Coastal Health District 9-1

Georgia Department of Public Health
Coastal Health District

2023 Community Health Profile

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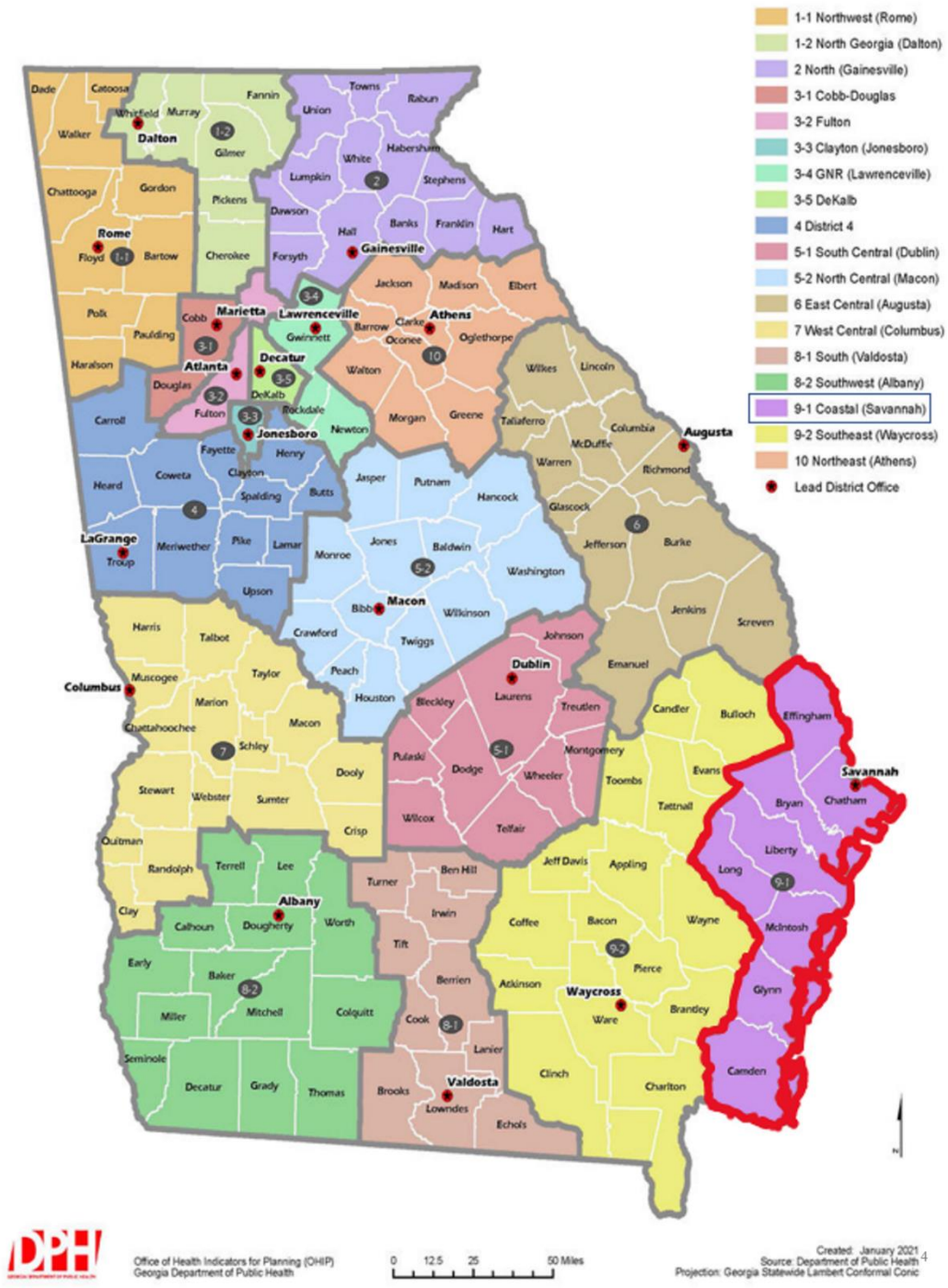
Figure 1: Georgia Department of Public Health District Map [1]



Source: Georgia Department of Public Health

Purpose and Methodology

The purpose of conducting the 2023 Coastal Health District 9-1 Community Health Profile is to analyze how the district is performing for various health indicators such as access to care, drug overdoses and opioids, chronic diseases, infectious diseases, mortality, and maternal and child health. Intersecting with this data is the impact of social conditions of health on wellbeing, i.e., the influence of circumstances related to economic status, education attainment, and social & neighborhood setting on individual, family, and community health outcomes. The compilation of this data is useful for directing and guiding the prioritization of community health needs within the Coastal Health District. Data are presented on county, district, and state levels, depending on the type of data available, and are from 2018 – 2022 unless otherwise noted. Several indicators also include trend lines from 2018-2022, as well as additional stratification by age, race/ethnicity, and sex. Data were obtained from numerous health data sources, including County Health Rankings & Roadmaps, Georgia Department of Public Health (DPH) data & Online Analytic Statistical Information System (OASIS), and the United States Census Bureau (U.S. Census) & American Community Survey (ACS). The data were collected from these and other sources from April 2023 – January 2024.

Introduction

The Coastal Health District (CHD) 9-1 is in southeast coastal Georgia and is one of the 18 public health districts that make up the Georgia DPH. Georgia has 159 counties, of which the Coastal Health District serves 8: Bryan, Camden, Chatham, Effingham, Glynn, Liberty, Long, and McIntosh. The Coastal Health District's mission is "to improve the health of those who live, work, and play in those counties by preventing disease, injury and disability; promoting health and wellbeing; and preparing for and responding to disasters." [2] As of 2022, the district consisted of 658,023 people, spread across both urban and rural counties and accounting for 6.0% of Georgia's population. [3]

CHD is headquartered in Savannah and Brunswick. Each CHD county has at least one health department that provides public health services to the community. There are a plethora of programs and services provided by the CHD, including child health services, chronic disease prevention, emergency preparedness and response, environmental health, epidemiology, immunizations, STD services, vital records; and the Women, Infants, & Children (WIC) nutrition program. In addition to health departments, Chatham, Glynn, and Liberty County also have HIV/AIDS treatment clinics (CARE Centers). [2]

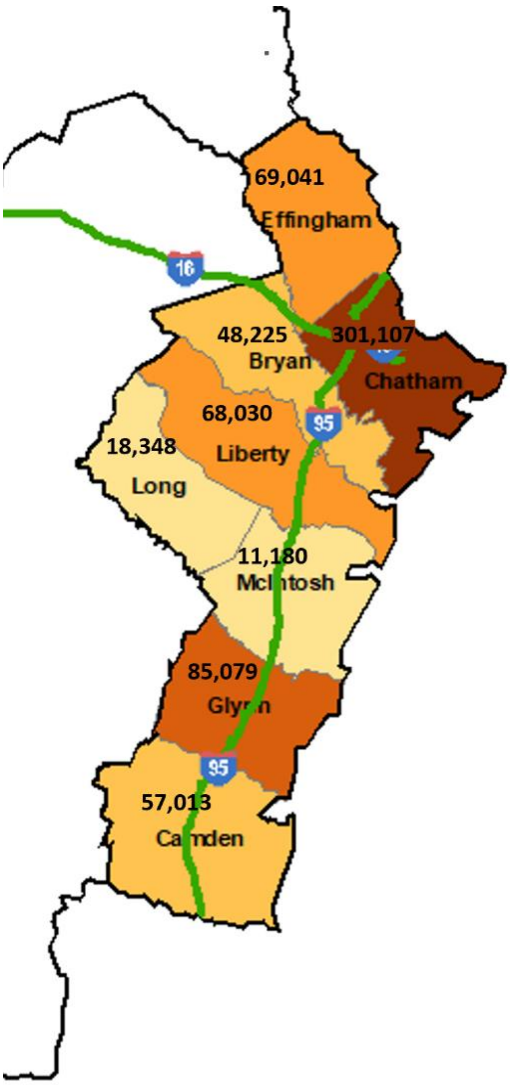
Demographics

Lived Experience

Population by County

The population of each county in CHD greatly varies, ranging from nearly 300,000 in Chatham County to just over 10,000 in McIntosh County. Chatham County has the largest population in the district by far, accounting for 46% of CHD's population. McIntosh County, on the other hand, has the smallest population in the district, accounting for just 1.7% of CHD's population [3]. Interestingly, while Glynn County has the second highest population in the district; its population is still less than 1/3rd of that of Chatham County.

Figure 2: Population Number, by County, 2022



CHD Population: 658,023

Source: OASIS

Age

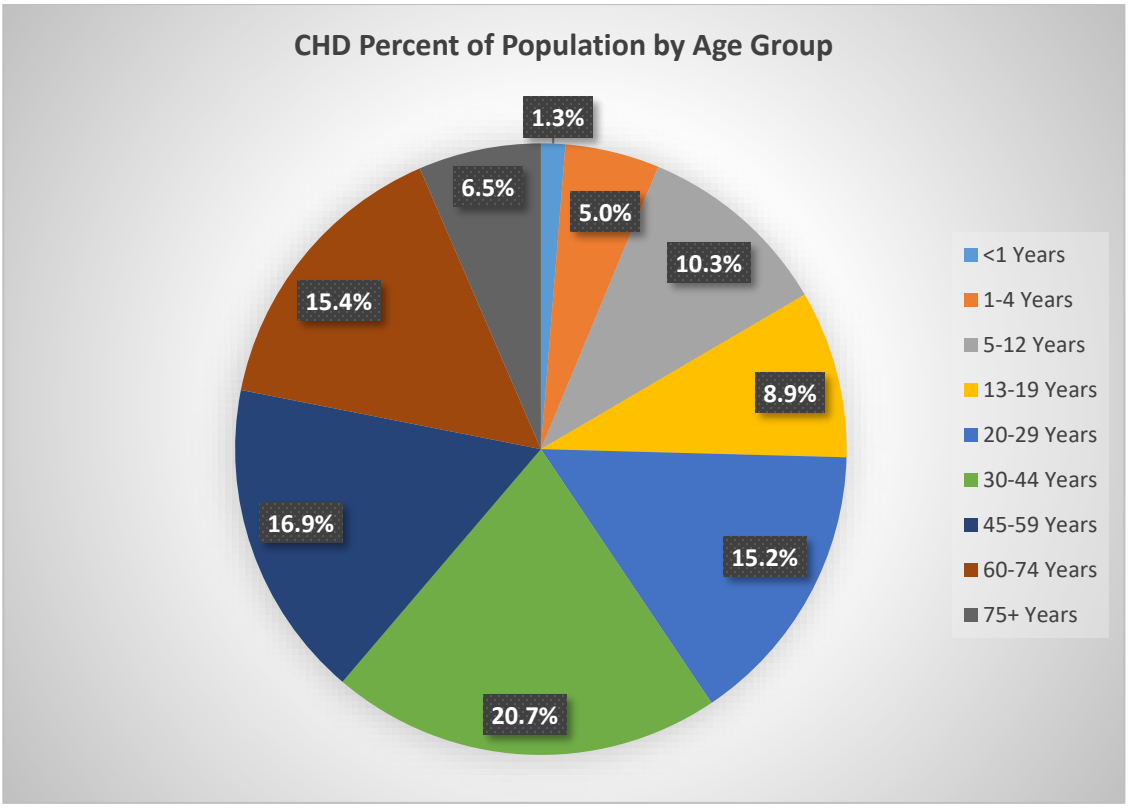
As some health problems are more common for specific age groups, and taking into consideration that people tend to develop more health issues as they age, assessing age can help determine which health outcomes should be prioritized for a community. [4] Age was stratified into the following nine groups based on the life stage grouping utilized in OASIS: <1 year (infancy), 1-4 years (early childhood), 5-12 years (later childhood), 13-19 years (adolescence), 20-29 years (early adulthood), 30-44 years (young adulthood), 45-59 years (middle adulthood), 60-74 years (late adulthood), and 75+ years (older adulthood). CHD's smallest age group is <1 year, at 1%. The largest age group in both the CHD and Georgia is 30-44 years (young adults), at 20.7% and 20.3%, respectively. In fact, CHD and Georgia's age group distribution are almost identical.

