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FY22

# PIEDMONT CARTERSVILLE MEDICAL CENTER

## COMMUNITY HEALTH NEEDS ASSESSMENT



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# Introduction

As a not-for-profit healthcare system, the mission of Piedmont Cartersville Medical Center is healthcare marked by compassion and sustainable excellence in a progressive environment, guided by physicians, delivered by exceptional professionals, and inspired by the communities we serve.

In our commitment as a not-for-profit health system, Piedmont Healthcare studied the region's community health needs for its Community Health Needs Assessment (CHNA), a triennial process required by the Internal Revenue Service due to our tax-exempt status. A CHNA is a measurement of the relative health or well-being of a given community. It's both the activity and the end-product of identifying and prioritizing unmet community health needs, which is done by gathering and analyzing data, soliciting the feedback of the community and key stakeholders, and evaluating our previous work and future opportunities.

Through this assessment, we hope to better understand local health challenges, identify health trends in our community, determine gaps in the current health delivery system and craft a plan to address those gaps and the identified health needs. This is the first Piedmont Cartersville CHNA, as the hospital was previously a for-profit hospital not required to conduct such an assessment. The 2022 Piedmont CHNA will serve as a foundation for developing our community benefit strategies and further strengthening our community-focused work.

## About the hospital

Piedmont Cartersville Medical Center is a 119-bed acute care hospital, Chest Pain Center, Certified Primary Stroke Center, Level III Trauma Center, and Certified Total Joint Program facility accredited by the Joint Commission. The Breast Imaging Center provides mammography services that are gold seal accredited by the American College of Radiology. The Advanced Wound Healing Center provides specialized treatment for chronic or non-healing wounds. The Hope Center, a regional cancer treatment facility, is conveniently located on the hospital campus and provides over 4,000 treatments with more than 300 new patients per year from a 10-county region.

In FY21, PCH employed 800+ community members and 350+ physicians. That year, the hospital delivered nearly 900 newborns, treated 48,846 emergency department patients, performed 4,228 surgeries, saw 35,710 outpatient encounters, and treated 8,032 inpatients.

## About Piedmont Healthcare

Piedmont has more than 31,000 employees caring for 3.4 million patients across 1,400 locations and serving communities that comprise 80 percent of Georgia's population. This includes 22 hospitals, 55 Piedmont Urgent Care centers, 25 QuickCare locations, 1,875 Piedmont Clinic physician practices and more than 2,800 Piedmont Clinic members. Piedmont has provided \$1.4 billion in uncompensated care and community benefit programming to the communities we serve over the past five years.

# FY22 Priorities

A key component of the CHNA is to identify the top health priorities we'll address over fiscal years 2023, 2024, and 2025. These priorities will guide our community benefit work. They are, in no order of importance:

## Ensure affordable access to health, mental and dental care

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We will work to ensure that all community members have access to affordable health, mental and dental care, regardless of income. This includes partnerships with community-based organizations, as well as internal programming to increase access.

## Reduce preventable instances of and death from cancer

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We will promote both the prevention and treatment of all cancers, especially among those most vulnerable to the disease. This includes community-based screenings and the promotion of programming meant to support community members with cancer and their families.

## Promote healthy behaviors to reduce preventable chronic conditions and diseases

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We will actively promote healthy behaviors and encourage community members to stop risky behaviors, such as smoking, as well as curbing instances of obesity. This includes widespread health education and programming.

## Reduce preventable instances and death from heart disease

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We will promote both the prevention and treatment of heart disease and will emphasize early detection and healthy behaviors to help reduce risk. We will pay particular attention to populations most at risk for heart disease.

With each priority, we will work to achieve greater health equity by reducing the impact of poverty and other socioeconomic indicators for that priority. This means we will prioritize programming and investment in areas that directly address issues related to income and poverty and others who face particular challenges in accessing care due to disability, race, English proficiency, educational attainment and other areas of socioeconomic status. Additionally, whenever possible, health education will be available in the languages found within the community, with special attention spent on outreach to those populations.

When possible, we will work to address other issues that arose during the CHNA, such as Alzheimer's Disease, even though those are not listed in the above priority list. Also, we will work in all areas that need our assistance within our service area.

# About the community

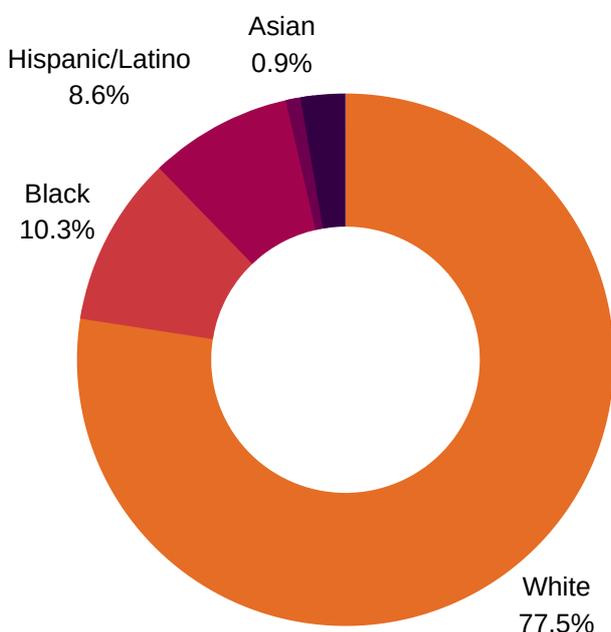
While Piedmont Cartersville serves patients from a ten-county area, for purposes of this CHNA, we consider our community to be Bartow County. We do this in recognition of the direct impact of our tax-exempt status on county residents.

## Overview

In Bartow County, an average 104,519 people lived in the 459.52 square mile area each year between 2015 and 2019. The population density for this area, estimated at 228 persons per square mile, is greater than the state average population density of 181 people per square mile and the national average population density of 92 persons per square mile. The ZIP code with the highest concentration of people was 30101, where 57 percent of the county's population called home. Bartow is mostly urban, as 65 percent of community members live within an urban setting. The ZIP code with the highest concentration of the rural population was 30104 and, like in most of Georgia, rural populations in Bartow are overwhelmingly white. Bartow County is growing, having seen a 9 percent increase in total population between 2010 and 2020.

About 7.7 percent of the population were veterans in 2020, and most were non-elderly adults. Fourteen percent of the population - about 14,500 people - lived with a disability. The majority of that population were under the age of 65.

About 24.4 percent of the population were 17 or younger, 14 percent were over the age of 65, and the remaining population were between the ages of 18-64. Between 2015 to 2019, about 84 percent of all Bartow County residents were white, 10 percent were African American, and about 6 percent were Hispanic/Latino. About 5.4 percent identified as being born outside of the US and 3.6 percent of the county's population does not have citizenship status.



The chart to the left represents a breakdown of races within the community. The community is still predominately white, though that is shifting as the community grows. Minority populations have steadily grown in recent years, with Hispanic or Latino populations leading growth at 40 percent from 2010 to 2020. While still a small part of the community, Asian populations are also growing, with 66 percent growth between 2010 and 2020.

# Root causes of poor health

In conducting the FY22 CHNA, we recognized two main issues that emerged as root causes of poor health.

## Poverty and health

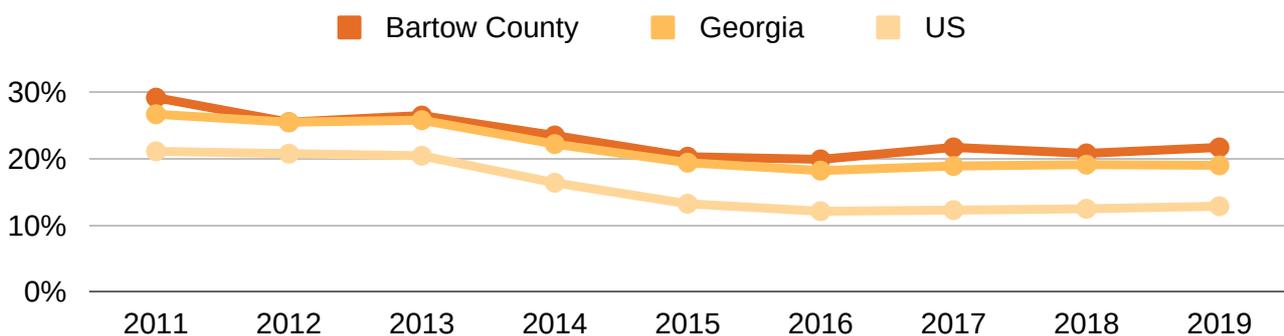
Poverty is the most significant indicator of health as, in general, poorer people are sicker than their richer counterparts. Those living at or near poverty are most likely to die from cancer, heart disease and diabetes, due to several factors that go beyond income, such as education, housing and simple geography, things commonly dubbed “social determinants of health.” This means that factors outside your immediate physical self can play a huge role in your health, even including how long you live. Life expectancy can vary as much as 30 years between the richest and poorest Georgia counties. Bartow County has a poverty rate lower than state and national averages, with about 14 percent of the population living at or below poverty. Minorities far more likely to live in poverty. The ZIP code with the highest percent of poor people is 30161, where 19 percent of the population lives at or below the Federal Poverty Level.

## Insurance status and health outcomes

In 2020, 15 percent of the population had no form of insurance. Insurance status and health are inextricably linked. Being uninsured is generally a marker of low-income, as the overwhelming majority of those that are uninsured are also within certain ranges of the Federal Poverty Level. This means these populations are also likely to face the myriad of other social determinants of health (SDH), like housing and food insecurity.

