Northside developed a 5-step process for prioritizing the health needs identified through this CHNA as illustrated in **Figure 50** and described throughout this section.

Figure 50: Northside's Hospital System's Community Health Needs Prioritization Process

Step 1: Create a Crosswalk of all the Identified Needs

An array of health needs was identified through Northside's CHNA process. Oftentimes, the needs overlapped in meaning, support, and populations affected. With 23 needs identified, Northside grouped these needs into 12 categories that were then prioritized. The list of 12 needs is provided in **Table 24**.

Table 24: Northside's FY 2022-FY2024 CHNA Needs Categories

Affordability, Access to Care, & Insurance Coverage Status	Healthy Lifestyle Behaviors
Affordable & Adequate Housing/ Homelessness	HIV/AIDS
Cancer	Maternal & Infant Health
Cardiovascular Disease	Mental Health & Addiction
Culturally Competent Healthcare Services	Respiratory Disease/Smoking
Diabetes & Obesity	Transportation

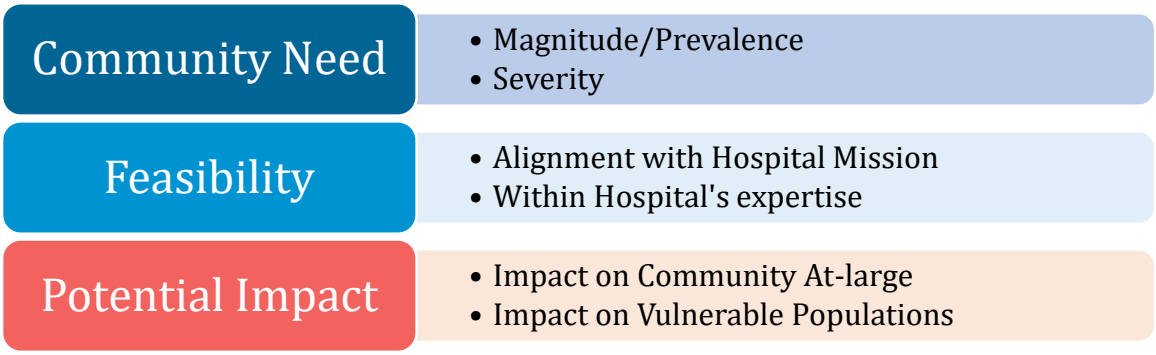
Step 2: Define the criteria used to guide the ranking process

After researching the various methodologies for establishing the criteria against which the identified needs would be scored, Northside adopted the Catholic Health Association's ("CHA") guidance (Catholic Health Association of the United States, 2015 Edition II). According to CHA, examples of criteria include:

1) Magnitude. The magnitude of the problem includes the number of population impacted by the problem.
2) Severity. The severity of the problem includes the risk of morbidity and mortality associated with the problem.
3) Historical trends.
4) Alignment of the problem with the organization's strengths and priorities (mission).
5) Impact of the problem on vulnerable populations.
6) Importance of the problem to the community.
7) Existing resources addressing the problem.
8) Relationship of the problem to the other community issues.
9) Feasibility of change, availability of tested approaches.
10) Value of immediate intervention versus any delay, especially for long-term or complex threats (Catholic Health Association of the United States, 2015 Edition II)).

For Northside's prioritization process, Northside elected to focus on the criteria presented in **Figure 51.**

Figure 51: Northside Hospital's CHNA Ranking Criteria FY 2021-2022



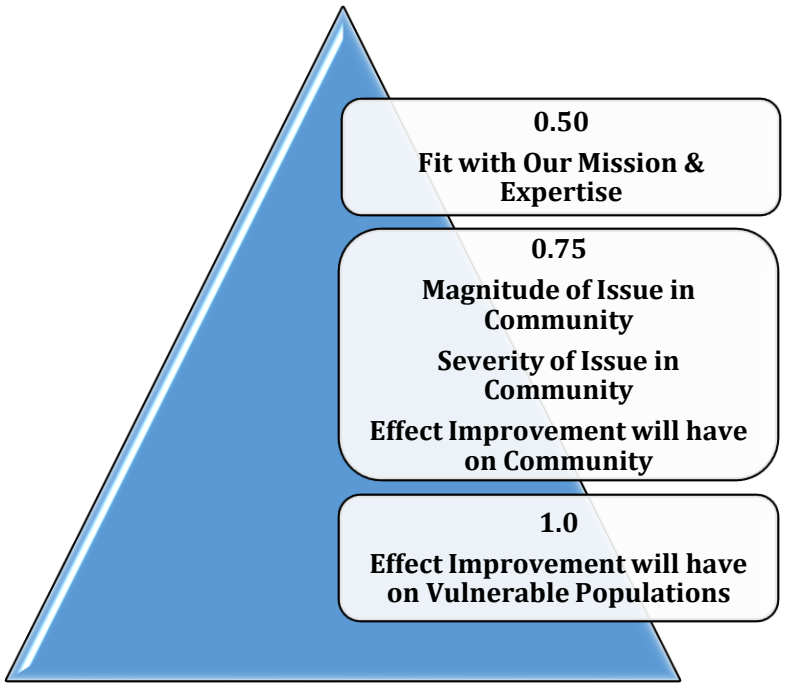
Step 3: Determine the weight of each criterion