**See supplemental appendix for Georgia's percentage of population by age group.*

All CHD counties besides Glynn, Liberty, & McIntosh County have 30-44 years as their largest age group; Liberty County's largest age group is 20-29 years, while Glynn County's and McIntosh County's largest age group is 60-74 years.

**See supplemental appendix for the percentage of population by age group by county.*

Figure 3: Percent of Population by Age Group, CHD, 2022

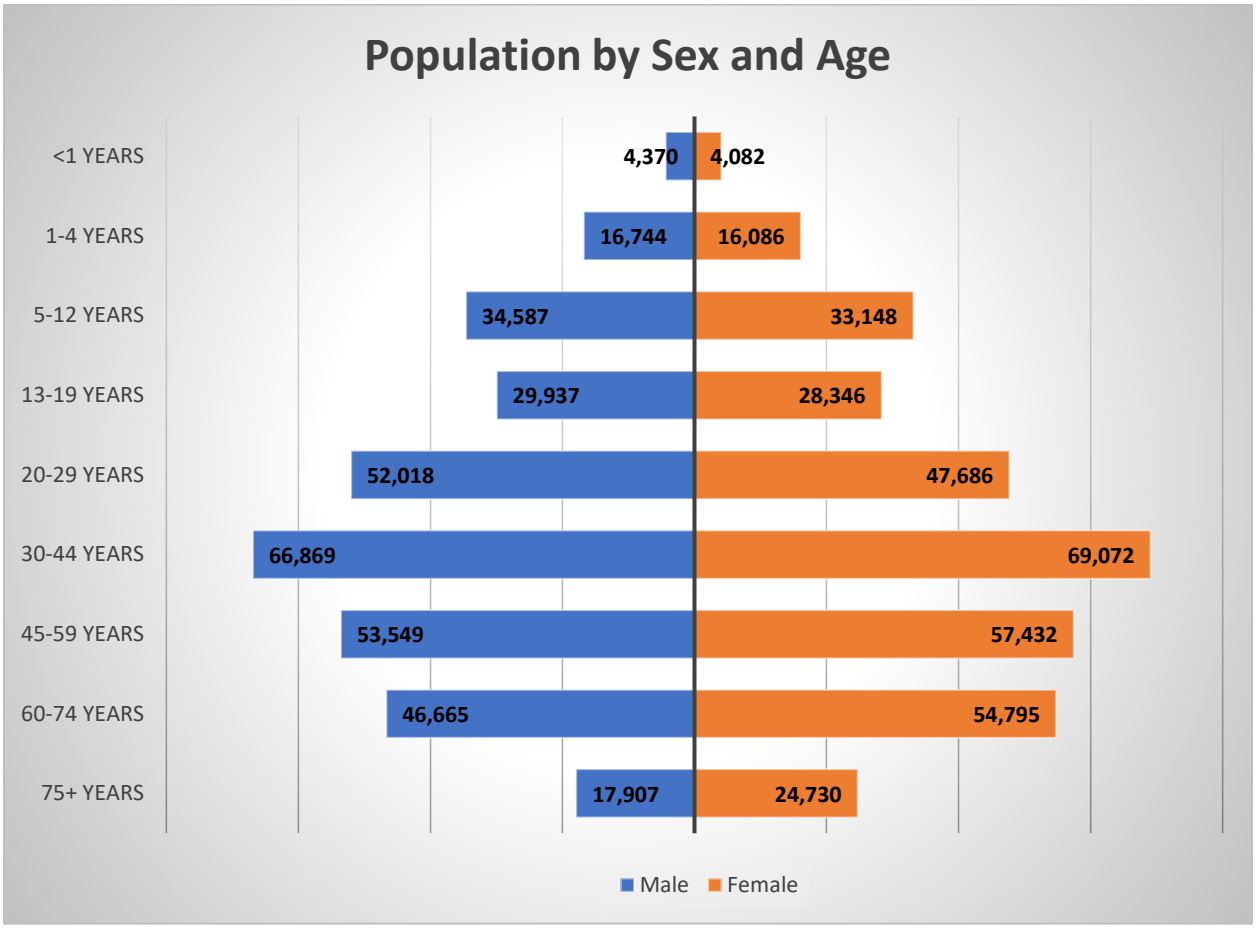


Source: OASIS

Sex

Sex in the CHD is evenly distributed between males and females, being 49% and 51%, respectively. Regarding distribution in certain age groups, there is a higher percentage of middle-aged and late-aged males and a higher percentage of early-adult females.

Figure 4: Number of Population by Sex, by Age Group, CHD, 2022

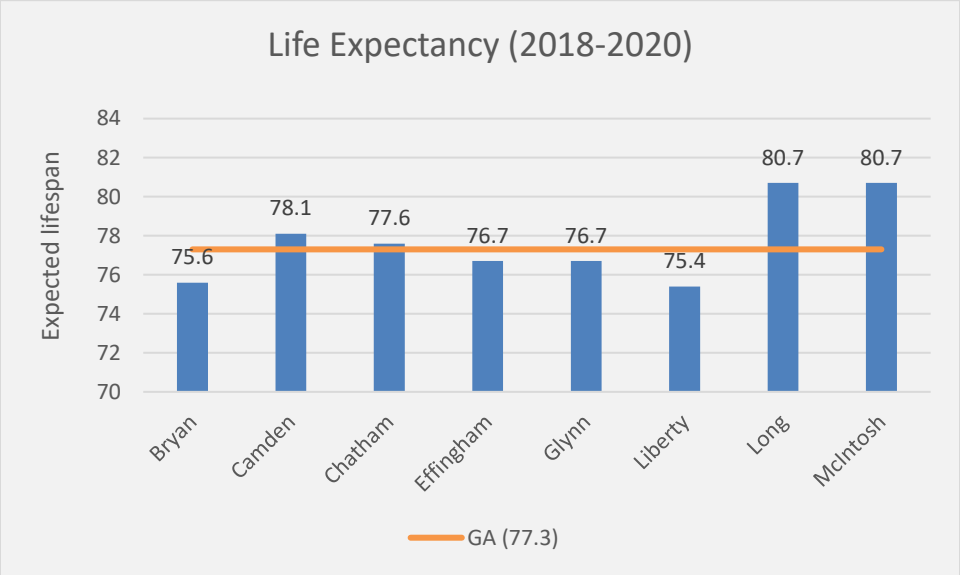


Source: OASIS

Life Expectancy

Life expectancy is a key health indicator, representing the average number of years an individual can expect to live and is often influenced by the community they live in. [5] Overall life expectancy in most CHD counties is within between 1.5–2 years of Georgia's 77.3 years. The two exceptions are Long and McIntosh County, both of which have above-average life expectancies in the low 80s.

Figure 5: Life Expectancy, by County, 2018-2020



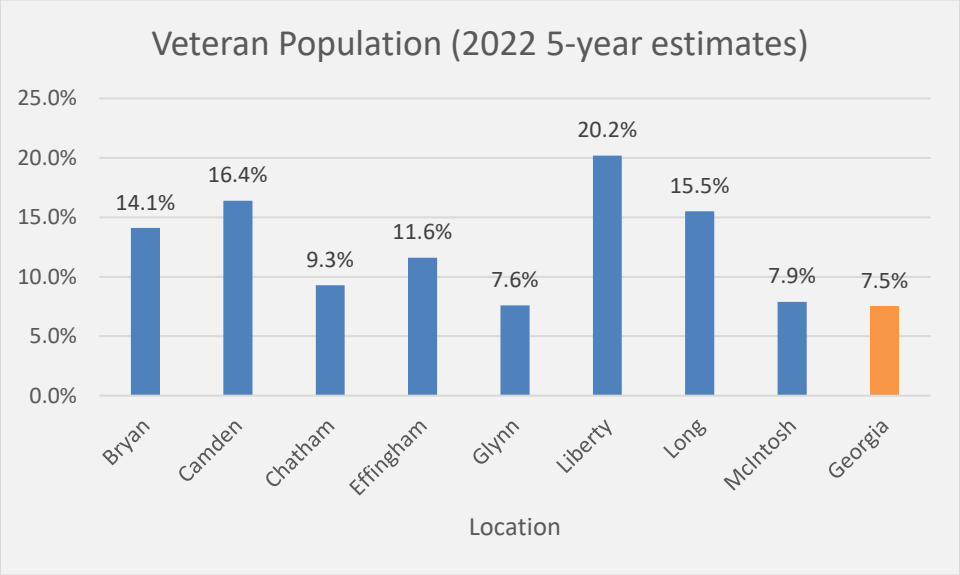
Source: County Health Rankings & Roadmaps

Veterans

Overall

According to ACS 2022 5-year estimates, the percentage of veterans in CHD counties ranged from 7.6% – 20.2%, higher than Georgia's 7.5%. Of note, Liberty, Camden, and Long Counties have the highest veteran populations, which is likely due to their proximity to Fort Stewart (Liberty & Long) and Kings Bay Army Base (Camden); conversely, Chatham County, home of Hunter Army Airfield, has the 3rd lowest veteran population in the CHD.