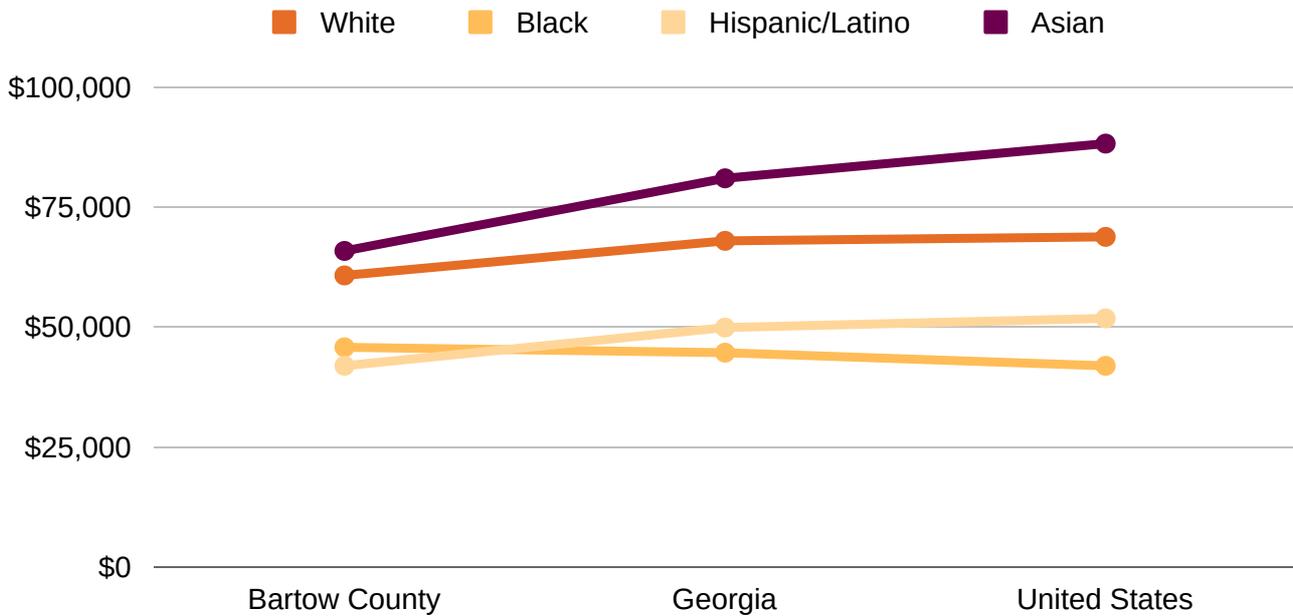
No insurance can mean no access to primary and specialty care, due to cost and/or provider availability. Conditions that could have been treated affordably in a community setting are often not and, because of this, those without insurance statistically suffer worse health outcomes than their insured counterparts. Diseases like cancer are often diagnosed later, and manageable conditions such as hypertension can elevate to dangerous levels.

When looking just at adults aged 18 to 64, the number of uninsured jumps to 22 percent. This number has declined over the last few years.



# Community and income

Between 2015 and 2019, the median household income was \$57,423, which is much lower than state and national levels, which are \$58,700 and \$62,843, respectively. When broken down by the four dominant races in the community, income disparities are evident.



Of employers in the community, the largest sector by employment size is manufacturing, which employed 10,524 community members at an average annual wage of \$67,978 in 2019, according to the US Department of Commerce. Retail trade was the second largest sector, with 5,914 people employed at an average annual wage of \$32,213. Government and government enterprises was the third largest sector, with 5,363 people employed at an average annual wage of \$63,798.

## Unemployment and labor force participation

According to the 2015-2019 American Community Survey, 52,849 people in the community were part of the labor force, and only 1,578 -- about 3 percent -- were unemployed as of January 2022. This figure has steadily decreased since last year, when in January 2021, 4.2 percent of the labor force was unemployed. When looking back further, the rate is three times less than the unemployment rate in 2012.

This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

# Community safety

Bartow County is a relatively safe community, with lower-than-average crime rates. Below is a chart breaking down offenses in 2017, as reported to the Georgia Bureau of Investigation. This is the last year for which this information is publicly available.

Murder	Rape	Robbery	Assault	Burglary	Larceny	Vehicle Theft
0	13	14	99	219	1,064	99

## Incarceration rate

The Opportunity Atlas estimates the percentage of individuals born in each census tract who were incarcerated at the time of the 2010 Census. According to the Atlas data, 3 percent of the county population were incarcerated, higher than the state average of 2.1 percent.

## Violent crime

Violent crime is a critical public health issue as it is often largely preventable. Between 2015 and 2019, there were a total 1,057 violent crimes within Bartow County, a figure that includes homicide, rape, robbery, domestic violence, and aggravated assault. This equates to a violent crime annual rate of 340.9 per every 100,000 people, a figure lower than the state and national rates of 373.1 and 416, respectively.

## Juvenile arrests

Within the county, in 2018, there were 15 juvenile arrests. Juvenile arrests can illustrate one aspect of the complex societies in which youth live. Juvenile arrests are the result of many factors such as policing strategies, local laws, community and family support, and individual behaviors. Youth who are arrested face disproportionately higher morbidity and mortality. Those who are arrested and incarcerated experience lower self-reported health, higher rates of infectious disease and stress-related illnesses, and higher body mass indexes.

## Firearm fatalities

Firearm fatalities are a critical public health issue as they are largely preventable. Most firearm fatalities are the result of suicides and homicides. Between 2015 and 2019, there were 171 firearm fatalities in Bartow County.

## Assault

In Bartow County, between 2014 and 2016, there were 89 reported assaults equaling an annual rate of 16.7 assaults per 100,000 people, much lower than the statewide rate of 230.20. Please note that this data is based on three-year aggregate reports between 2014 and 2016, the last year for which that data is available.

# Vulnerability and Deprivation indexes

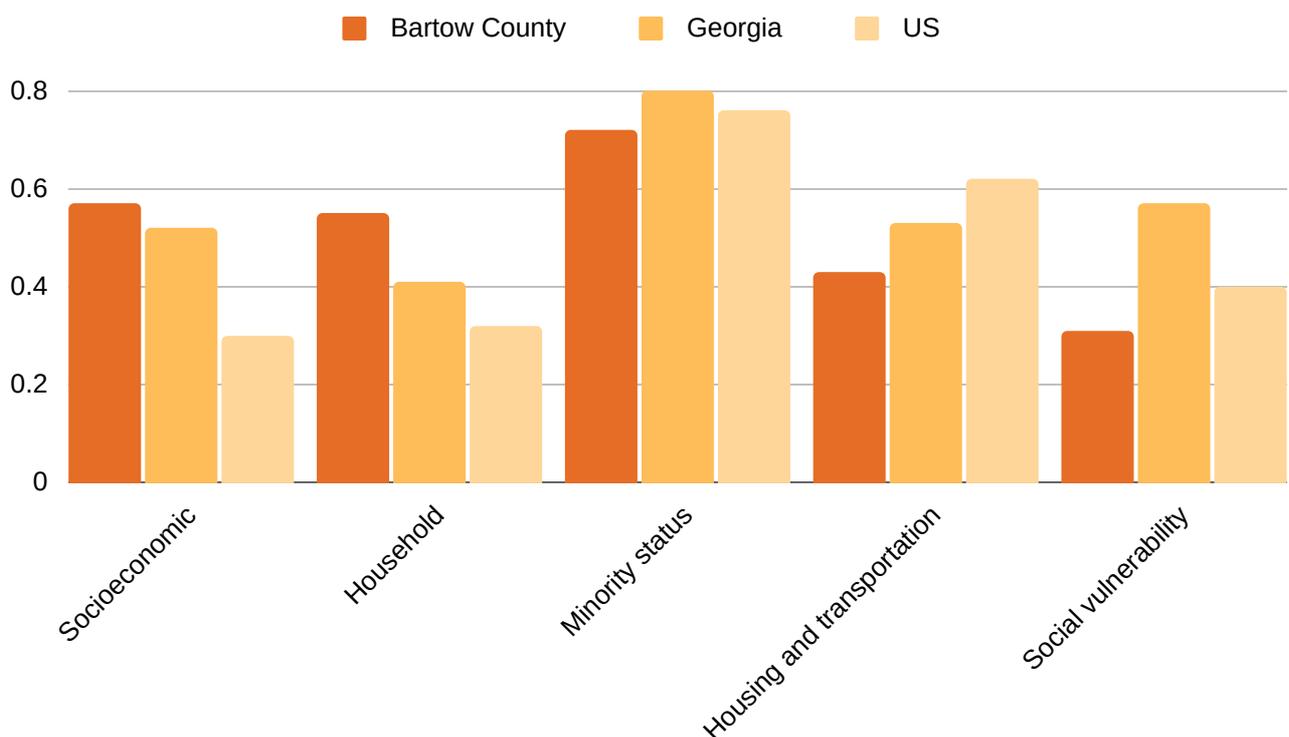
## Area Deprivation Index

The Area Deprivation Index (ADI) ranks neighborhoods and communities relative to all neighborhoods across the nation and the state. ADI is calculated based on 17 measures related to four primary domains: education, income and employment, housing, and household characteristics. The overall scores are measured on a scale of 1 to 100 where 1 indicates the lowest level of deprivation (least disadvantaged) and 100 is the highest level of deprivation (most disadvantaged). Bartow County ranks in the 46th percentile for Georgia and 58th in the national percentile, both of which are on the high side of average.

## Social Vulnerability Index

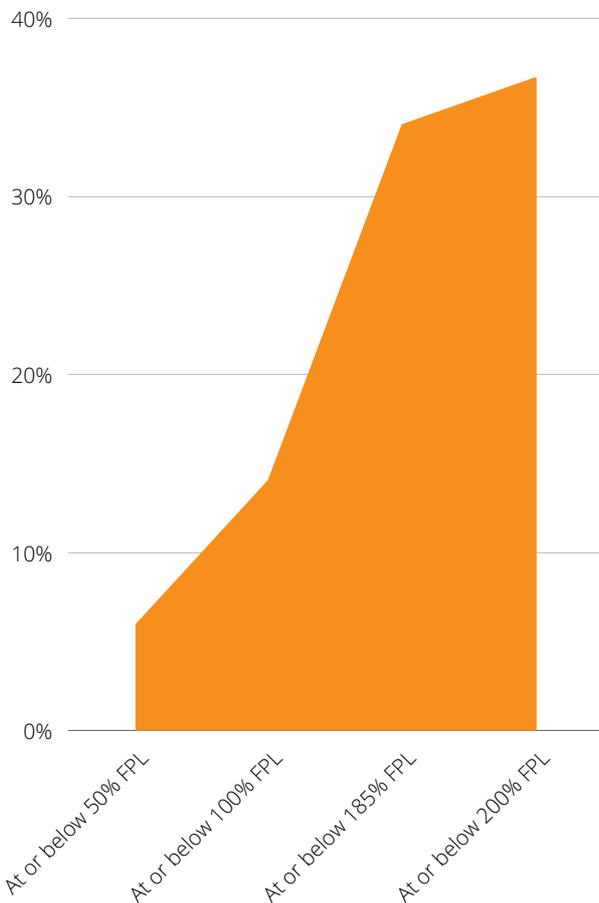
The Social Vulnerability Index is the degree to which a community exhibits certain social conditions, including high poverty, low percentage of vehicle access, or crowded households, that may affect that community's ability to prevent human suffering and financial loss in the event of disaster. These factors describe a community's social vulnerability.

The social vulnerability index is a measure of the degree of social vulnerability in counties and neighborhoods, where a **higher score indicates higher vulnerability**. Bartow County has a social vulnerability index score of 0.59, which is slightly higher than the state score of 0.57. Broken down by themes:



# Income and poverty

A person's income status is directly related to their health status, and predictably the more money you have, the healthier you tend to be.



The chart to the right demonstrates how many community members live in poverty or in near-poverty. In FY22, 14 percent of the county's population lived at or below the Federal Poverty Level (FPL), and 37 percent lived at 200 percent of the FPL. In 2022, the FPL placed at family of four has having a total household income of \$27,750. Even when living at twice the FPL, families are likely unable to afford many of life's basics.