Based on the CHA guidance, Northside researched ranking methodologies and decided to utilize the National Association of County and City Health Officials ("NACCHO") for guidance regarding the common practices used by county and city health departments for prioritizing the needs in their communities. NACCHO outlined five commonly-used prioritization techniques:

1) Multi-Voting Technique
2) Strategy Grids
3) Nominal Group Technique
4) The Hanlon Method
5) Prioritization Matrix

Northside adopted the prioritization matrix methodology given the number of prioritization criteria selected and the number of community needs identified. This methodology assisted Northside in prioritizing the health needs which will have the greatest impact on the Community. Northside's weight assignment to the prioritization criteria is provided in **Figure 52.**

Figure 52: Northside's CHNA Prioritization Criteria Weight Assignment



Step 4: Rate each identified need against the prioritization criteria

Throughout the CHNA process, Northside compiled and analyzed a variety of quantitative and qualitative data from a myriad of sources. After thoughtful consideration of the prevalence, frequency, and severity of the identified needs combined with any disparities and disproportionate impact an identified need may have on vulnerable populations, Northside utilized 12 Health Need Scorecards to evaluate each need category against each prioritization criterion and assigned that need category a priority score of 1 through 4.

1 = Not a Priority

2 = Low Priority

3 = Medium Priority

4 = High Priority

Table 25 (next page) is the CHNA Health Needs Scorecard Instructions which help the user rate each of the twelve identified needs for Northside's Community.

Table 25: CHNA Health Needs Scorecard Instructions			
Step 1	Assess the Magnitude of Issue in the Community (Weight of 75%)	Includes the number of people impacted by the problem. What percent of the population is the problem /issue affecting? What percent of other subsets of the population (races, vulnerable, etc.) is the problem/issue affecting?	Circle or color in ranking: 1 – Not a priority 2 – Low Priority 3 – Med Priority 4 – High Priority
Step 2	Assess the Severity of Issue in the Community (Weight of 75%)	Includes the risk of morbidity and mortality associated with the problem. Review if there are health disparities among certain population groups' morbidity and mortality data.	Circle or color in ranking: 1 – Not a priority 2 – Low Priority 3 – Med Priority 4 – High Priority
Step 3	Does it Fit Within the NH Mission/Expertise? (Weight of 50%)	Think about the alignment of the problem with the organization's strengths and priorities.	Circle or color in ranking: 1 – Not a priority 2 – Low Priority 3 – Med Priority 4 – High Priority
Step 4	Assess the Effect Improvement will have on Community (Weight of 75%)	Think about the importance of the problem to the community and relationship of the problem to other community issues.	Circle or color in ranking: 1 – Not a priority 2 – Low Priority 3 – Med Priority 4 – High Priority
Step 5	Assess the Effect Improvement will have on Vulnerable Population (Weight of 100%)	While assessments will look at the health needs of the overall community, low-income and other disadvantaged people deserve special attention and priority. Their needs should be a top priority and implementation strategies should include interventions to address these needs.	Circle or color in ranking: 1 – Not a priority 2 – Low Priority 3 – Med Priority 4 – High Priority

Step 5: Summarize the identified needs according to the prioritization methodology employed

The table below summarizes the final prioritization score of each identified need. The priority score of each need (e.g., 1, 2, 3, or 4) is multiplied by the prioritization criterion's assigned weight (e.g., 0.50, 0.75, or 1.00); the results are then summed for the total priority score for each identified need. The results were further prioritized using a methodology that was inclusive of both the Community Benefit Steering Committee (CBSC) and the Planning Department CHNA Health Needs Scorecards.