Figure 6: Percentage of Veterans in Total Population, by County, 2022 5-year estimates

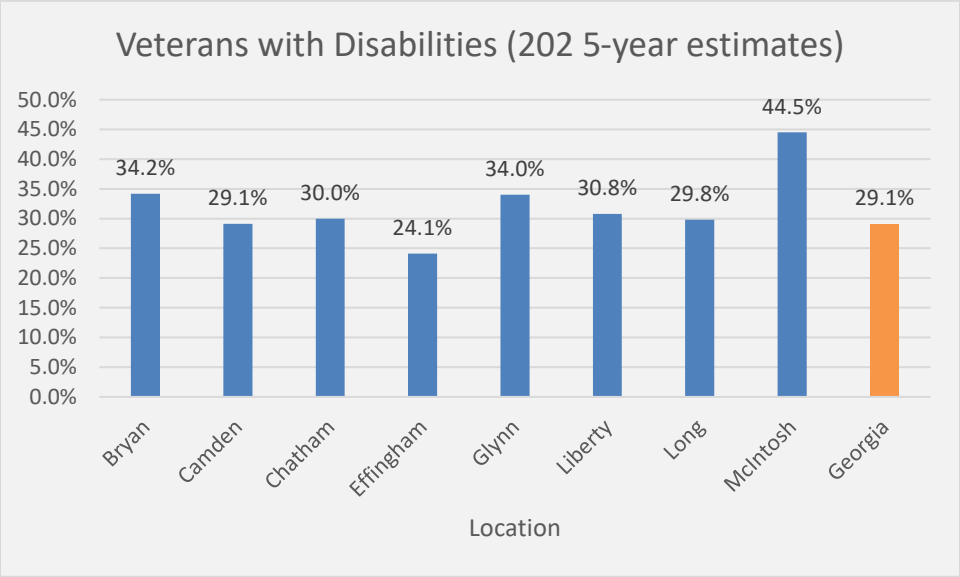


Source: American Community Survey

Veterans with Disabilities

According to ACS 2022 5-year estimates, the percentage of veterans with disabilities in CHD counties ranged from 24.1% – 44.5%, with all but Effingham County being higher than Georgia's 29.1%.

Figure 7: Percentage of Veterans with Disabilities, by County, 2022 5-year estimates

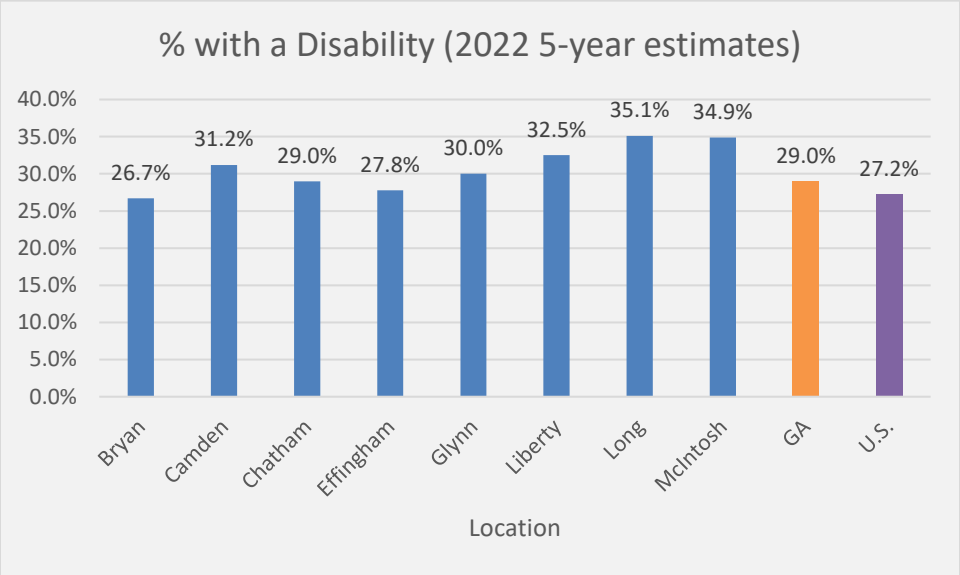


Source: American Community Survey

Disability

The percentage of people with a disability in CHD counties ranged from 26.7% – 35.1%, with 5 of the 7 counties having a higher rate than Georgia's 29.0%, and all but Bryan County having a lower rate compared to the U.S. average of 27.2%.

Figure 8: Age-Adjusted Percentage of Population with any Disability, by County, 5-year estimates



Source: CDC PLACES & BRFSS

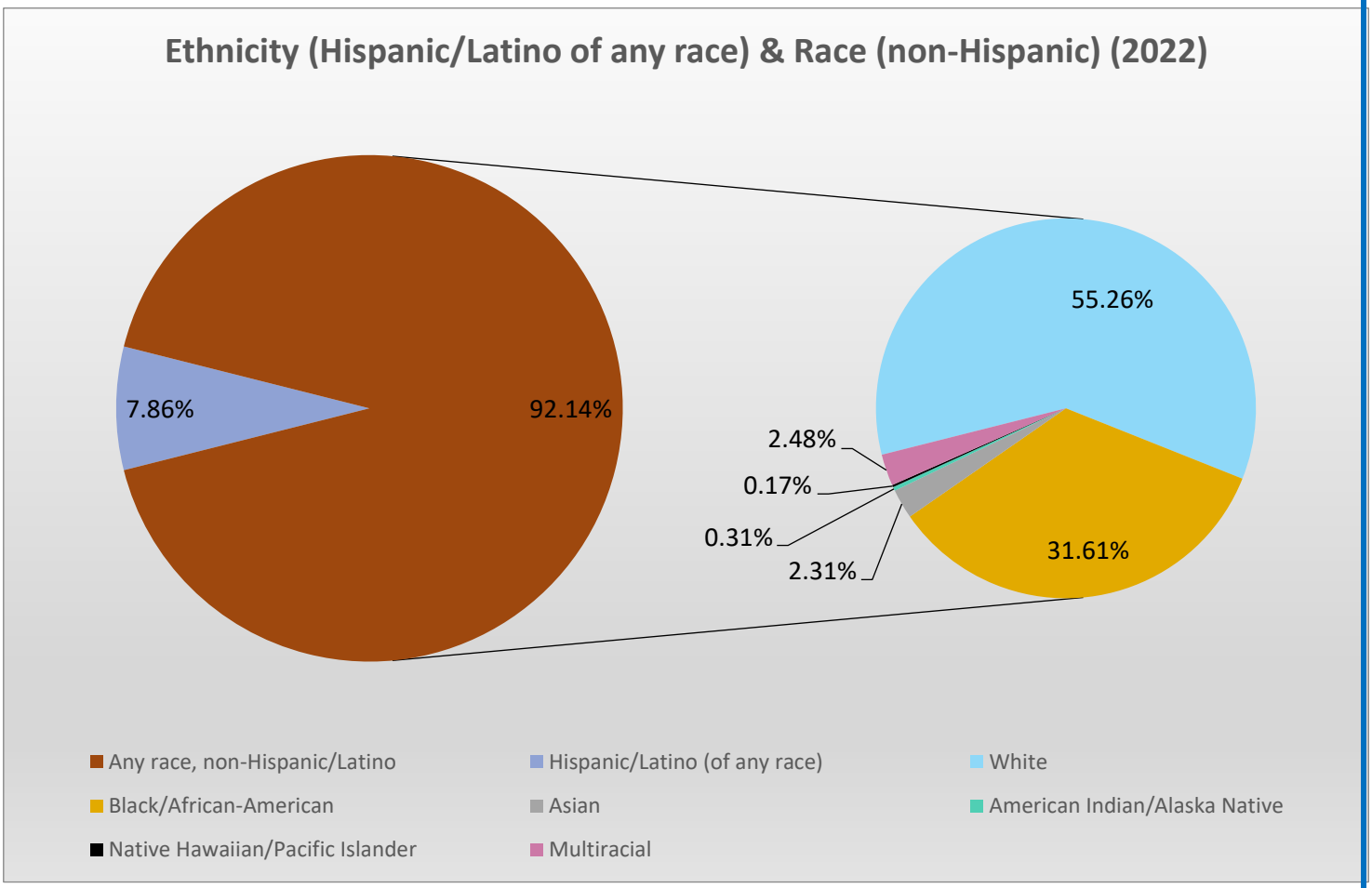
Cultural Heritage

Ethnicity & Race

When assessing the health of a community, race & ethnicity are often two of the most impactful variables to consider. Members of minority groups tend to have worse health outcomes compared to White, non-Hispanic/Latino counterparts; one example of racial inequity is minority patients not being provided with a similar level of care, which exacerbates pre-existing health issues and worsening outcomes for newer health concerns [4]. While people who identify as either White and Black/African American compose the highest racial subpopulations within the CHD, there are also many residents who identify as Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, and/ or Multiracial. Furthermore, several counties within the CHD have sizeable Hispanic/Latino communities, with the highest populations found in Liberty County and Long County at over 12% for each.

** See supplemental appendix for Georgia and CHD counties' percentage of population by race.*

Figure 9: Percent of Population by Ethnicity & Race, CHD, 2022



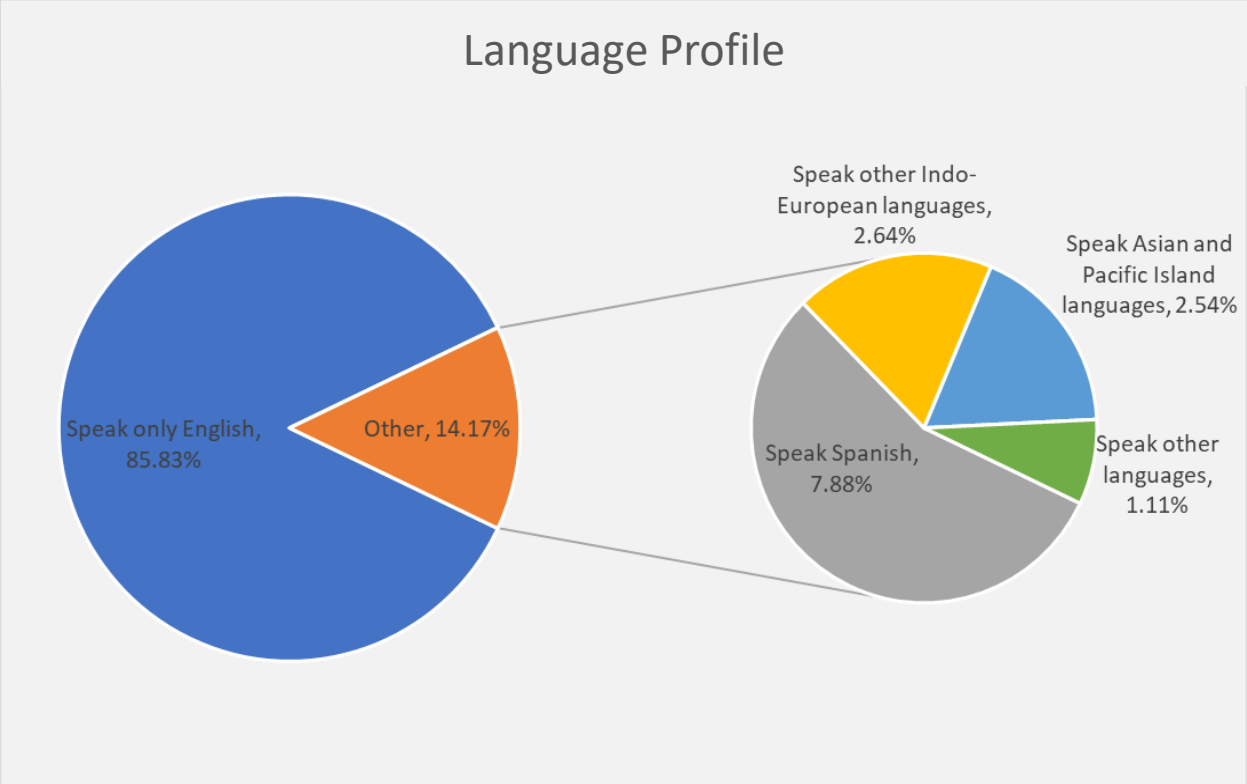
Source: OASIS

Language Profile

The language profile is a summary of the various languages spoken by residents of the Coastal Health District. This is defined using the American Community Survey indicator "Language Spoken at Home" for residents at least 5 years of age. Participants responded whether they only spoke English; or if they spoke any other language, and if so which language (divided into Spanish and language family by region). Over 85% of CHD residents only spoke English. Of the remaining 14%, over half spoke Spanish; about 1/5th spoke another Indo-European language; another 1/5th spoke an Asian or Pacific Islander language; and the remaining group spoke any other language, including African languages, Arabic, Hebrew, Native North American Languages, Hungarian, and any other unspecified language.