By far, the poorest ZIP code within Bartow County is 30137, where nearly 48 percent of the population lived at or below 200 percent of poverty in 2020.

In Bartow County, like most of the state, minorities are more likely to live in poverty. For example, in 2020, 33 percent of Hispanic/Latino populations and 18 percent of blacks in Bartow County were living at or below poverty, as compared to 13 percent of whites.

## SNAP Benefits

The Georgia Supplemental Nutrition Assistance Program (SNAP) is a federally funded program that provides monthly benefits to low-income households to help pay for the cost of food. A household may be one person living alone, a family, or several unrelated individuals cohabitating who routinely purchase and prepare meals together. SNAP enrollment and poverty rates are co-related.

In Bartow County, nearly 13 percent of people received SNAP benefits in December 2020, representing about 4,846 households. Black populations are far more likely to receive SNAP benefits than any other demographic --- 18 percent all SNAP recipients are black and 20 percent are Hispanic/Latino, as compared to 11 percent of white recipients. The ZIP code with the highest amount of SNAP recipients was 30120, where a fifth of the population received SNAP benefits.

# Housing

In 2020, the median rent cost for a one-bedroom in Bartow was \$946, a 6.05 percent increase over the previous year. Rising rents mean less of an ability to pay for other crucial areas of life. According to 2020 USDA data, the average adult male spends between \$193 and \$358 on groceries per month, and the average adult female spends between \$174 and \$315. In Bartow County, in 2020, basic utilities average \$101 per month, and internet averaged \$59. Added together, the monthly costs for a single person are, at the very lowest end, \$1,198, not including transportation, insurance, and other costs of living. As the family size grows, costs increase, and households are increasingly burdened. None of the above reflects the impact of COVID-19 on housing stock, income, and increased cost of living, meaning the situation is likely worse than before.

## Cost-burdened households

Of the 37,627 total occupied households in Bartow County in 2020, 10,641 -- about 28 percent -- of the population live in cost burdened households, in which housing costs are 30 percent or more of total household income. Approximately 12.34 percent of households had costs that exceeded 50 percent of the household income, which places the household in significant financial strain.

## Substandard housing

This indicator reports the number and percentage of owner- and renter-occupied housing units having at least one of the following conditions: 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) with 1 or more occupants per room, 4) selected monthly owner costs as a percentage of household income greater than 30 percent, and 5) gross rent as a percentage of household income greater than 30 percent. Of all households in the county, 11,015 -- about 29 percent -- have one or more substandard conditions. This is better than the state average of 30.1 percent.

## Area Median Income and affordable housing

This indicator reports the number and percentage of housing units at various income levels relative to Area Median Income (AMI). The AMI is the midpoint of a region's income distribution, meaning that half of households in a region earn more than the median and half earn less than the median. A household's income is calculated by its gross income, which is the total income received before taxes and other payroll deductions.

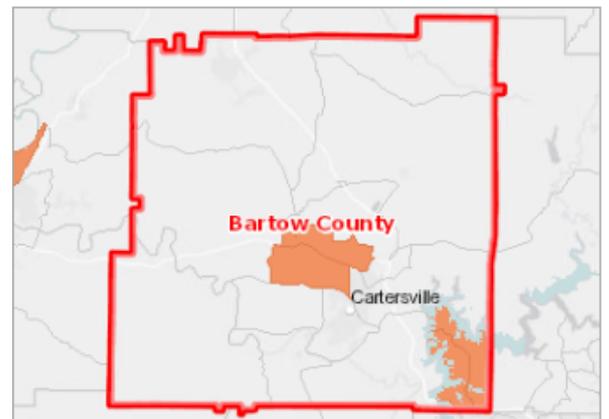
Affordability is defined by assuming that housing costs should not exceed 30 percent of total household income. Income levels are expressed as a percentage of the county's AMI. About 73 percent of housing units are affordable at 100 percent AMI, which means that housing is not affordable for the remaining 30 percent of the population. This is better than the state rate of 67.13 percent of housing units affordable at 100 percent AMI.

# Food deserts and food insecurity

Food insecurity happens when a person or family does not have the resources to afford to eat regularly. This can happen due to affordability issues, particularly for households facing unemployment, and especially so if they were already low-income. As with many health indicators, minorities are much more likely than their white counterparts to experience food insecurity.

Neighborhood conditions can affect physical access to food. For example, people living in some urban areas, rural areas, and low-income neighborhoods may have limited access to full-service supermarkets or grocery stores. Predominantly black and Hispanic neighborhoods tend to have fewer full-service supermarkets than predominantly white and non-Hispanic neighborhoods. Communities that lack affordable and nutritious food are commonly known as “food deserts.”

In Bartow County, in 2019, four of the county's 15 census tracts were food deserts, as shown in the map to the right. About 23,223 people lived within these census tracts. These tracts almost directly correspond with census tracts demonstrating retailers who are authorized to take SNAP benefits. In Bartow County, like with most of the state, those retailers tend to be convenience and discount stores that carry limited, if any, healthy foods. Increasingly, discount stores like Dollar General do have some sort of produce section, but that is inconsistent among communities.



## Grocery stores

Healthy dietary behaviors are supported by access to healthy foods, and grocery stores are a major provider of these foods. There are 14 grocery establishments in the county, a rate of 13.98 per every 100,000 people, which is lower than the state and national rates of 17.46 and 20.66, respectively. Grocery stores are defined as supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Delicatessen-type establishments are also included, and convenience stores and large general merchandise stores that also retail food, such as supercenters and warehouse club stores, are excluded.

## Low food access

Low food access is defined as living more than 0.5 mile from the nearest supermarket, supercenter, or large grocery store. This indicator is relevant because it highlights populations and geographies facing food insecurity. According to the 2021 Food Access Research Atlas database, nearly 30 percent of the total population in the county have low food access, meaning about 30,341 county residents may struggle to access healthy foods. This is on par with the state 30.89 percent. ZIP code 30102 has the worst rate of low food access at 50 percent of the population.

# Access to care

At the crux of healthcare is access, which is determined by a few factors: availability of providers, insurance status, and ability to pay.

## Insurance

Insurance status is directly related to a person's ability to access care, and this is particularly true for non-emergent care and specialty care. Health insurance makes a difference in whether and when people get necessary medical care, where they get their care, and ultimately, how healthy they are. Uninsured people are far more likely than those with insurance to postpone health care or forgo it altogether. The consequences can be severe, particularly when preventable conditions or chronic diseases go undetected.

Compared to those who have health coverage, people without health insurance are more likely to skip preventive services and report that they do not have a regular source of health care. Adults who are uninsured are over three times more likely than insured adults to say they have not had a visit about their own health to a doctor or other health professional's office or clinic in the past 12 months. They are also less likely to receive recommended screening tests such as blood pressure checks, cholesterol checks, blood sugar screening, pap smear or mammogram (among women), and colon cancer screening. Part of the reason for poor access among the uninsured is that half do not have a regular place to go when they are sick or need medical advice, while most insured people do have a regular source of care.

In Bartow County, in 2020, about 21 percent of the adult population were uninsured, a figure higher than the state rate 19 percent and the national figure of 12.84 percent. As with other indicators, these rates are much worse for minorities, and particularly Hispanic/Latino populations, which had an uninsurance rate of 43.8 percent.

## Insurance coverage

The below table demonstrates the type of insurance for those who had coverage in 2020, by percentage of the population. Note this doesn't equal 100 percent, as some community members have two types of coverage.

Employer or Union	Self-purchased	TRICARE	Medicare	Medicaid	VA
62.87%	13.53%	2.39%	18.81%	21.91%	2.45%

# Access to dental and primary care

## Dental care and dental outcomes

Dental care is crucial to health, as dental conditions that go unchecked can lead to decay, infection and tooth loss. Within the county, in 2018, 58.9 percent of adults went to the dentist in the past 12 months. That year, 17.8 percent of the county reported having lost all natural teeth because of tooth decay or gum disease. This is an impactful measure in multiple ways:

- Research shows that losing your teeth will shorten your lifespan. Missing nine teeth for nine years or more reduces lifespan compared to a contemporary who maintains their teeth.
- The lower your income and education level, the more likely you are to lose your teeth, which results in even fewer economic opportunities, creating a poverty cycle. For example, it is difficult to gain employment if you have visible missing teeth.
- The individual will inevitably struggle with eating certain foods, limiting their options, which can be detrimental for lower-income populations already facing food insecurity.

It's important to note that there are few options for low-income patients needing dental care. While most dental services for children enrolled in the low-income public health insurance program PeachCare are covered, for adults covered by Medicaid, only emergency dental care is provided. There are limited options for low-income dental care services within the county, and there are few -- if any, at a given time -- options for low-cost dental services that go beyond cleaning, basic fillings, and extractions. For example, if you have lost even one tooth, you have few, if any, options for implants that aren't at full retail cost. In Georgia, the cost to replace a single tooth can range from \$3,000 to \$4,500, out of pocket.

## Primary care and routine check-ups

In 2019, about 76 percent of adults aged 18 or older saw a doctor for a routine check-up the previous year, a measure that is likely over-reported and is lower than both state and national averages. For Medicare recipients, this number jumps to 88.26 percent of adult beneficiaries, which is above both state and national averages. Routine check-ups are a critical component to maintaining good health and identifying conditions that can be treated affordably in a community-based setting. Absent that, even simple-to-treat conditions can escalate to deeper issues, eventually requiring more intensive care, later stage diagnoses, or reduced life expectancy.

As with most all other indicators, race and income play heavily into this. White populations are far more likely to receive preventative care than their white counterparts (76.5 percent among black populations compared to 86.49 percent among white populations), and those with insurance are also much more likely to go to the doctor for a routine check-up than those without insurance.

# Causes of death

Below are the eight leading causes of age-adjusted death, in total between 2016 and 2020. The dials indicate how severe the rate is, as compared to the rest of the state.



Ischemic heart and vascular disease - 1



All COPD except asthma - 2



Essential hypertension and hypertensive renal and heart disease - 3



Malignant neoplasms of the trachea, bronchus and lung - 4



Cerebrovascular disease - 8



Alzheimer's Disease - 6



All other diseases of the nervous system - 7



Accidental poisoning and exposure to noxious substances - 8

When broken down by race, the leading causes of death shift. Below is a list of the top three causes of death, by race.