Table 26: Northside's FY 2021-FY2022 CHNA's Prioritization Total Score

1	Cancer	15.0
2	Culturally Competent Healthcare Services	14.6
3	Diabetes & Obesity	14.6
4	Cardiovascular Disease	14.5
5	Maternal & Infant Health	14.2
6	Affordability, Access to Care, & Insurance Coverage Status	13.5
7	Mental Health & Addiction	13.5
8	Healthy Lifestyle Behaviors	12.6
9	HIV/AIDS	11.5
10	Respiratory Diseases/Smoking	10.9
11	Affordable & Adequate Housing/Homelessness	10.0
12	Transportation	9.4

The Needs Northside Will Address

Ideally, Northside would have unlimited resources to address all of the Community's identified needs. However, it is not realistic for any single organization to address all of a community's needs, hence the importance of prioritizing the identified needs. Northside selected those needs that impact the greatest number of population in the Community; those needs that disproportionately impact the most vulnerable populations; those needs that are most severe and/or prevalent; and those needs that Northside has the wherewithal to address. Additionally, because Northside intends to further review, evaluate and prioritize the needs of Northside Hospital Gwinnett and Northside Hospital Duluth in connection with its next system-wide CHNA, which will be finalized by September 30, 2022, Northside has determined it is in the best interest of the Gwinnett community to focus on the top **three** identified needs to ensure that Northside is able to make meaningful progress towards addressing these needs over the next year.

Table 27: Northside's FY 2021-FY2022 CHNA's Prioritization Total Score

1	Cancer	15.0
2	Culturally Competent Healthcare Services	14.6
3	Diabetes & Obesity	14.6
4	Cardiovascular Disease	14.5
5	Maternal & Infant Health	14.2
6	Affordability, Access to Care, & Insurance Coverage Status	13.5
7	Mental Health & Addiction	13.5
8	Healthy Lifestyle Behaviors	12.6
9	HIV/AIDS	11.5
10	Respiratory Diseases/Smoking	10.9
11	Affordable & Adequate Housing/Homelessness	10.0
12	Transportation	9.4

Available Resources in Our Community

There are a rather sizeable number of existing and available resources in the Community to help meet the identified needs of Community members. This abundance of existing resources is not surprising given that the majority of Northside's Community is located in a densely populated metropolitan area. A summary of the number of resources in the Community is provided in **Table 28.** The community resources identified by Northside were divided into groups based on the health needs found in the Community, several categories were combined.[4]

Table 28: Count of Existing Resources

Resource Category	Need Category	Count
National & Local Cancer Resources Cancer Resources Offering Free Screenings	Cancer	16
Cardiovascular Resources	Cardiovascular Disease	7
Healthy Lifestyle Resources	Healthy Lifestyle Behaviors Respiratory Diseases/Smoking	13
Maternal & Infant Health Resources	Maternal & Infant Health	38
Health Care Access & Quality, Primary Care Resources	Affordability, Access to Care, & Insurance Coverage Status Culturally Competent Healthcare Services	36
Diabetes & Obesity Resources	Obesity & Diabetes	7
Behavioral & Mental Health Resources	Mental Health & Addiction	47
HIV/AIDS Resources	HIV/AIDS	11
Additional Resources	Affordable & Adequate Housing/Homelessness Transportation	96
Total Community Resources		**271**

[4] Given the large number of community resources available in the Northside Community, a detailed listing is not provided in the Appendix, but will instead be made available on Northside's website at https://www.northside.com/oth/Page.asp?PageID=OTH006561 for the Community to easily access it.

The Needs Northside Will Not Address

For the reasons explained above, Northside is unable to address all of the identified Gwinnett community needs at this time due to limited resources, magnitude/severity of the issue, or the presence of existing resources already in place to address the need. However, Northside intends to further review, evaluate and consider these needs in connection with its FY 2022 – FY 2024 system-wide CHNA

1) Cardiovascular Disease
2) Maternal & Infant Health
3) Affordability, Access to Care, & Insurance Coverage Status
4) Mental Health & Addiction
5) Healthy Lifestyle Behaviors
6) HIV/AIDS
7) Respiratory Diseases/Smoking
8) Affordable & Adequate Housing/Homelessness
9) Transportation

Evaluation of Impact

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Part VI: Evaluation of Impact of FY 2019– FY 2020 Activities

As mentioned earlier in this document, the purpose of this Community Health Needs Assessment (CHNA) is to meet the requirements under section 501(r) for merged and acquired facilities by conducting a CHNA by the end of the second taxable year following the merger of Northside with Gwinnett Hospital System. Accordingly, this CHNA focused on the needs of Northside's two newest hospitals - Northside Hospital Gwinnett and Northside Hospital Duluth.

Prior to the merger, Gwinnett Hospital System published a Community Health Needs Assessment in June 2019, the end of Gwinnett Hospital System's last fiscal year, prior to the merger with Northside. This report, in compliance with IRS Section 501(r) Final Rule, evaluates the impact of the actions Northside Hospital Gwinnett and Northside Hospital Duluth have taken in accordance with its FY 2019-2021 CHNA Implementation Strategy.