** See supplemental appendix for Georgia & CHD counties' individual language profiles.*

Figure 10: Percentage of Language Spoken in Household by Language Family, CHD, 2022 5-year estimates



Source: American Community Survey

Social Conditions of Health

Social conditions of health are the external circumstances that play a role in a person's life and livelihood. They are related to the community in which a person is born, grows, learns, works, plays, lives, and has a vital influence on health behaviors and outcomes. Inequity related to these conditions can include low socioeconomic status, food insecurity, inadequate housing, and lack of access to health care [6]. It is necessary to know these characteristics within a community to determine how to best address health concerns.

County Health Rankings & Roadmaps

County Health Rankings & Roadmaps (CHR&R) is a University of Wisconsin Population Health Institute program. It uses health data gathered from almost every U.S. county to assess numerous factors that influence health and then subsequently analyze equity in health and wellbeing across the country. CHR&R uses health outcomes and health factors for its ranking, with health outcomes consisting of influences related to length of life and quality of life; while health factors consist of aspects related to health behaviors, clinical care, social & economic factors, and physical environment [5].

Health Factors & Outcomes

Health factors are modifiable length and quality of life measurements. They represent how able counties are to make future changes to increase the health of their communities [5]. Health outcomes are measurements that show how healthy a county is in terms of length and quality of life [5]. All CHD 8 counties scored in the upper half of Georgia's 159 counties for health factors; all CHD counties except McIntosh scored in the upper half of Georgia's 159 counties for health outcomes.

Figure 11: Health Factors & Outcomes Rankings, by County, 2023

County	Health Factors Rank	Health Outcomes Rank
Bryan	14	13
Camden	34	22
Chatham	22	42
Effingham	23	30
Glynn	40	60
Liberty	48	61
Long	59	26
McIntosh	57	97

Source: County Health Rankings & Roadmaps

Education

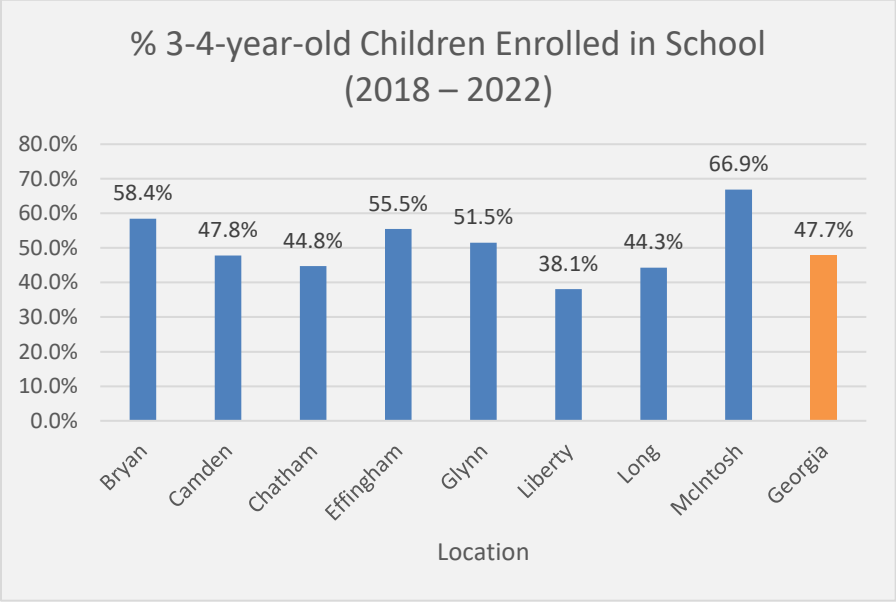
Research has shown that high levels of academic achievement (attainment of a high school diploma, bachelor's degree, and higher) are correlated with increased incomes, job opportunities, quality of health, and length of life [7]. However, this effect is not only seen at older ages. A study by Nobel Laureate James Heckman showed that children from economically-disadvantaged backgrounds who attended high-quality early childhood education programs experienced multiple later-in-life benefits, being healthier, increased likelihood of graduating high school and college, and increased earnings as adults [7].

Early Childhood Education

School Enrollment for 3–4-year-olds

According to 2018–2022 estimates from the American Community Survey (ACS) and Annie E. Casey Foundation's KIDS COUNT Data Center, the percentage of 3–4-year-olds enrolled in school in the CHD ranged from 38.1% – 66.9%, with half of the eight counties exceeding Georgia's 47.7%.

Figure 12: Percentage of School Enrollment for 3-4 year-olds, by County, 2018-2022

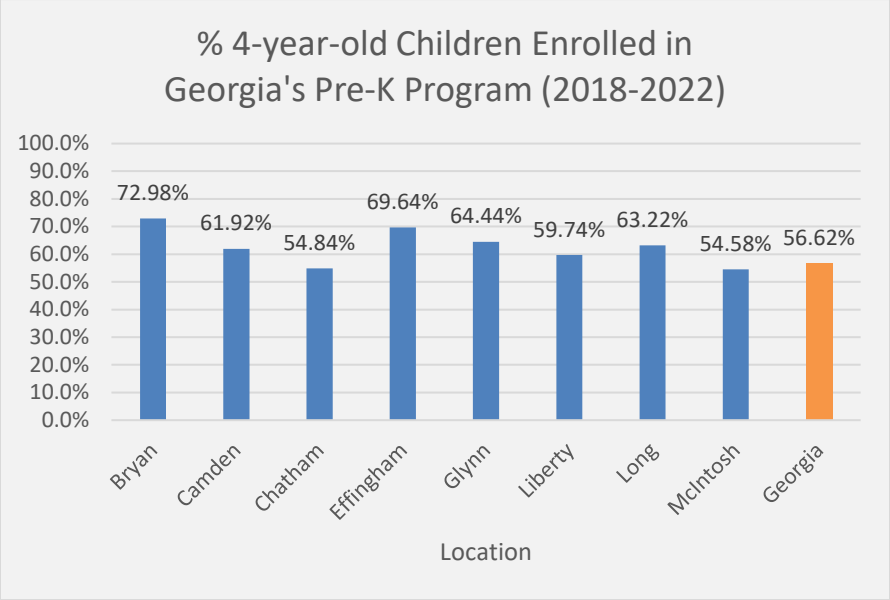


Source: American Community Survey and Annie E. Casey Foundation's KIDS COUNT Data Center

Georgia Pre-K Enrollment

At four years old, children in Georgia gain access to the Georgia Pre-K Program, which provides free education for a 180-day school year to families that apply and are accepted [8]. According to the KIDS COUNT Data Center, from 2018–2022, the average percentage of 4-year-olds in the Pre-K Program in the CHD ranged from 54.58% – 72.98%, with only Chatham and McIntosh Counties having lower enrollment than Georgia's 56.62%.

Figure 13: Percentage of Georgia Pre-K Enrollment, by County, 2018-2022



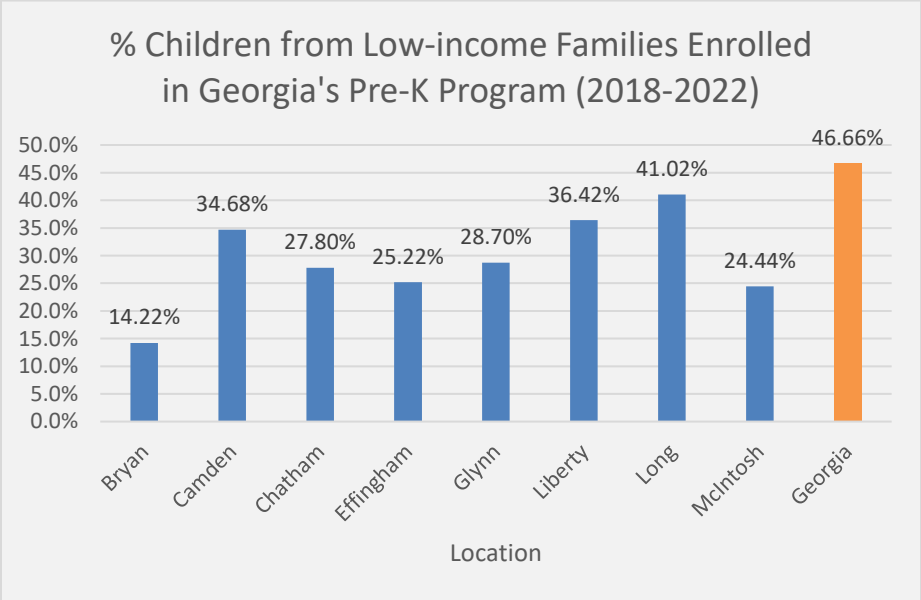
Source: Annie E. Casey Foundation's KIDS COUNT Data Center

Georgia Pre-K Enrollment for Low-Income Families

Cost is often a barrier to education, even at an early age. Only a small percentage of children from low-income families are enrolled in the Georgia Pre-K Program despite the Program being free [8]. According to the KIDS COUNT Data Center, from 2018–2022, while the Georgia statewide average is 46.66% enrollment for children from low-income families, the 8 CHD counties enrollment ranged from 41.02% down to 14.22%.

More research is needed into why these numbers are so low; however, some possibilities could be difficulties in the application process, long waitlists, county residency requirements (relative to the local school district), etc. [8]. In addition, as the Program is voluntary, parents also have the choice to have the child(ren) remain at home with a relative such as a stay-at-home parent or grandparent.