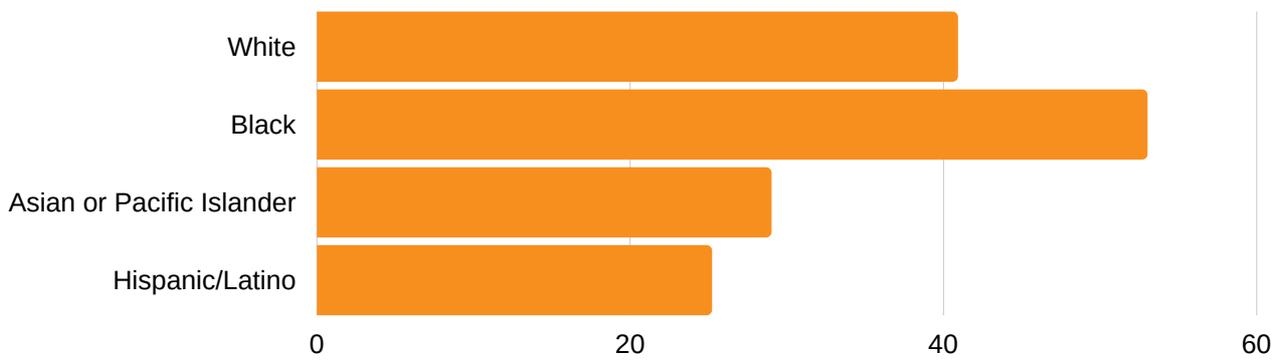
- White: Ischemic heart disease and vascular disease; all COPD except asthma; essential hypertension and hypertensive renal and heart disease
- Black or African American: Ischemic heart disease and vascular disease; essential hypertension and hypertensive renal and heart disease; and cerebrovascular disease
- Asian: Cerebrovascular disease, essential hypertension and hypertensive renal and heart disease, ischemic heart and vascular disease
- Hispanic/Latino: Diabetes; essential hypertension and hypertensive renal and heart disease; cerebrovascular disease

All other races had numbers too small to report.

# Heart disease and stroke

Heart disease is a leading cause of death for both women and men in Bartow County. In 2020, the age-adjusted death rate was 83.8 persons for every 100,000 people, which is between the state and national averages, which were 72.4 and 91.5 heart-related deaths per 100,000 people, respectively. In 2020, 7 percent of adults had a diagnosis with heart disease.

Between 2016 and 2020, there were 249 deaths due to stroke, representing an age-adjusted death rate of 47.3 deaths per every 100,000 people. Men are far more likely to die from stroke than women, as are black populations. Below is a chart demonstrating the stroke death rate, per every 100,000 people, broken down by race:



There are several potential reasons for this, including a higher poverty rate among black populations, which impacts all areas of life, including access to primary health care and healthy foods. Hypertension and other related chronic conditions also tend to be higher among black populations, as does obesity and diabetes, all of which tend to occur at a younger age than it does for their white counterparts. Finally, neighborhoods matter. In Bartow County, black populations tend to live in communities with lower walkability rates and more limited access to healthy foods.

## Hospitalizations

The cardiovascular disease hospitalization rate in 2018 was 18.4 hospitalizations per every 1,000 Medicare beneficiaries, which is much higher than the state and national rates of 12.2 and 11.8, respectively. The hospitalization rate for stroke is also above state and national rates, with 10 hospitalizations per every 1,000 Medicare beneficiaries, as compared to the state rate of 9.3 and the US rate of 8.4. These hospitalization rates for heart disease and stroke among Medicare recipients have remained relatively steady over the last five years.

# Cancer

Although heart disease leads in county deaths, cancer remains a critical issue within the community. The cancer incidence rate for Bartow County each year, on average between 2014 and 2018, was 472.4 per every 100,000, which equates to a diagnosis rate of an average 539 new cases each year. Below is a chart showing cancer diagnoses, by site, between 2014 and 2018, the last year for which this data is available.

Cancer Site	New Cases (Annual Average)	Cancer Incidence Rate (Per 100,000 Population)
1 - Lung and bronchus	91	78
2 - Breast	65	106.7
3 - Prostate	53	91.6
4 - Colon and rectum	51	46.7
5 - Melanoma of the skin	27	24.6

When comparing to state and national average, though, Bartow County does fare better in terms of overall diagnosis. This means one of two things: there are either fewer incidence rates of cancer within the community or there are fewer screenings for all members of the community, therefore resulting in fewer diagnoses.

Poverty is directly related to increased incidence rates of cancer, as those with lower levels of education and lower levels of income experience higher rates of cancer diagnoses. They are also more likely to die from certain cancers – particularly lung cancer and colorectal cancer. For survivors, income and socioeconomic status are significant predictors of quality of life after cancer. Increased income allows patients to maintain a level of comfort that people with low SES might not be able to afford, meaning that even if a low-income patient survives cancer, their quality of life after will be worse than someone more well off.

Screening rates among Medicare beneficiaries is in-line with state and national rates with the exception of breast cancer screening. In 2019, 73 percent of Medicare beneficiaries had a mammogram, as compared the state and national rates of 77 percent and 78 percent, respectively.

# Hospitalizations and ER visits

## Emergency department visits

In 2020, Piedmont Cartersville treated nearly 49,000 patient emergency room visits, a decrease of about 57,092 visits from 2019. This is likely in part due to the impact of COVID-19 and a wariness among patients to visit a hospital. In previous years, the rate remained steady, usually around 56,000 total visits each year.

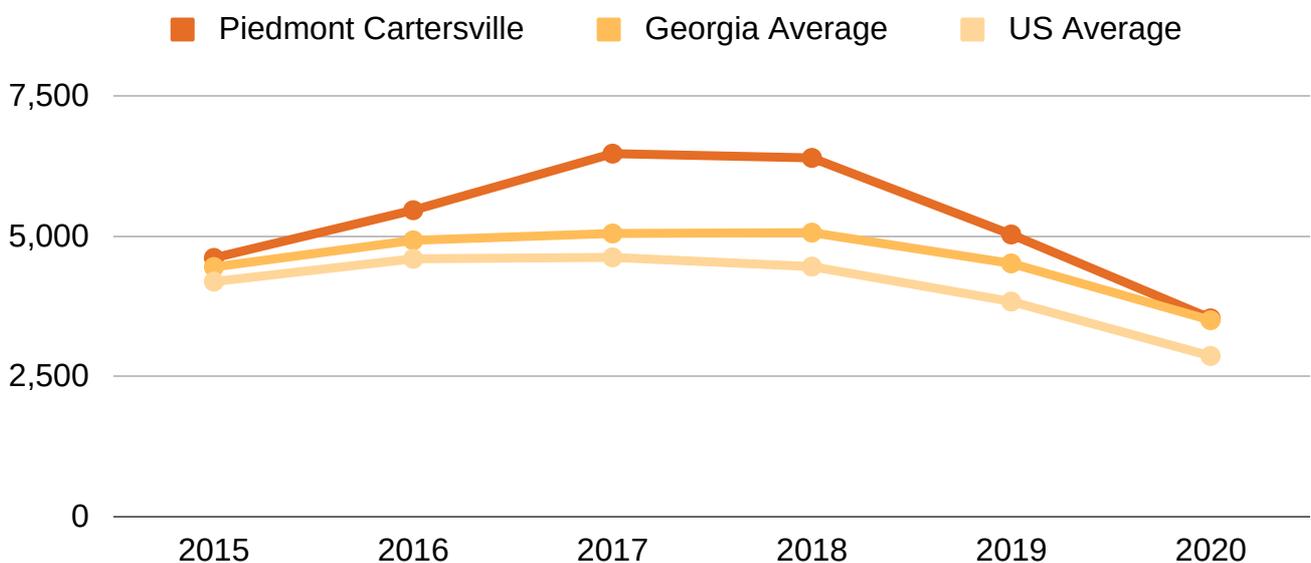
## Inpatient stays

In 2020, there were 18,437 Medicare beneficiaries in the county and approximately 17.5 percent of those stayed at least overnight in the hospital, resulting in a rate of stays of 278 per every 1,000 beneficiaries. The rate of inpatient stays in the county was higher than the state rate of 230.0 during the same time.

## Preventable hospitalizations among Medicare beneficiaries

Preventable hospitalizations include hospital admissions for one or more of the following conditions: diabetes with short-term complications, diabetes with long-term complications, uncontrolled diabetes without complications, diabetes with lower-extremity amputation, chronic obstructive pulmonary disease, asthma, hypertension, heart failure, bacterial pneumonia, or urinary tract infection. Rates are presented per 100,000 beneficiaries. In 2020, there were 3,536 preventable hospitalizations, which is on par with the state rate of 3,503 during the same time.

The below chart demonstrates the five-year trend for preventable hospitalizations over the last five years, as a rate of preventable hospitalizations per every 100,000 beneficiaries.



# Chronic conditions

A chronic condition is a health condition or disease that is persistent or otherwise long-lasting in its effects or a disease that comes with time. As with most health indicators, low-income households are most at risk for developing chronic diseases and for premature deaths. Such households are more vulnerable for several reasons, including their inability to cover medical expenses and diminished access to health care facilities.

## Diabetes

In 2019, 8.8 percent of county adults aged 20 and older had diabetes, a figure lower than the state rate of 9.8 percent. Diabetes is a prevalent problem in the US, often indicating an unhealthy lifestyle and puts individuals at risk for further health issues. When looking at ZIP codes, rates shift. For example, ZIP 30104 had a diabetes diagnosis rate of ten percent.

## Kidney disease

Chronic kidney disease, also called chronic kidney failure, involves a gradual loss of kidney function. Your kidneys filter waste and excess fluids from your blood, which are then removed in your urine. Advanced chronic kidney disease can cause dangerous levels of fluid, electrolytes and wastes to build up in your body. In 2019, 3.2 percent of the county's population had a diagnosis of kidney disease, a rate on par with state and national percentages of 3.22 percent and 3.1 percent, respectively.

## High cholesterol

In 2019, 34.6 percent of adults 18 and older who reported having high cholesterol of the total population. Too much cholesterol puts you at risk for heart disease and stroke, two of the main causes of death within the county.

## High blood pressure

In 2019, 36.1 percent of adults 18 and older had a diagnosis of high blood pressure. High blood pressure can damage your arteries by making them less elastic, which decreases the flow of blood and oxygen to your heart and leads to heart disease.

## Multiple chronic conditions among Medicare populations

This indicator reports the number and percentage of the Medicare fee-for-service population with multiple (more than one) chronic conditions. Data are based upon Medicare administrative enrollment and claims data for Medicare beneficiaries enrolled in the fee-for-service program. Within the county, there were 7,941 beneficiaries with multiple chronic conditions based on administrative claims data in the latest report year, representing 73.9 percent of the total Medicare fee-for-service beneficiaries. Twenty-two percent of beneficiaries have six or more chronic conditions.

# Infectious diseases

Infectious diseases are an issue in Bartow, as with most communities. Most infectious diseases have only minor complications. But some infections — such as pneumonia, AIDS, and meningitis — can become life-threatening. A few types of infections have been linked to a long-term increased risk of cancer. For example, human papillomavirus is linked to cervical cancer.

## **HIV/AIDS**

HIV (human immunodeficiency virus) is a virus that attacks the body's immune system. If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome). While there is no cure for HIV/AIDS, if treated, most can live a relatively healthy life. In Bartow County, in 2018, there were 219.8 confirmed cases of HIV/AIDS for every 100,000 people. This is significantly lower than the state rate of 624.90 confirmed cases per every 100,000 people.