FY 2019 – FY 2021 Implementation Strategy Recap

In August 2019, Northside Hospital completed a merger with Gwinnett Health System. The existing implementation strategy will continue to be evaluated and the community benefit programs that address the particular priorities will be reevaluated based on Northside's interpretation of the community benefit definition and any department operational changes that may have occurred as a result of the merger.

The 2019 CHNA established priorities in terms of three major areas: treatment, access to care and prevention.

1. Treatment: managing health conditions and chronic disease treatments
2. Access to care: improving access to care
3. Prevention: preventing chronic disease and increasing wellness

After listing these priorities, Gwinnett Medical Center then took those priorities and assessed their internal processes to ensure they met these criteria. Their implementation process included analyzing departments such as the Emergency Department, Trauma Services, Women's Services, ICU, Sports Rehab, Physician Services, and Public Relations and Community Affairs among numerous other departments.

The tables on the following pages provide an update to the evaluation of impact of the prior CHNA by analyzing the baseline statistics compared to the current statistics. The "Trend" column provides a summary of if the current statistic is better or worse than the baseline.

Treatment			
Community Measure	Baseline Stat (FY 2019-2021)	Current Stat (FY 2021-2022)	Trend (better or worse) compared to prior CHNA
Percentage of Adults with Health Insurance	76.4%	78.8%	Better
Age-Adjusted Death Rate due to Falls	7.7	7.2	Better
Infant Mortality Rate	7.8	5.4	Better
Age-Adjusted Death Rate due to Obstructive Heart Disease	56.3	48.2	Better
Percentage of Medicare Population with COPD	9.5%	9.3%	Better
Age-Adjusted Death Rate due to Stroke	38.4	36.7	Better
Age-Adjusted Death Rate due to Cancer	139.2	128.9	Better
Age-Adjusted Death Rate due to Diabetes	16.9	18.6	Worse
Percentage of Persons with Disabilities	7.3%	6.5%	Better
Percentage of Adults who are Obese	27.9%	31.8%	Worse

Access to Care			
Community Measure	Baseline Stat (FY 2019-2021)	Current Stat (FY 2021-2022)	Trend (better or worse) than prior CHNA
Primary Care Provider Rate	61	63	Better
Percentage of Population with Linguistic Isolation	8.5%	8.6%	Worse
Number of Poor Mental Health Days	3.2	3.4	Worse

Prevention			
Community Measure	Baseline Stat (FY 2019-2021)	Current Stat (FY 2021-2022)	Trend (better or worse) than prior CHNA
Percentage of Adults who are Sedentary	20.9%	25.2%	Worse
Percentage of People 65+ living alone	17.9%	18.8%	Worse
Percentage of Adults who Smoke	13.8%	14.5%	Worse

Addressing Identified Health Needs

Following are high-level summaries of the community benefit program activities Northside Hospital Gwinnett and Northside Hospital Duluth engaged in over the course of FY 2019 and FY 2020 in order to address its Community's highest priority health needs related to:

1. Treatment: managing health conditions and chronic disease treatments
2. Access to care: improving access to care
3. Prevention: preventing chronic disease and increasing wellness

- **Faith Community Nursing** has completed more than 25 years of service to the community. Research has shown that people who are healthy in their spiritual and emotional life are better able to cope and become healthier in their physical bodies. Northside Hospital-Gwinnett encourages faith communities to provide health ministry in their congregations by training, supervising and supporting faith community nurses in their faith communities to promote whole person health. Faith community nurses function as case managers, personal health counselors, educators and volunteer coordinators for creative programs to improve the health of community members. **In FY 2020, the program impacted 13,737 community members. In FY 2019, the program impacted 20,976 community members**. The relationships with area faith communities are a key link in providing health outreach.

- **Oncology Prevention Education** programming focuses on colon cancer awareness, breast cancer awareness and also basic cancer prevention classes. **Over the course**

of FY 2020, these classes impacted nearly 2,500 community members and in FY 2019 approximately 1,235 community members.

- **Maternal and Infant Health** programming focuses on classes to educate community members on prenatal education, infant CPR, car seat safety, breastfeeding, newborn care, and a lactation counseling helpline. **Over the course of FY 2020, these classes and outreach impacted 635 community members. In FY 2019 around 9,444 community members were impacted.**

- **Breathe Better Gwinnett** program provided free lung screening, metabolic profiles including lipid profiles and blood glucose, free DME (nebulizers and pulse oximeters), and education on lung health and management of lung disease. **Breathe Better Gwinnett reached 181 community members in FY 2020.**

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