Figure 14: Percentage of Georgia Pre-K Enrollment for Low-Income Families, by County, 2018-2022



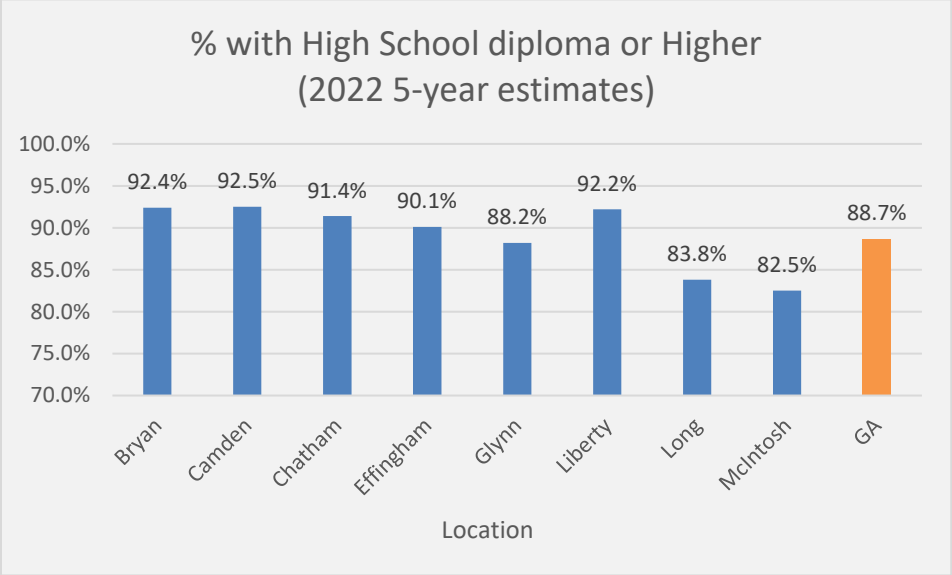
Source: Annie E. Casey Foundation's KIDS COUNT Data Center

Adult Education

High School Diploma or Equivalency

According to ACS 2022 5-year estimates of the CHD population aged 25 and older, the percentage of the population who have a High School Diploma or Equivalent (or higher) ranged from 82.5% to 92.5%, with Glynn, Long, & McIntosh Counties having a lower percentage than Georgia's 88.7%.

Figure 15: Percentage with High School Diploma or Equivalency, aged 15 and older, by County, 2022 5-year estimates

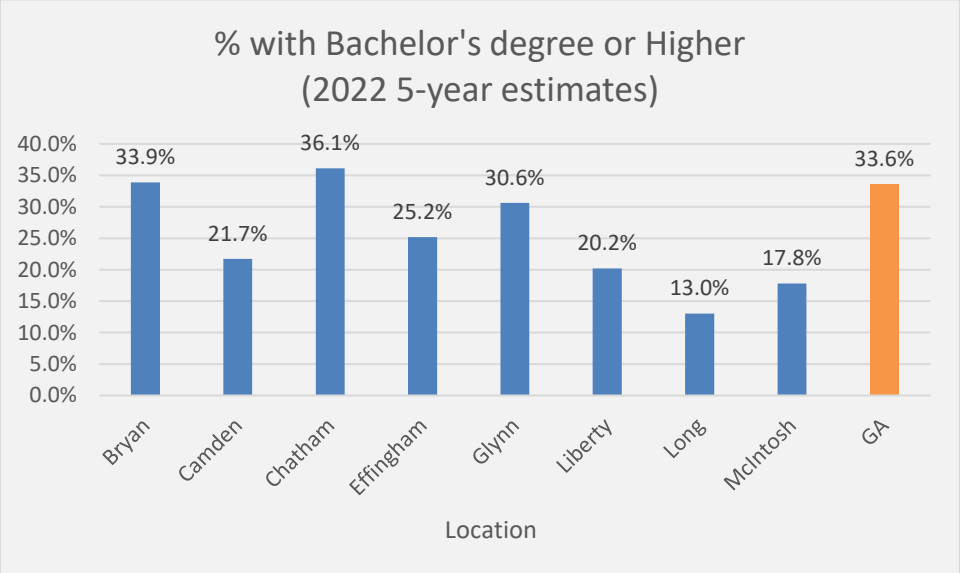


Source: American Community Survey

Bachelor's Degree

According to ACS 2022 5-year estimates, of the CHD population aged 25 and older, the percentage of the population who have a bachelor's degree (or higher) ranged from 13.0% to 36.1%, with only Bryan County and Chatham County having higher percentages than Georgia's 33.6%.

Figure 16: Percentage with Bachelor's Degree, aged 25 and older, by County, 2022 5-year estimates



Source: American Community Survey

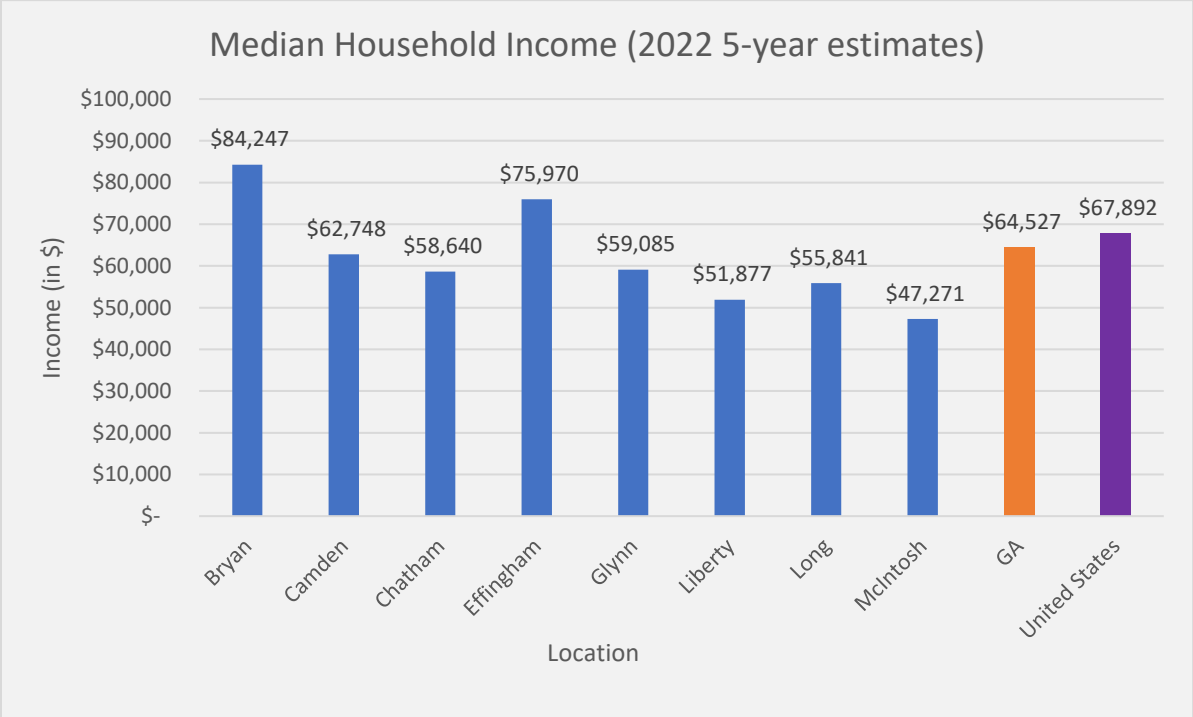
Economic Circumstances

Income and poverty of a community are crucial to assess as they are associated with poor health outcomes such as being unable to afford healthy food options, prescription medication & other healthcare services, and safe housing [9]. The health effects from poor nutrition and lack of chronic disease preventative & management services create a ripple effect, increasing the likelihood of death from preventable diseases [10].

Income

Median household income in the majority of CHD counties ranged from the high $40,000s to the low $60,000s. With median household incomes in the low $80,000s and low $70,000s, respectively, Bryan and Effingham Counties are the only two counties in the district that have a median household income higher than either Georgia's $64,527 or the United States $67,892.

Figure 17: Median Household Income, by County, 2022 5-year estimates



Source: American Community Survey

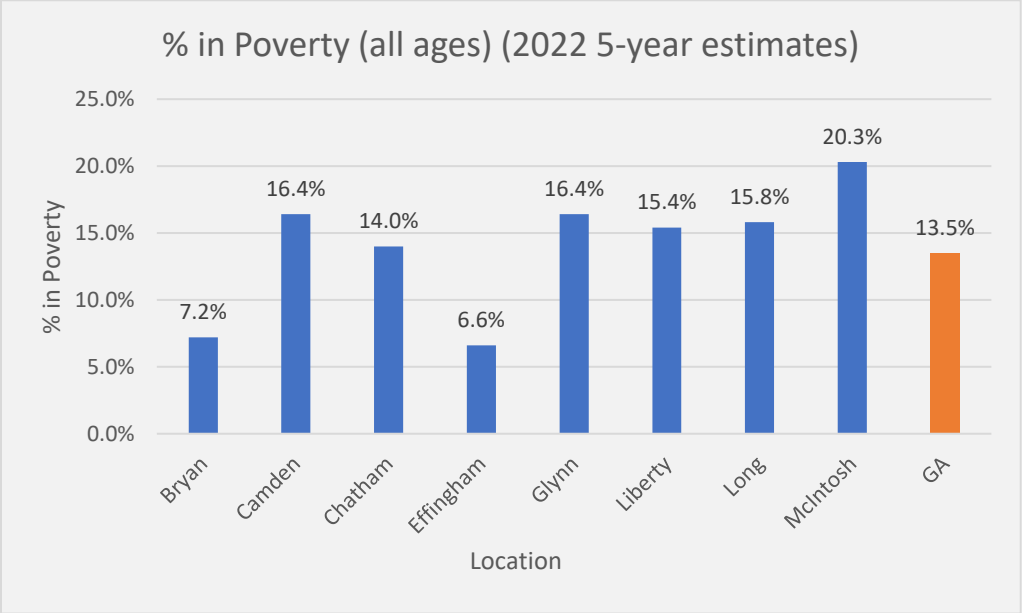
Poverty

Poverty: All Ages

U.S. Census Bureau poverty thresholds are separate from HHS poverty guidelines, which are used to determine eligibility for federal programs based on being at a certain percentage (125%, 150%, 185%, etc.) of the poverty guideline. [11] Programs that use the poverty guidelines are Head Start, the Children's Health Insurance Program, SNAP, WIC, Job Corps, Community Health Centers/ Federally Qualified Health Centers (FQHCs), and more [11]. The Census Bureau's poverty thresholds are most similar to HHS's 100% poverty guidelines [12] [13].

When examining the pattern of overall poverty compared to income, the two indicators are often inverse of each other, meaning locations with a lower median income tended to have higher levels of poverty and vice versa. To that point, according to the 2022 ACS 5-year estimates, Bryan County and Effingham County had the lowest percentage of the population in poverty and are the only locations below Georgia's 13.5%.