## **Chlamydia**

Chlamydia is a common STD that can cause infection among both men and women. It can cause permanent damage to a woman's reproductive system. This can make it difficult or impossible to get pregnant later. Chlamydia can also cause a potentially fatal ectopic pregnancy (pregnancy that occurs outside the womb). In Bartow County, in 2018, there were 454 confirmed cases of chlamydia, resulting in a rate of about 432.16 infections per every 100,000 people. This is lower than the state rate of 632.2 confirmed cases per every 100,000 people.

## **Gonorrhea**

Gonorrhea is an STD that can cause infection in the genitals, rectum, and throat. It is very common, especially among young people ages 15-24 years. Untreated gonorrhea can cause serious and permanent health problems in both women and men. In women, gonorrhea can spread into the uterus or fallopian tubes and cause pelvic inflammatory disease (PID). In Bartow County, in 2018, there were 134.2 confirmed cases of gonorrhea for every 100,000 people, which is much lower than the state rate of 200.10 confirmed cases per every 100,000 people.

## **Influenza and pneumonia**

Within the county, between 2016 and 2018, there were a total 65 deaths due to influenza and pneumonia, representing an age-adjusted death rate of 12.3 per every 100,000 total population, which is lower than the state and national rates of 13.6 and 13.6, respectively. In Bartow County, men are nearly twice as likely to die from influenza or pneumonia than their white counterparts.

# COVID-19

Without a doubt, COVID-19 is easily one of the most impactful health events to happen within both the community and the world. As of April 26, 2022, Bartow County had a total 29,214 confirmed COVID-19 cases, resulting in a rate of 27,454.7 cases per every 100,000 people, which is higher than both state and national rates. To date, 443 county members have died from COVID-19, which equates to a death rate of 416.32 deaths per 100,000 people, which is also higher than the state and national rates of 344.23 and 299.14, respectively.

Approximately 45 percent of the county was fully vaccinated as of April 01, 2022, and the county had a COVID-19 vaccine coverage index (CVAC) of 0.72, which is a score of how challenging vaccine rollout may be in some communities compared to others, with values ranging from 0 (least challenging) to 1 (most challenging). Bartow ranks high, meaning it is more challenging within the community than most others in regard to vaccination uptake. CVAC ranks counties on barriers to coverage through 28 indicators across five themes:

- Historic undervaccination
- Sociodemographic barriers
- Resource-constrained health system
- Health care accessibility barriers
- Irregular care-seeking behaviors

## Community resilience

The US Census's Community Resilience Estimates (CRE) provide a metric for how at-risk every neighborhood in the United States is to the impacts of disasters, including COVID-19. The more risk factors you have, the less likely you are to recover from the impacts of COVID-19 in several ways, such as physically, economically, and psychologically. According to these estimates, as of April 01, 2022, within Bartow County:

- 36.1 percent of the population had no risk factors
- 41.9 percent of the population had one to two risk factors
- 22 percent of the population had three or more risk factors

These risk factors include:

- Poverty rates
- Single or zero caregiver household
- Crowding
- Communication barriers
- Households without full-time, year-round employment
- Households with disabilities
- No health insurance
- Age 65+ living alone
- No vehicle access
- No broadband internet access

# Children

Of the 104,919 people living in Bartow County in 2020, a fourth were under the age of 18. The ZIP code with the highest number of children was 30107, according to the Census Bureau. Approximately 2.5 percent of children and teens were homeless in 2020, meaning about 456 of youth had no permanent home.

Of all children, 45.14 percent lived at or below 200 percent of the Federal Poverty Level (FPL), which meant a family of four had a gross household income of \$55,500 gross household in 2022. The highest percentage of poor children lived in the 30137 ZIP code, where 67 percent of children lived below, at or near poverty in 2020.

Additionally, half of all of school-age children qualified for free or reduced-price lunch in the 2019-2020 school year, a figure far lower than the state rate of 60 percent. Free or reduced-price lunches are served to qualifying students in families with income under 185 percent (reduced price) or under 130 percent (free lunch) of the US FPL as part of the federal National School Lunch Program (NSLP).

## **Access - Head Start and preschool enrollment**

Head Start is a program designed to help children from birth to age five who come from families at or below poverty level. This helps these children become ready for kindergarten while also providing the needed requirements to thrive, including health care and food support. Bartow County has only three Head Start programs, with a rate of 4.3 per 10,000 children under 5 years old in 2020. This rate is far below state and national rates of 6.83 and 10.53, respectively. Approximately 29 percent of all children aged 3 to 4 were enrolled in preschool in 2020, a rate much lower than state and national figures of 50.26 percent and 48.32 percent, respectively.

## **Single-parent households**

In 2019, 25 percent of children who lived in households where only one parent is present, and the majority were led by a single woman. Statistically, compared to married parents, single parents tend to be poorer (because there is not a second earner in the family) and less well-educated (in part because early childbearing interrupts or discourages education, and single parent households tend to be led by younger parents).

## **English and math 4th grade proficiency**

Of 11,766 students tested, 60.8 percent of 4th graders tested below the "proficient" level in the English Language Arts portion of state standardized tests in the 2018-2019 school year, which is on par with the state rate of 60.7 percent and worse than the national rate of 53.8 percent. Reading proficiency is key; up until 4th grade, students are learning to read. After that, they are reading to learn.

For the math portion of the test, 52.26 percent of 4th graders tested below the "proficient" level, according to the latest data. Students in the county tested better than the statewide rate of 46.1 percent.

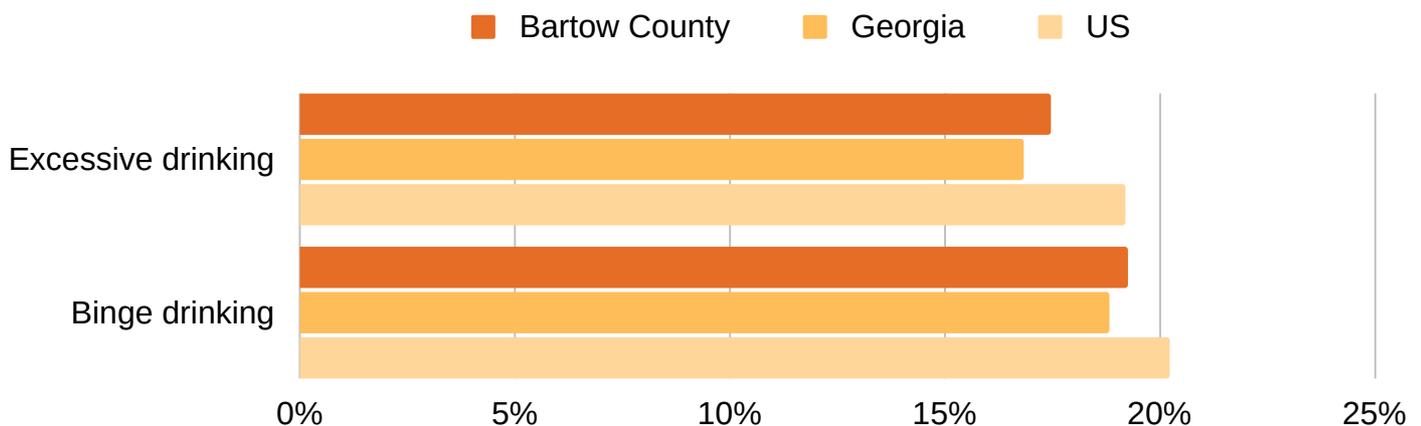
# Risky behaviors

Behaviors are directly related to health outcomes, leading to increased risks of cardiovascular disease, cancer, liver diseases, hepatitis, and sexually transmitted diseases.

## Alcohol use

Excessive alcohol use can lead to a myriad of health issues, including liver disease, depression, injuries, violence, and cancer. In Bartow County, in 2018, about 17.44 percent of adults self-reported excessive drinking in the last 30 days, which was less than the state rate of 16.81 percent. Data for this indicator were based on survey responses to the 2018 Behavioral Risk Factor Surveillance System (BRFSS) annual survey, the last year for which data is available. Based on preliminary national data, these rates likely increased during 2020, in which alcohol use increased during COVID-19 quarantine periods.

The below chart shows self-reported excessive and binge drinking rates in 2018. Binge drinking is defined as adults aged 18 and older who report having five or more drinks (men) or four or more drinks (women) on an occasion in the past 30 days. Excessive drinking is when binge drinking episodes occurred multiple times within the last 30 days.



## Tobacco use

Within the county in 2019, 21 percent adults reported being a current smoker. Smoking is directly related to a myriad of health issues, the most serious of which is cancer.

## Insufficient sleep

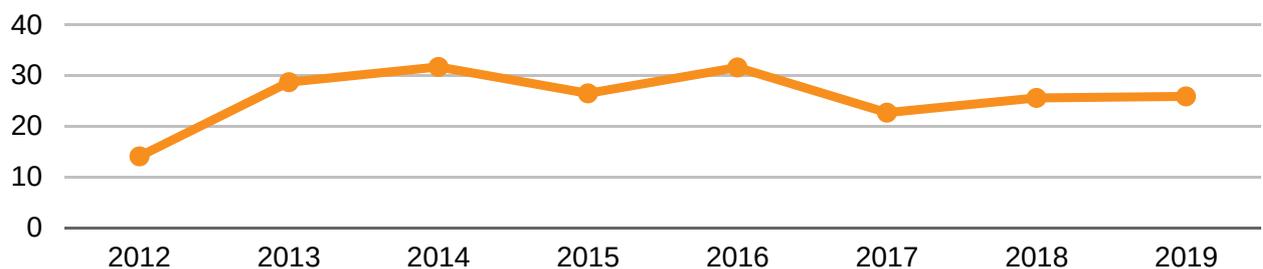
Approximately 38 percent of county residents reported regularly sleeping less than 7 hours most nights, on average, in 2019. Sleep is an essential function that allows your body and mind to recharge, leaving you refreshed and alert when you wake up. Healthy sleep also helps the body remain healthy, fight diseases, and maintain good mental health. Without enough sleep, the brain cannot function properly.

# Health factors

Certain health factors have a strong impact on overall health, including obesity and physical inactivity.

## Obesity

In 2019, 25.9 percent of county residents aged 20 and older were obese, meaning they had a body mass index of 30 percent or more. Obesity rates have risen and fallen over the last few years in Bartow County, as shown in the below chart. Obesity is directly linked to several health issues, including diabetes and heart disease.



In Bartow County, as throughout the state and nation, the poorer you are, the more likely you are to be obese. Additionally, Hispanic/Latino and black populations are much more likely to be obese than their white counterparts.

## Physical inactivity

Within the county in 2019, 30 percent of adults aged 20 and older self-report no active leisure time, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

One reason may be the lack of available public places for physical activity. For example, only 22 percent of county residents live within a half mile of a park, and there were only 11 recreation and fitness places within the county in 2019, resulting in a rate of 10.98 facilities per every 100,000 people. This is below both state and national averages.

## Soda expenditures

This indicator reports soft drink consumption by census tract by estimating expenditures for carbonated beverages, as a percentage of total food-at-home expenditures. Soda is directly related to obesity and poor dental health. In Bartow County, households spent an average 4.27 percent of their food budget on sodas in 2019, which are slightly higher than average state and national expenditures, which were 4.18 percent and 4.02 percent, respectively. Some ZIP codes spent more on soda, such as 30161 and 30145 which had rates much higher than other ZIP codes.

# Mental health

Mental health is a critical driver of overall health, as being in a good mental state can keep you healthy and help prevent serious health conditions, as poor mental health can lead to poor physical health or harmful behaviors. Access to services is key and, in Bartow County, there are only 126 mental health providers, resulting in a rate of 117 providers for every 100,000 people, a figure far below both state and national averages. There are almost no outpatient resources for uninsured patients seeking mental health services.

## Deaths of Despair

Deaths of despair -- suicide, drug and alcohol poisoning, and alcoholic liver disease—are at their highest rate in recorded history, according to the Centers for Disease Control and Prevention (CDC). In Bartow County, the average rate of deaths due to despair was 56.6 people every 100,000 people in 2020, which is far above the state rate of 38.1 and the national rate of 47. This is a figure that steadily risen since 2010, when 29.5 people per every 100,000 people died a death of despair. These deaths are most common among white men with four-year degrees.

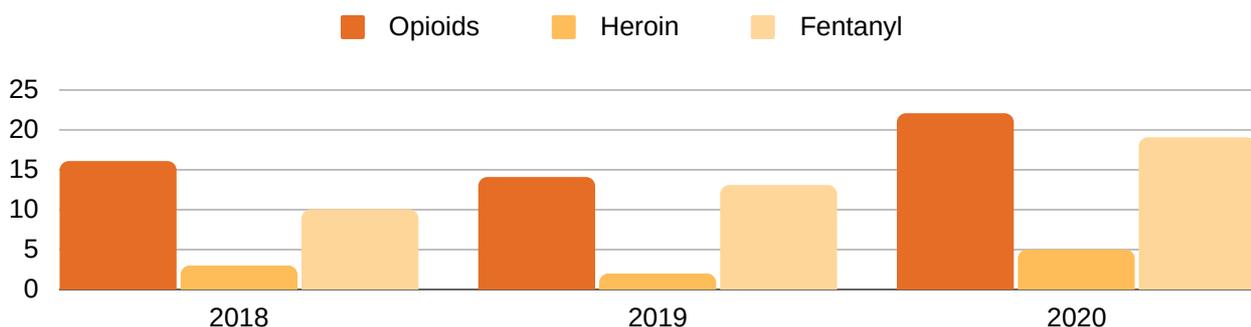
## Poor mental health days

In 2018, the last year for which data is available, county members reported an average 4.6 poor mental health days over the last 30 days, which is higher than the state average of 4.2 poor mental health days. This is a statistic that likely sharply increased in 2020 and 2021, when the severe mental impact of COVID-19 was felt throughout the community.

Additionally, in 2018, 15 percent of adults reported being in frequent mental distress, which is 14 or more poor mental health days within a 30-day period. This statistic also likely increased during 2020 and 2021.

## Opioid and substance use

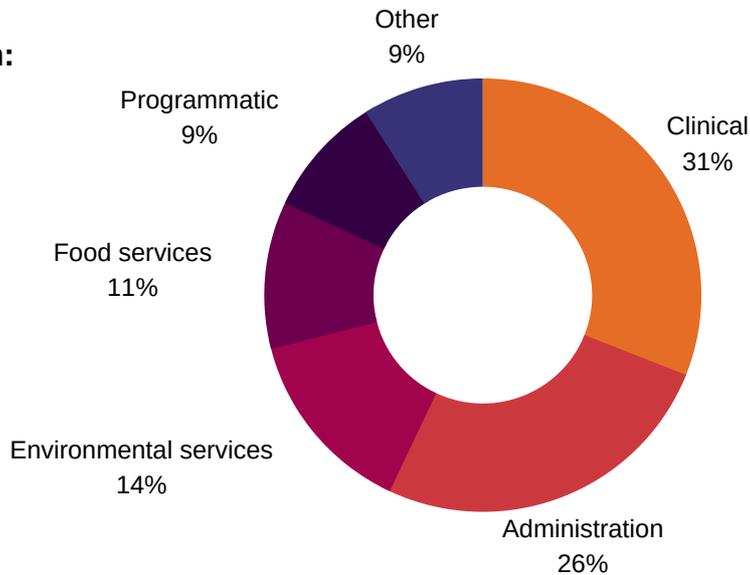
Providers in Bartow County prescribed 63.626 prescriptions per every 100 people in 2020, an increase from the year before, when the rate was 61.5 prescriptions for every 100 people. Overdose deaths are increasing, particularly for fentanyl, a synthetic opioid that is 80-100 times stronger than morphine.



# Employee survey

In March 2022, we launched an online employee survey to solicit community input on key health issues. A total 1,053 system employees responded, including 31 Piedmont Cartersville employees. Below are the results of that survey. You can find all survey questions in the appendix.

## The employees who responded worked in:



## They worked at:

- Piedmont Athens: 13.12%
- Piedmont Atlanta: 9%
- Piedmont Cartersville: 2.98%
- Piedmont Columbus: 8.93%
- Piedmont Eastside: 4.31%
- Piedmont Fayette: 7.69%
- Piedmont Healthcare: 4.29%
- Piedmont Henry: 5%
- Piedmont Macon: 4.4%
- Piedmont Mountainside: 5.83%
- Piedmont Newnan: 7.38%
- Piedmont Newton: 3.33%
- Piedmont Physicians: 4.4%
- Piedmont Rockdale: 4.64%
- Piedmont Walton: 3.45%
- Multiple locations: 5.98%
- Other: 5.36%

**Q: What do you think are the five most important factors for a healthy community? The top five answers were:**

1. Access to health care
2. Access to healthy foods
3. Economic opportunity for everyone
4. Healthy behaviors and lifestyle
5. Good place to raise children

**Q: What do you think are the five most important health problems in your community? The top five answers were:**

1. Aging problems
2. Poverty
3. Mental health problems
4. COVID-19
5. Heart disease and stroke

# Employee survey, cont'd

**Q: What do you think are the five riskiest behaviors in your community?**

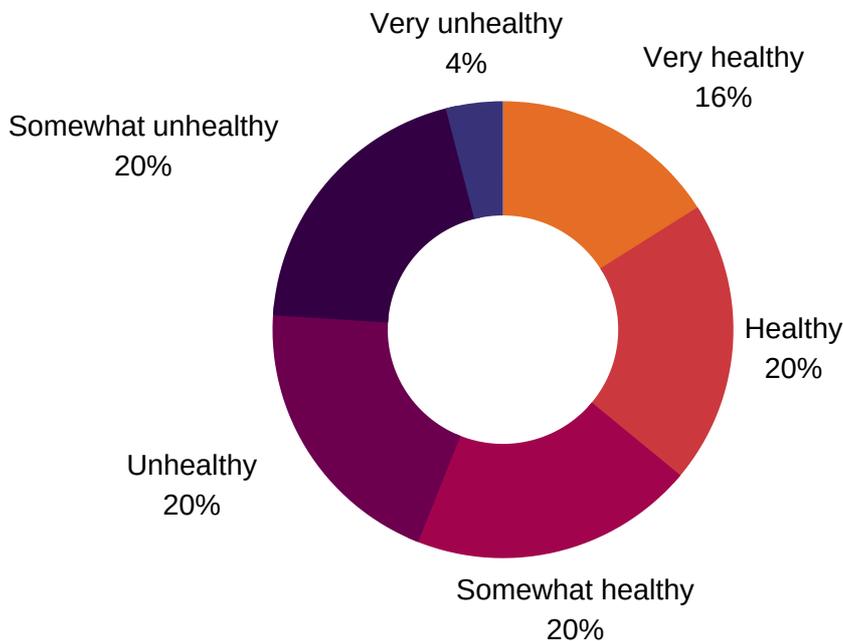
The top five answers were:

1. Not getting vaccinations to prevent disease, including COVID-19
2. Poor diet
3. Alcohol abuse
4. Tobacco use
5. Lack of exercise

**Q: What issues do you think may prevent community members from accessing care? The top five answers were:**

1. Unable to pay co-pays and deductibles
2. No insurance
3. Lack of access to transportation
4. Fear (e.g., not ready to face or discuss health problem)
5. Don't understand the need to see a doctor

**Q: How would you rate the overall health of your community?**



## Employee survey, cont'd

**Q: What do you think are the top five most important actions in improving the health of community members living within Piedmont communities? The top five answers were:**

1. Access to low-cost mental health services
2. Financial assistance to those who qualify
3. Access to dental care services
4. Community-based programs for health
5. Expanded access to specialty physicians

**Q: What is your vision for a healthy community? Some answers were:**

A healthy community includes access to affordable healthcare, healthy food, safe housing, quality education, and stable jobs.

A place where people are healthy enough to move about and enjoy life.

One that is educated, with access to health services both financially and geographically.

Families and individuals who care for each other.

A community who has access to services, I have been an ER nurse for nearly a decade and the mental health population continues to grow. There are not many resources for these patients; Advantage is great but it would be wonderful to have a local Piedmont facility to help with these patients.

Affordable housing that is safe.

More community care clinics where underserved communities can have access to "affordable" healthcare.

Using healthcare for prevention instead of trying to treat most problems after onset.

Free little food pantries on different blocks in towns, with healthy food choices.

A healthy community to me would be a place where social and financial factors do not stop a person for asking for help when in need. If everyone was able to get healthcare assistance, the community would be a healthy place as a whole.

## Employee survey, cont'd

**Q: What is the single most pressing issue that you believe our patients face? Most answers centered around cost, with some health factors. Among the answers:**

Barriers to accessing health care including lack of health insurance and poor socioeconomic status.

Medical bills.

Affordable, really affordable, health care for everyone.

Financial insecurity (including but not limited to people living at or below poverty lines).

Mental health.

Drug use, obesity, and heart failure are things that could probably be helped if they had the access to the right facilities.

Uninsured and underinsured people are so underserved. There are so many people who don't access care until they are falling apart and end up hospitalized simply because they couldn't afford to see a doctor and pay out of pocket rates.

Low healthcare literacy.

**Q: What are one or two things we can do better to serve our patients/our community? Some answers were:**

Include better discharge instructions on how to stay well at home. Also have a health hotline to triage calls before heading to emergency room.

Participate in community clinics that offer reduced cost preventative services (wellness, vaccines, chronic illness management) in challenged communities.

Get more involved in schools, as healthy behaviors start early.

Make non-emergent care more viable for uninsured and underinsured populations.

Help lower income patients with housing and food issues and provide discharge instructions that are viable for these patients.