Figure 18: Percentage in Poverty, All Ages, by County, 2022 5-year estimates

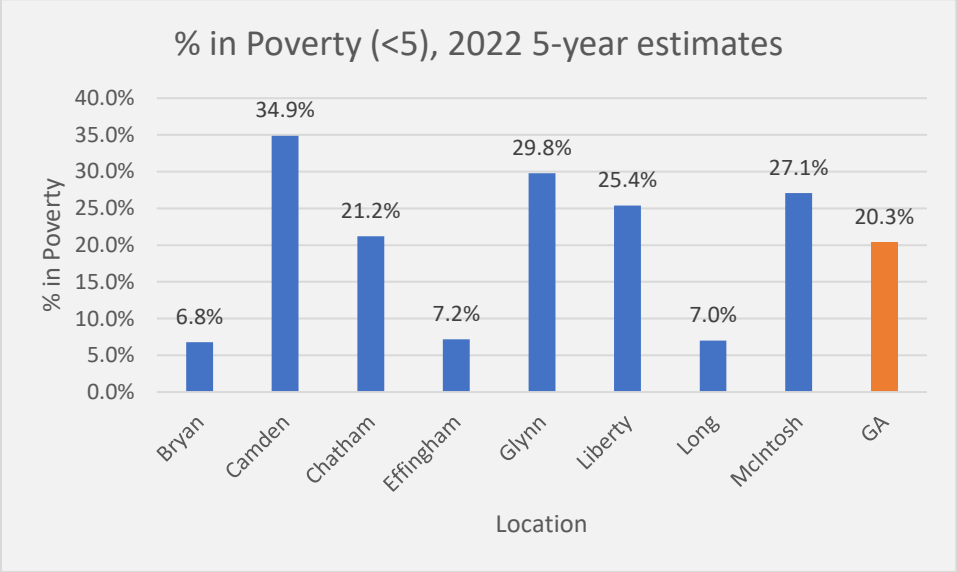


Source: American Community Survey

Poverty: Under 5

According to the 2022 ACS 5-year estimates, Bryan, Effingham, and Long Counties were the only locations below Georgia statewide estimates of 20.3% for children less than five. Also of note, the percentage of children in poverty was about 1.5 times higher in Camden County and McIntosh County for children under 5 compared to Georgia's average.

Figure 19: Poverty under 5 years of age, by County, 2022 5-year estimates

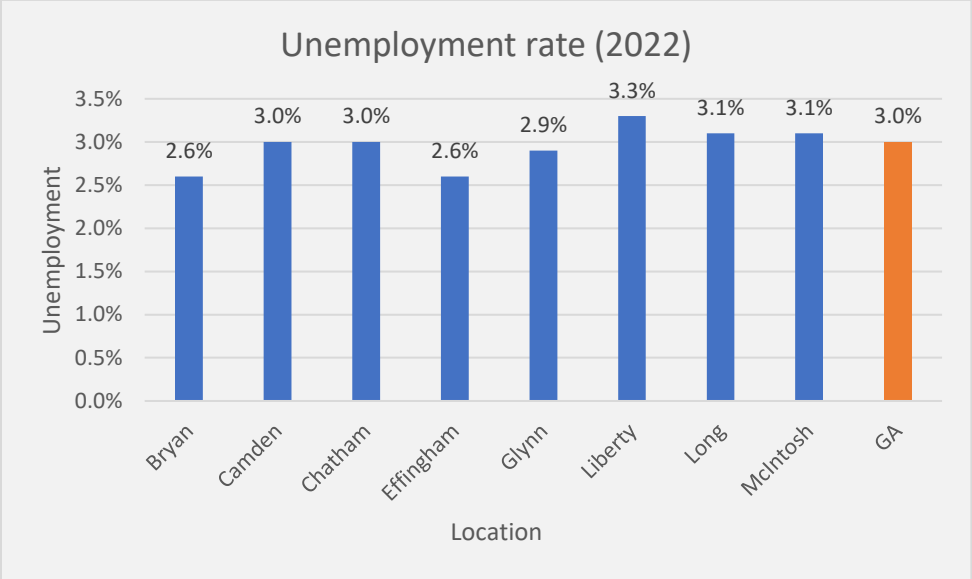


Source: American Community Survey

Unemployment

According to Local Area Unemployment Statistics obtained from the U.S. Bureau of Labor Statistics, CHD's unemployment rate in 2022 is similar throughout all 8 counties and to Georgia's, ranging from 2.6% – 3.3% in the counties compared to 3.0% for Georgia's average [14].

Figure 20: Unemployment Rate, by County, 2022

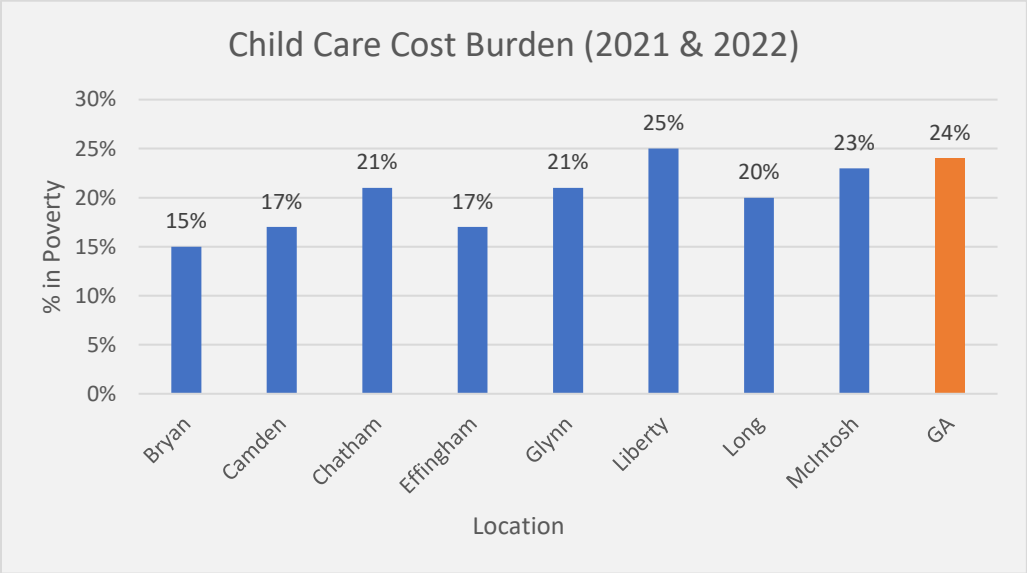


Source: U.S. Bureau of Labor Statistics

Child Care Cost Burden

Child care cost burden is the average percentage of household income spent on child care for two children [15]. Having a high percentage of income spent on child care expenses often means that less is available for other needs such as rent & bills, medical expenses, nutritious food, and transportation [15]. In 2021 and 2022, Child Care Cost Burden in the CHD ranged from 15% – 25%, with only Liberty County exceeding Georgia's 24%.

Figure 21: Percent of Household Income spent on Child Care, by County, 2021 & 2022



Source: County Health Rankings & Roadmaps

Access to Care

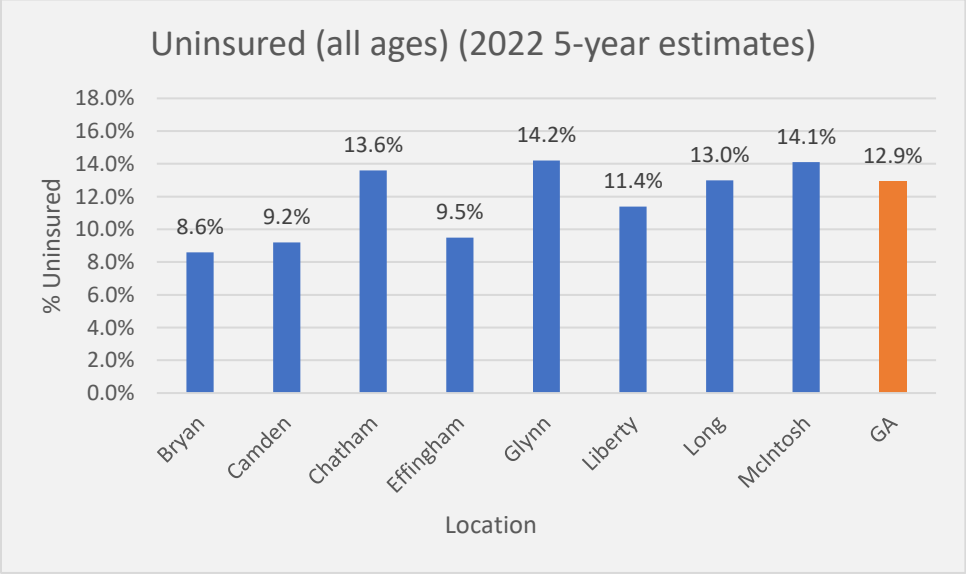
Access to care assesses the difficulty in which people in a community have when it comes to obtaining adequate health care [16]. Lack of access to quality healthcare, either due to cost or availability of services, often results in people not being able to receive proper medical treatment, leading to worsened health outcomes such as increased rates of chronic diseases due to lack of preventative care [16]. Access to care was assessed by measuring the percentage of the population without insurance, as well as examining patient:provider ratios.

Uninsured

Lacking health insurance coverage can prevent people from seeking medical care because they are unable to afford the out-of-pocket costs [16]. According to ACS 2022 5-year estimates, the percentage of people without health insurance in CHD ranged from 8.6%-14.2%, similar to Georgia's 12.9%.

However, it is important to note that this data does not take into consideration people who are underinsured, meaning individuals who have health insurance but do not have access to certain services such as vaccinations and cancer screenings (mammograms, etc.) due to high costs or only being able to visit select providers (such as FQHCs or free clinics) [17] [18].

Figure 22: Percentage Uninsured, All Ages, by County, 2022 5-year estimates



Source: American Community Survey

Provider Ratios

Provider ratios give the ratio of the population per one healthcare provider [15]. This assessment looks at provider ratios for primary care, mental health, and dentistry. A primary care physician provider ratio was not available for McIntosh County, and a dentist provider ratio was not available for Long County. Overall, the lowest (best) provider ratios tended to be in Chatham and Liberty County. However, as provider ratios vary greatly among CHD counties, it is difficult to do a district-wide comparison to state ratios.