Push the Governor to accept federal funding to fully expand Medicaid under the ACA.

# Community stakeholders

As part of our process, we interviewed nearly 245 stakeholders, policy makers, and lawmakers representing public health, low-income populations, minorities, chronic conditions, older adults, and our communities. These included ten stakeholders within the Cartersville community.

A common theme throughout most interviews is a sense that more needs to be done to prepare children for life, and particularly children who face particular challenges due to income or other socioeconomic indicators. As one stakeholder stated, "It's difficult to teach a child who is hungry." Additionally, many stakeholders felt as though the community is increasingly focused on growth, as it begins to blend. This perception of uncontrolled growth is closely connected to both non-health- and health issues. For example, almost all stakeholders mentioned a lack of affordable housing, lack of effective transportation and unfilled jobs.

One stakeholder also stressed that the lack of affordable housing is impacting the growing homeless population. The stakeholder commented how they know of multiple individuals who finally got a job but cannot afford housing: "They are doing what society wants but can still not succeed."

Several community health issues were mentioned during the interviews. The community health issues mentioned the most focused on mental health; physical health; substance abuse-opioid crisis; affordability for health-care, and ability to access health services. Certain populations were mentioned, including youth, women, those of low socio-economic status and minority populations.

Named issues were:

- Poor mental health was continuously mentioned during the interviews. Many stakeholders noted that mental health concerns had existed before COVID-19 but had now been intensified. Stakeholders mentioned many concerns regarding mental health such as lack of physical resources such as counseling services; lack of coping knowledge; societal issues such as stigma for seeking care; and finally, the intersection of mental health on other health issues such as substance abuse.
- Youth health and specifically a low literacy rate, social media addiction, growing concern for mental health and the need for suicide prevention, and growing substance abuse issues. Those working with youth had different opinions on obesity in youth, with many saying there was a huge concern while one individual noting there was not one at all. This theme may be important to target so adults understand the obesity crisis amongst youth and what the different standards of obesity are.
- Lack of affordable health care and a huge, underinsured population. One stakeholder mentioned how many providers were not accepting Medicaid.

## Community stakeholders, cont'd.

- Lack of availability of health services, specifically lack of appointments, these concerns included ranging from yearly physicals to appointments for specialized care to dental appointments. Several stakeholders needed there also needed to be more specialized doctors specifically for cancer care.
- Low health literacy and limited awareness of to certain health programming and initiatives such as telemedicine. Several stakeholders also noted the inability to understand how to navigate the health care system, basic knowledge into health such as healthy eating habits, coping with stress and sex education.
- Physical health and specifically the increase of sedentary lifestyles, poor eating habits and basic health literacy on physical health. Most stakeholders mentioned the overall obesity issues that plague the community.
- Ongoing racism and prejudice across various minority backgrounds. Several stakeholders felt that minority individuals felt “hopeless” in addressing their health because of the long history of inequities that impact these populations.
- Substance abuse and the opioid epidemic, with specific references to increased use of heroin and methamphetamine.
- Women’s health, including need for greater neonatal care, breastfeeding information, and mammograms.
- COVID-19 and its role in numerous health issues including a large anti-vaccine population, stigma for being vaccinated, increased mental health issues, increased sexually transmitted infections, a distrust of public health professionals, fewer available doctor appointments, increased rates of sedentary lifestyles, and increased substance use.

All stakeholders mentioned that working together and collaboration was an asset of the community, however there seemed to be differing opinions on the severity of several health issues, specifically childhood obesity and the increase of the opioid epidemic. Almost all community stakeholders acknowledged mental health as a key issue to address.

Stakeholders acknowledged that high health insurance, under-insured, lack of availability for appointments was a huge issue, but most certainly plagued at-risk, minority and vulnerable populations the most.

Almost all agreed that prevention is key but is still not being made a priority especially regarding early intervention and getting to the root causes of mental health issues and the opioid crisis.

# Methodology

The Piedmont Cartersville CHNA was led by the Piedmont Healthcare community benefits team and consulting organization Public Goods Group, with significant input and direction from Piedmont Cartersville's leadership and Piedmont Healthcare's Department of External Affairs.

The CHNA started with an analysis of available public health data. We looked at our Piedmont service region, which spans the northeast section of the state. We paid particular attention to the home counties of our hospitals, which is reflected in this CHNA. We focused on the home counties in the individual CHNAs due to the local impact of our tax-exempt status.

Once our community was established, we interviewed key stakeholders who have a particular expertise or knowledge of our communities. Specifically, we interviewed representatives of local and regional public health entities, minority populations, faith-based communities, local business owners, the philanthropic community, mental health agencies, elected officials and individuals representing our most vulnerable patients. These were:

An internal survey was also conducted throughout the healthcare system for both clinical and non-clinical employees. Information was gathered on knowledge and understanding of community benefit and current programs, as well as suggestions for how we can better serve our patients and communities. More than 1,000 employees spanning the system responded. Additionally, we conducted a community-based survey that was widely advertised to the community.

Once both qualitative and quantitative data was gathered, we authored the preliminary report. Several key community health needs emerged during the assessment process. The chosen priorities were recommended by the community benefit department with sign-off from hospital and board leadership. The following criteria were used to establish the priorities:

- The number of persons affected;
- The seriousness of the issue;
- Whether the health need particularly affected persons living in poverty or reflected health disparities; and,
- Availability of community and/or hospital resources to address the need.

While the priorities reflect clinical access and certain conditions, all priorities are viewed through the lens of health disparities, with particular attention paid to improving outcomes for those most vulnerable due to income and race. The priorities we chose reflected a collective agreement on what hospital leadership, staff and the community felt was most important and within our ability to positively impact the issue. Once priorities were chosen, we then authored the CHNA and presented our findings and recommendations to the hospital's board of directors for their input and approval.

# Approval

Hospital leadership then reviewed the CHNA and provided input. We incorporated their input into the final CHNA report, which is this report. We then presented our findings and recommended priorities to the hospital board of directors.

Once we established our priorities, we presented the CHNA to the board of directors for approval on May 17, 2022.

# Appendices

## Appendix one: Federal Poverty Levels

Data on the poverty threshold is created by the US Census Bureau, which uses pre-tax income as a yardstick to measure poverty. The statistical report on the poverty threshold is then used by the HHS to determine the federal poverty level (FPL). Below are the rates for 2022.

Family size	100%	150%	200%	300%	400%
1	\$13,590	\$20,385	\$27,180	\$40,770	\$54,360
2	\$18,310	\$27,465	\$36,620	\$54,930	\$73,240
3	\$23,030	\$34,545	\$46,060	\$69,090	\$92,120
4	\$27,750	\$41,625	\$55,500	\$83,250	\$111,000
5	\$32,470	\$48,705	\$64,940	\$97,410	\$129,880
6	\$37,190	\$55,785	\$74,380	\$111,570	\$148,760
7	\$41,910	\$62,865	\$83,820	\$125,730	\$167,640
8	\$46,630	\$69,945	\$93,260	\$139,890	\$186,520

## Appendix two: Stakeholders interviewed

In February and March 2022, we interviewed ten Bartow County community members. These included: Dr. Marc Feuerbach (Cartersville City Schools), Dr. Phillip Page (Bartow County Schools), Cyndi Carter (Department of Public Health), Barbara Hoffman (Recovery Bartow), Jessica Mitchman (Good Neighbors Shelter), Melanie Dallas (Highland Rivers Health), Rachel Castillo (Advocates for Children), Cindy Williams (Cartersville/Bartow County Chamber of Commerce), and Marty Sonenshine (Anverse, Inc., and member, Board of Trustees for Piedmont Cartersville).

### Appendix three: Sources for data

We utilized numerous data sources throughout the CHNA process. Due to the high volume in this report, we did not individually cite each statistic. That said, we provide a list of all data sources below. Please contact the Piedmont Healthcare community benefit department at [communityprograms@piedmont.org](mailto:communityprograms@piedmont.org) for questions on specific data points.

Category	Data Source
Demographics	US Census Bureau, Decennial Census, 2020.
Demographics	US Census Bureau, American Community Survey, 2015-19.
Demographics	University of Wisconsin Net Migration Patterns for US Counties, 2010-20.
Income and Economics	US Census Bureau, American Community Survey, 2015-19.
Income and Economics	US Census Bureau, Business Dynamics Statistics, 2018-19.
Income and Economics	US Department of Commerce, US Bureau of Economic Analysis, 2019.
Income and Economics	US Department of Commerce, US Bureau of Economic Analysis, 2019.
Income and Economics	US Department of Labor, Bureau of Labor Statistics, Jan. 2022.
Income and Economics	IRS - Statistics of Income, 2018.
Income and Economics	US Census Bureau, American Community Survey, 2015-19.

### Appendix three: Sources for data, cont'd

Category	Data Source
Income and Economics	US Census Bureau, American Community Survey, University of Missouri, Center for Applied Research and Engagement Systems, 2007-11.
Income and Economics	US Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture, 2017.
Income and Economics	US Department of Commerce, US Bureau of Economic Analysis, 2016.
Income and Economics	National Center for Education Statistics, NCES - Common Core of Data, 2020-21.
Income and Economics	US Census Bureau, Small Area Income and Poverty Estimates, 2020.
Education	US Department of Health & Human Services, HRSA - Administration for Children and Families, 2019.
Education	US Census Bureau, American Community Survey, 2015-19.
Education	National Center for Education Statistics, NCES - Common Core of Data, 2020-21.
Education	US Department of Education, EDFacts, 2018-19.
Education	US Census Bureau, American Community Survey, 2014-18.
Education	U.S. Department of Education, US Department of Education - Civil Rights Data Collection, 2017-18.
Housing and Families	US Census Bureau, American Community Survey, 2015-19.

### Appendix three: Sources for data, cont'd

Category	Data Source
Housing and Families	US Department of Housing and Urban Development, 2019.
Housing and Families	US Department of Housing and Urban Development, US Census Bureau, American Community Survey, 2019.
Housing and Families	Eviction Lab, 2016.
Housing and Families	US Census Bureau, American Community Survey, 2011-15.
Housing and Families	Federal Financial Institutions Examination Council, Home Mortgage Disclosure Act, 2014.
Housing and Families	US Census Bureau, Decennial Census, US Census Bureau, American Community Survey, 2015-19.
Housing and Families	US Department of Housing and Urban Development, 2014.
Housing and Families	US Census Bureau, Census Population Estimates, 2019.
Housing and Families	US Department of Housing and Urban Development, 2020-Q4.
Other Social & Economic Factors	University of Wisconsin-Madison School of Medicine and Public Health, Neighborhood Atlas, 2021.
Other Social & Economic Factors	Feeding America, 2017.
Other Social & Economic Factors	US Department of Education, EDFacts, 2019-20.

### Appendix three: Sources for data, cont'd

Category	Data Source
Other Social & Economic Factors	US Census Bureau, American Community Survey, 2015-19.
Other Social & Economic Factors	Opportunity Insights, 2018.
Other Social & Economic Factors	US Census Bureau, American Community Survey, 2015-2019.
Other Social & Economic Factors	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2020.
Other Social & Economic Factors	US Census Bureau, Small Area Health Insurance Estimates, 2019.
Other Social & Economic Factors	Opportunity Nation, 2019.
Other Social & Economic Factors	US Census Bureau, Decennial Census, University of Missouri, Center for Applied Research and Engagement Systems, 2020.
Other Social & Economic Factors	US Census Bureau, Small Area Income and Poverty Estimates, 2019.
Other Social & Economic Factors	Pennsylvania State University, College of Agricultural Sciences, Northeast Regional Center for Rural Development, 2014.
Other Social & Economic Factors	Centers for Disease Control and Prevention and the National Center for Health Statistics, CDC - GRASP, 2018.
Other Social & Economic Factors	Debt in America, The Urban Institute, 2021.

### Appendix three: Sources for data, cont'd

Category	Data Source
Other Social & Economic Factors	Centers for Disease Control and Prevention, National Vital Statistics System, 2013-19.
Other Social & Economic Factors	Federal Bureau of Investigation, FBI Uniform Crime Reports, 2014; 2016.
Other Social & Economic Factors	Federal Bureau of Investigation, FBI Uniform Crime Reports, 2014; 2016.
Other Social & Economic Factors	Townhall.com Election Results, 2016.
Physical Environment	US Environmental Protection Agency, 2018-19.
Physical Environment	Centers for Disease Control and Prevention, CDC - National Environmental Public Health Tracking Network, 2015.
Physical Environment	Centers for Disease Control and Prevention, CDC - National Environmental Public Health Tracking Network, 2016.
Physical Environment	EPA - National Air Toxics Assessment, 2014.
Physical Environment	US Environmental Protection Agency, 2019.
Physical Environment	US Census Bureau, County Business Patterns, 2019.
Physical Environment	National Broadband Map, Dec. 2020.
Physical Environment	US Census Bureau, American Community Survey, 2015-19.

### Appendix three: Sources for data, cont'd

Category	Data Source
Physical Environment	US Department of Health & Human Services, US Food and Drug Administration Compliance Check Inspections of Tobacco Product Retailers, 2018-20.
Physical Environment	Climate Impact Lab, 2018.
Physical Environment	Multi-Resolution Land Characteristics Consortium, National Land Cover Database, 2016.
Physical Environment	Federal Emergency Management Agency, National Flood Hazard Layer, 2019.
Physical Environment	Center for Disease Control and Prevention, CDC National Environmental Public Health Tracking, 2017-19.
Physical Environment	Federal Emergency Management Agency, National Risk Index, 2020.
Physical Environment	US Census Bureau, Decennial Census, ESRI Map Gallery, 2013.
Physical Environment	US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas, 2019.
Physical Environment	US Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture, 2017.
Physical Environment	Centers for Disease Control and Prevention, CDC - Division of Nutrition, Physical Activity, and Obesity, 2011.
Physical Environment	US Department of Agriculture, Food and Nutrition Service, USDA - SNAP Retailer Locator, 2021.

### Appendix three: Sources for data, cont'd

Category	Data Source
Physical Environment	US Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture, 2012.
Physical Environment	US Fish and Wildlife Service, Environmental Conservation Online System, 2019.
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool, 2019.
Clinical Care and Prevention	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018.
Clinical Care and Prevention	Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care, 2019.
Clinical Care and Prevention	Centers for Disease Control and Prevention, CDC - Atlas of Heart Disease and Stroke, 2016-18.
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool, 2020.
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2020.
Clinical Care and Prevention	Centers for Disease Control and Prevention, National Vital Statistics System, Centers for Disease Control and Prevention, Wide-Ranging Online Data for Epidemiologic Research, 2019.
Clinical Care and Prevention	Centers for Disease Control and Prevention, CDC - FluVaxView, 2019-20.
Clinical Care and Prevention	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2019.

### Appendix three: Sources for data, cont'd

Category	Data Source
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2015-18.
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2018-19.
Clinical Care and Prevention	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2015-16.
Health Behaviors	University of Wisconsin Population Health Institute, County Health Rankings, 2018.
Health Behaviors	Child and Adolescent Health Measurement Initiative, National Survey of Children's Health, 2018.
Health Behaviors	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2019.
Health Behaviors	Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018.
Health Behaviors	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018.
Health Behaviors	US Census Bureau, American Community Survey, 2015-19.
Health Outcomes	Centers for Medicare and Medicaid Services, CMS - Geographic Variation Public Use File, 2018.
Health Outcomes	State Cancer Profiles, 2014-18.

**Appendix three: Sources for data, cont'd**

<b>Category</b>	<b>Data Source</b>
Health Outcomes	State Cancer Profiles, 2014-18.
Health Outcomes	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2019.
Health Outcomes	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2019.
Health Outcomes	Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2018.
Health Outcomes	Centers for Medicare and Medicaid Services, 2018.
Health Outcomes	Centers for Disease Control and Prevention, National Vital Statistics System, 2016-20.
Health Outcomes	University of Wisconsin Population Health Institute, County Health Rankings, 2013-19.
Health Outcomes	Institute for Health Metrics and Evaluation, 2017.
Health Outcomes	Centers for Disease Control and Prevention and the National Center for Health Statistics, U.S. Small-Area Life Expectancy Estimates Project, 2010-15.
Health Outcomes	US Department of Transportation, National Highway Traffic Safety Administration, Fatality Analysis Reporting System, 2015-2019.
Health Outcomes	University of Wisconsin Population Health Institute, County Health Rankings, 2017-19.

### Appendix three: Sources for data, cont'd

Category	Data Source
Health Outcomes	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2018.
Health Outcomes	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool, 2019.
Healthcare Workforce	Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES), May 2021.
Healthcare Workforce	US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Feb. 2022.
Healthcare Workforce	US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Area Health Resource File, 2015.
Healthcare Workforce	Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES), 2021.
Healthcare Workforce	Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES), 2020.
Healthcare Workforce	US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Area Health Resource File, 2017.
Healthcare Workforce	US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File, Sept. 2020.
Healthcare Workforce	US Department of Health & Human Services, Center for Medicare & Medicaid Services, Provider of Services File, 2019.

### Appendix three: Sources for data, cont'd

Category	Data Source
Healthcare Workforce	US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Health Professional Shortage Areas Database, May 2021.
COVID-19	Johns Hopkins University, 2022.
COVID-19	Google Mobility Reports, Feb 01, 2022.
COVID-19	Centers for Disease Control and Prevention and the National Center for Health Statistics, CDC - GRASP, 2022.

### Appendix four: Employee survey

From March 01 to March 31, 2022, the hospital placed online an employee survey meant to capture employees' thoughts challenges within our communities and suggestions on how the hospital can improve its community's health. Below is the survey these employees received.

In our commitment as a not-for-profit health system, Piedmont is currently studying the region's community health needs for its Community Health Needs Assessment. As a member of our community, we invite you to take this 15-minute survey so that your feedback can be heard and included in identifying health priorities which we'll address over the next three years.

Thank you for your time and input.

1. What type of role do you have?

- Administrative
- Clinical
- Environmental Services
- Food Services
- Programmatic
- Other: Please describe

2. Are you an employee or are you a contract employee?

## Appendix four: Employee survey, cont'd.

3. What is your home zip code?

4. How do you define the community you serve in your role?

- From wherever our patients come
- All of Georgia
- The hospital's county
- Other: Please describe

5. In the following list, what do you think are the five most important factors for a healthy community? We consider this to be those factors which most improve the quality of life in a community.

- Access to health care (e.g., family doctor)
- Access to healthy food
- Arts and cultural events
- Civic participation
- Clean environment
- Ethnic and cultural diversity
- Financial assistance for health care at the hospital
- Healthy behaviors and lifestyles
- High retirement rates
- Emergency preparedness
- Good place to raise children
- Low adult death and disease rate
- Low crime/safe neighborhoods
- Low infant deaths
- Low level of child abuse
- Parks and recreation
- Low- and no-cost options for health care within the community
- Quality of care
- Quality of housing or housing availability
- Religious or spiritual values
- Social cohesion
- Strong family life
- Strong school district
- Transportation and walkability
- Other: Please describe

## Appendix four: Employee survey, cont'd.

6. In the following list, what do you think are the five most important health problems in our community? Please check five.

- Aging problems (e.g., arthritis, hearing/vision loss, etc.)
- Cancers
- Child abuse / neglect
- COVID-19
- Dental problems
- Diabetes
- Domestic violence
- Firearm-related injuries
- Heart disease and stroke
- High blood pressure
- HIV/AIDS
- Homicide
- Infant death
- Infectious diseases
- Mental health problems
- Motor vehicle crash injuries
- Poverty
- Rape/sexual assault
- Respiratory/lung disease
- Sexually transmitted diseases (STDs)
- Social isolation
- Suicide
- Teenage pregnancy
- Terrorist activities
- Health illiteracy
- Built environment
- Housing insecurity
- Neighborhood environmental risk (e.g., pollution, high lead exposure)
- Other: Please describe

7. How would you rate the overall health of our community?

- Very unhealthy (most have three or more chronic conditions such as heart disease or diabetes)
- Unhealthy (most have one or two chronic conditions such as heart disease or diabetes)
- Somewhat unhealthy
- Somewhat healthy
- Healthy
- Very healthy (most have no chronic conditions such as heart disease or diabetes)

## Appendix four: Employee survey, cont'd.

8. What issues do you think may prevent community members from accessing care?

- No insurance
- Unable to pay co-pays and deductibles
- Language barriers
- Lack of access to transportation
- Unable to use technology to find doctors, schedule appointments, manage online care
- Fear (e.g., not ready to face or discuss health problem)
- Don't understand the need to see a doctor
- Don't know how to find doctors
- Cultural/religious beliefs
- Lack of availability of doctors

9. Of the following, what do you think are the top five things most important in improving the health of community members living in our communities?

- Access to local inpatient mental health services
- Access to local outpatient mental health services
- Access to low-cost mental health services
- Access to health care services
- Access to dental care services
- Additional access points to affordable care within the community
- Cancer awareness and prevention
- Community-based health education
- Community-based programs for health
- Curbing tobacco use, such as banning indoor smoking
- Expanded access to specialty physicians
- Financial assistance for those who qualify
- Free or affordable health screenings
- Increased social services
- More options for paying for care
- Opioid awareness and prevention campaigns
- Partnerships with local charitable clinics
- Programs that address issues of housing
- Programs that address food insecurity
- Safe places to walk and play
- Substance abuse rehabilitation services
- Other: Please describe

#### **Appendix four: Employee survey, cont'd.**

10. What is your vision for a healthy community?

11. What is the single most pressing issue you feel our patients face?

12. What are one or two things we can do better to serve our patients/our community?

13. Do have questions about this survey or community health in general?