Figure 23: CHD Provider Ratios, by County, various years

County	Primary Care Physician Ratio (2020)	Other Primary Care Provider Ratio (2022)	Dentist Provider Ratios (2021)	Mental Health Provider Ratios (2022)
Bryan	1,510:1	1,300:1	3,610:1	1,000:1
Camden	3,460:1	1,160:1	2,930:1	730:1
Chatham	1,070:1	520:1	1,460:1	520:1
Effingham	4,700:1	2,020:1	5,560:1	2,090:1
Glynn	1,860:1	840:1	1,880:1	690:1
Liberty	3,320:1	320:1	760:1	250:1
Long	20,170:1	3,430:1	N/A	3,430:1
McIntosh	N/A	2,220:1	3,710:1	480:1
GA	1,490:1	770:1	1,880:1	600:1

Source: County Health Rankings & Roadmaps

Family & Social Environment

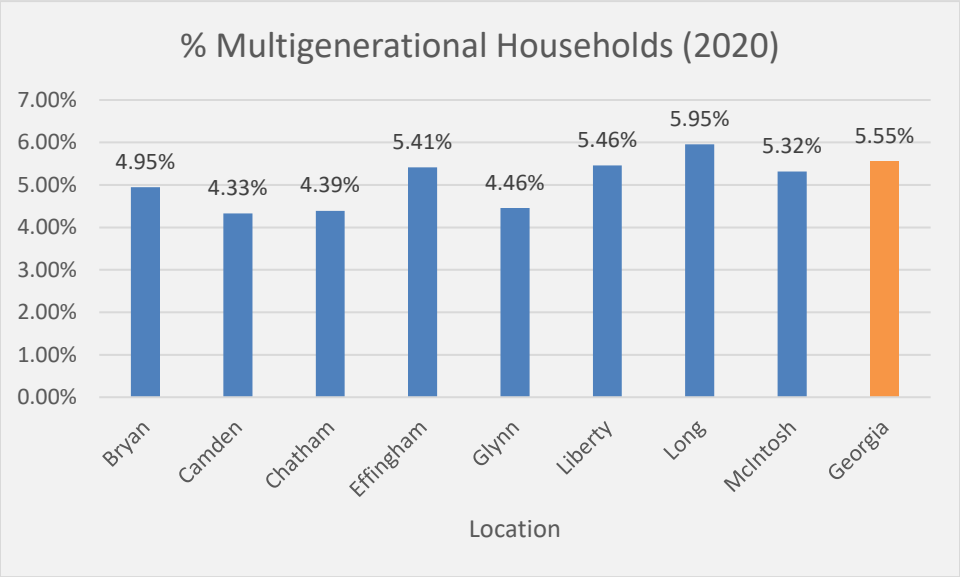
Social support through family and community provides an opportunity to overcome challenges and thrive in life. The building blocks from this foundation include values and connections that "that prioritize community, family, and parent leadership" and other local support systems that bring people together to serve and provide opportunities that benefit their community [7]. Some of the positive impacts of this social connectedness are safer neighborhoods, reduced social & racial inequities, and increased accessibility to supportive services and programs [19].

Family Composition

Multigenerational Households

Multigeneration households are any residence with three or more generations residing under one roof, with at least one person related to the householder by birth, marriage, or adoption [20]. According to Census 2020 estimates, the percentage of multigenerational households in CHD counties ranged from 4.33% – 5.95%, with only Long County being higher than Georgia's 5.55%.

Figure 24: Percentage of Multigenerational Households, by County, 2020

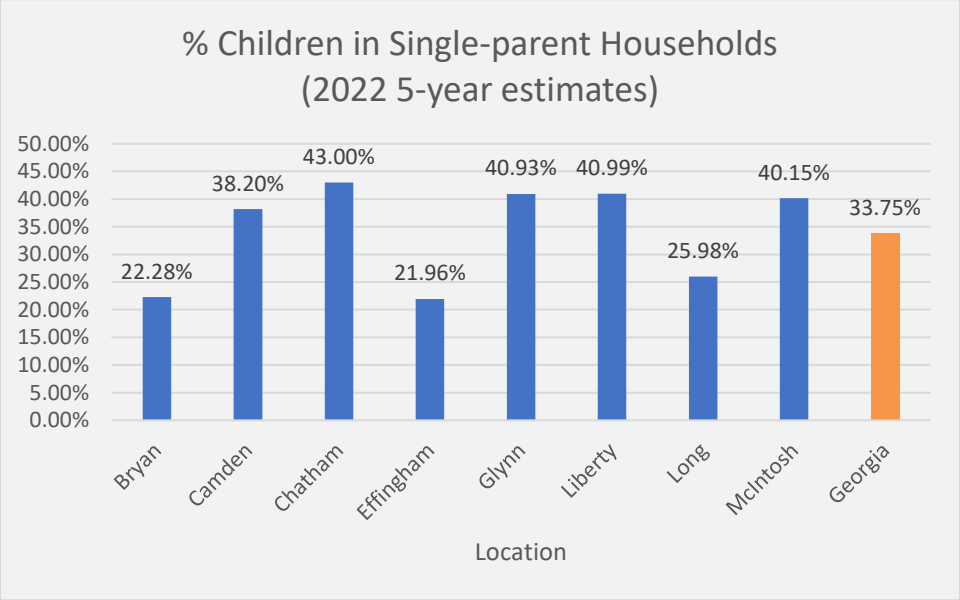


Source: U.S. Census

Single-Parent Households

Single-parent households are defined as any family with one parent in residence along with at least one child under the age of 17 [21]. According to ACS 2022 5-year estimates, the percentage of multigenerational households in CHD counties ranged from 21.96% – 43.00%, similar to Georgia's 33.75%.

Figure 25: Percentage of Single-Parent Households, by County, 2022 5-year estimates

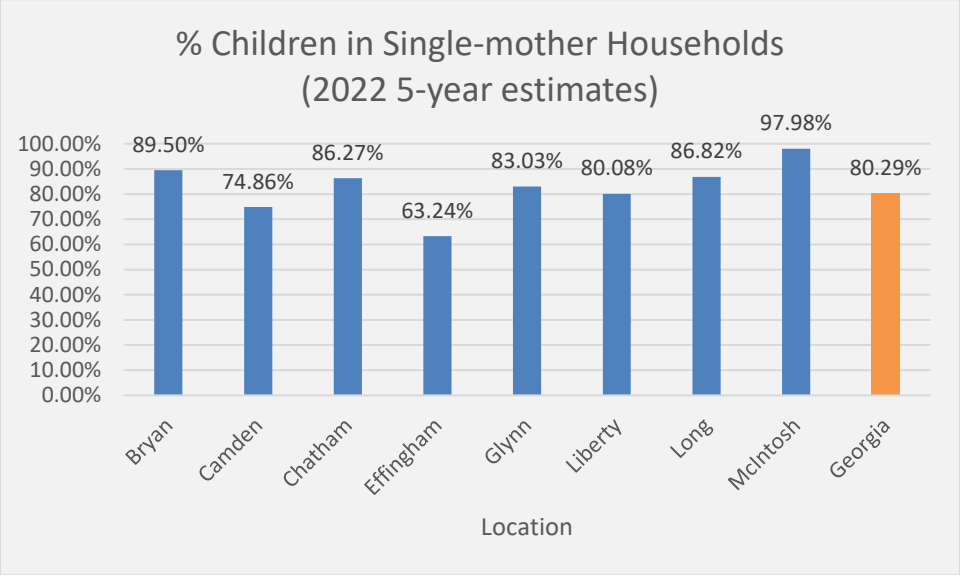


Source: American Community Survey

Single-Mother Households

According to ACS 2022 5-year estimates, the majority of single-parent households are led by single mothers, ranging from 63.24% – 97.98% of single-parent households, similar to Georgia's 80.29%.

Figure 26: Percentage of Single-Mother Households, by County, 2022 5-year estimates



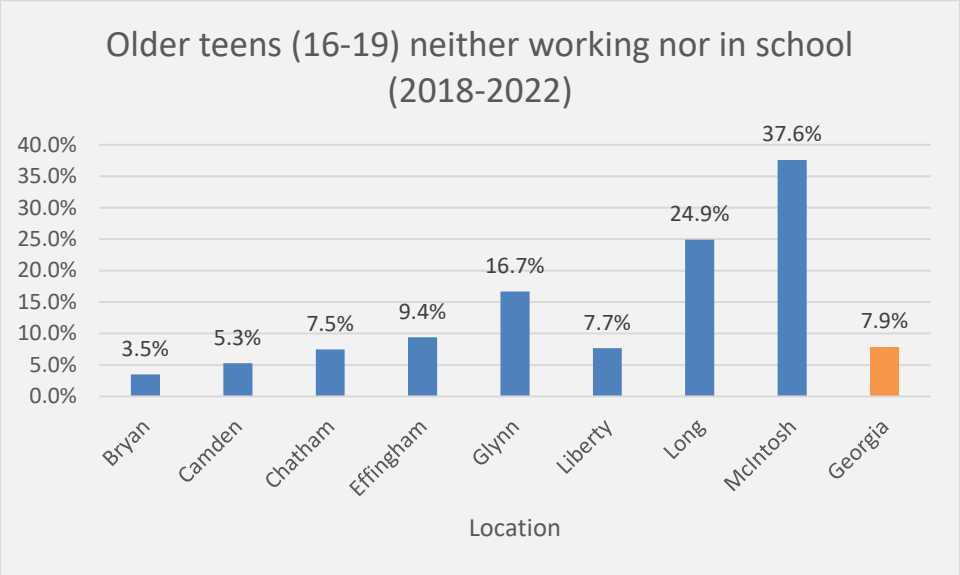
Source: American Community Survey

Community Context

Idle Teens

Idle teens are defined as teenagers aged 16 – 19 who are not enrolled in school, employed, or enrolled in the Armed Forces [22]. According to ACS and the KIDS COUNT Data Center, the percentage of idle teens in the population ranged significantly from 3.5% – 37.6%, with only Glynn, Long, and McIntosh Counties significantly higher than Georgia's 7.9%.

Figure 27: Percentage of Idle Teens (not in school & not working), aged 16-19, by County, 2018-2022

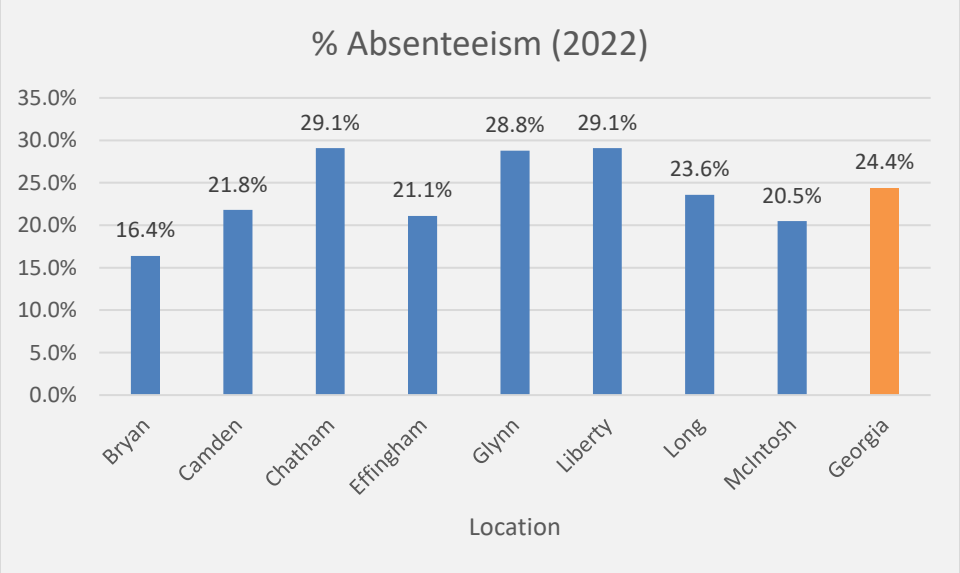


Source: Annie E. Casey Foundation's KIDS COUNT Data Center

Absenteeism

Absenteeism is defined as any student absent from school for more than 15 days of the school year [23]. According to the KIDS COUNT Data Center, in 2022, absenteeism across the CHD counties varied from 16.4% – 29.1%, with Chatham, Glynn, and Liberty Counties all higher than Georgia's 24.4%.

Figure 28: Percentage of Students Absent for More Than 15 Days from School (non-consecutive), by County, 2022

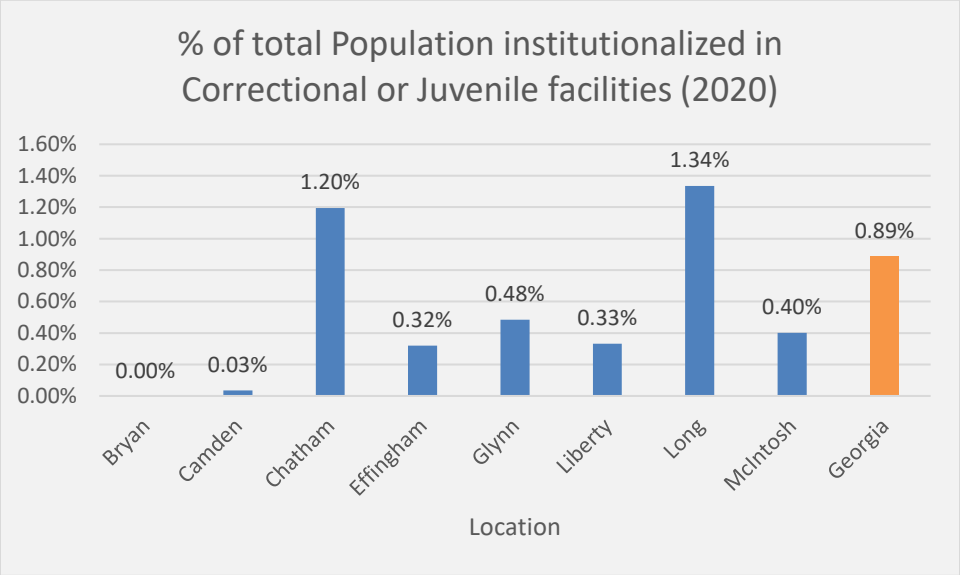


Source: Annie E. Casey Foundation's KIDS COUNT Data Center

Group Quarters Facilities

The U.S. Census Bureau defines a group quarters facility as "a place where people live or stay that is normally owned or managed by an entity or organization providing housing and/or services for the residents…[including]…custodial or medical care, as well as other types of assistance". Using Decennial Census 2020 data, the percentage of the overall population institutionalized in either an adult correctional facility (prison, jail, corrections, etc.) or in a juvenile facility (such as a group home, residential treatment center, correctional facility, etc.) [24] ranged from 0.00% – 1.34%, with only Chatham County and Long County higher than Georgia's 0.89%.

Figure 29: Percentage of Total Population Institutionalized in Correctional or Juvenile facilities, by County, 2020



Source: American Community Survey

Neighborhood Assessment

Neighborhood assessment is an evaluation of how the "places where people are born, live, learn, work, play, worship, and age" affect a person's health and well-being. A person's residence has a significant influence on the quality, availability, & accessibility of resources within the area in which they live, both positive and negative. These include transportation barriers (no personal vehicle or far distances to food/parks); access to computers and reliable internet service (telehealth appointments); food insecurity & hunger; and safe & affordable housing.

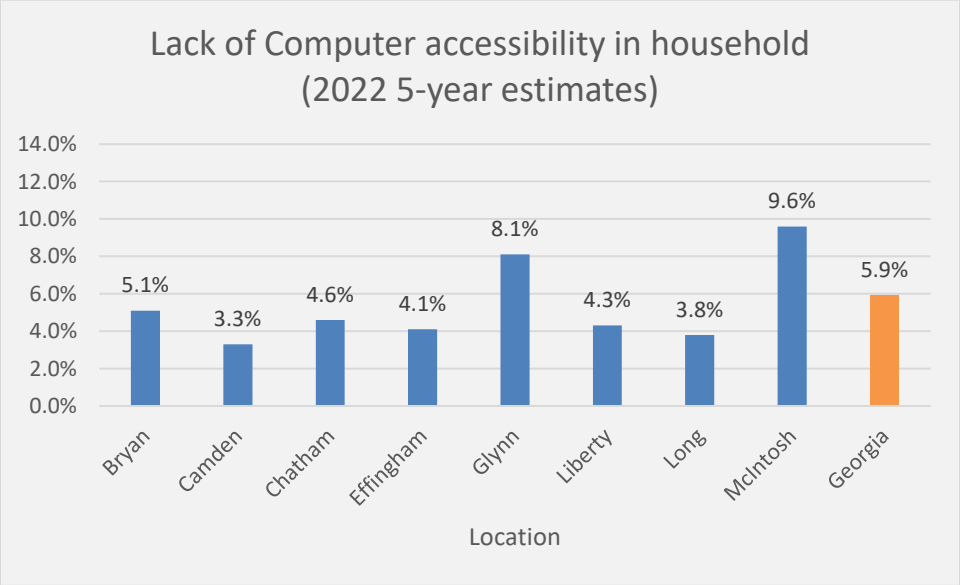
Computer & Internet Accessibility

In an increasingly digital world, lack of access to technological devices and reliable internet is often associated with reduced economic opportunities, as well as diminished options for education, employment, and healthcare [15].

Lack of Computer Accessibility

According to ACS 2022 5-year estimates, the percentage of households in CHD counties lacking any type of computer/smart device (smartphone, tablet, etc.) ranged from 3.3% – 9.6%, with both Glynn and McIntosh Counties' lack of accessibility being higher (worse) than Georgia's 5.9%.

Figure 30: Lack of Household Computer Accessibility, by County, 2022 5-year estimates

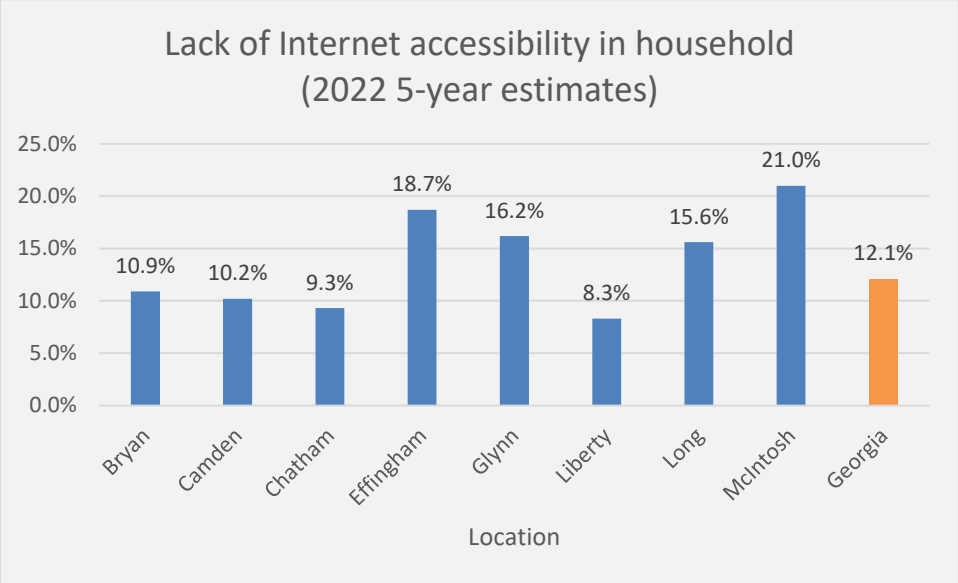


Source: American Community Survey

Lack of Internet Accessibility

According to ACS 2022 5-year estimates, the percentage of households in CHD counties without any type of internet subscription ranged from 8.3% – 21.0%, with both Effingham and McIntosh Counties' lack of accessibility being over 1.5 times higher (worse) than Georgia's 12.1%.

Figure 31: Lack of Household Internet Accessibility, by County, 2022 5-year estimates



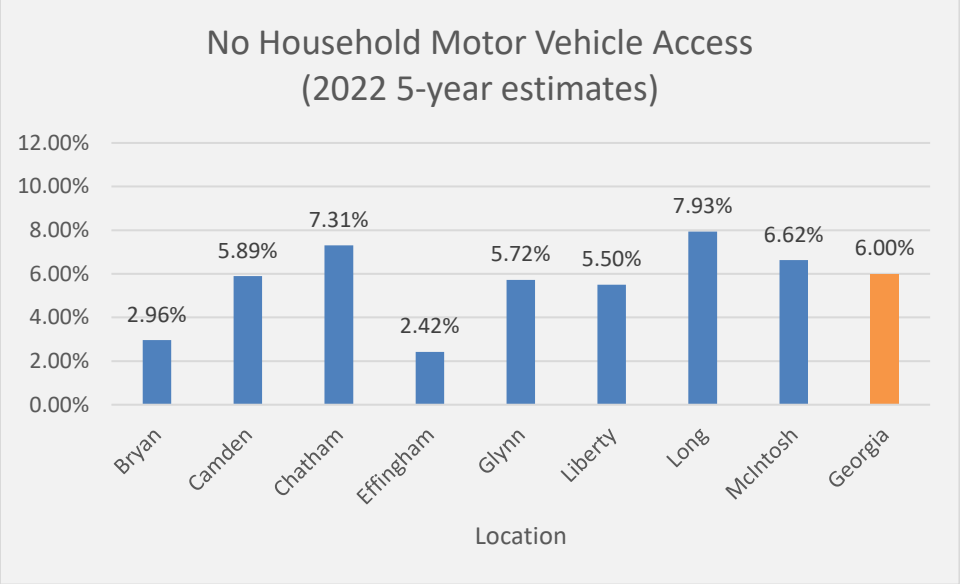
Source: American Community Survey

Motor Vehicle Access

While there are many ways for a person to commute daily, such as public transportation (bus, train, etc.), biking, or even by foot; however, the main method for many is via a motor vehicle (i.e., a car). Lacking access to a personal vehicle is a barrier to accessing healthcare, pharmacies, grocery stores, etc., for both the drivers themselves, as well as any member of their household [25] [26].

According to ACS 2022 5-year estimates, the percentage of households in CHD counties lacking access to a motor vehicle from 2.42% – 7.93%, with Long, Chatham, and McIntosh Counties all worse than Georgia's 6.00%.

Figure 32: Percentage of Household with No Motor Vehicle Access, by County, 2022 5-year estimates



Source: American Community Survey

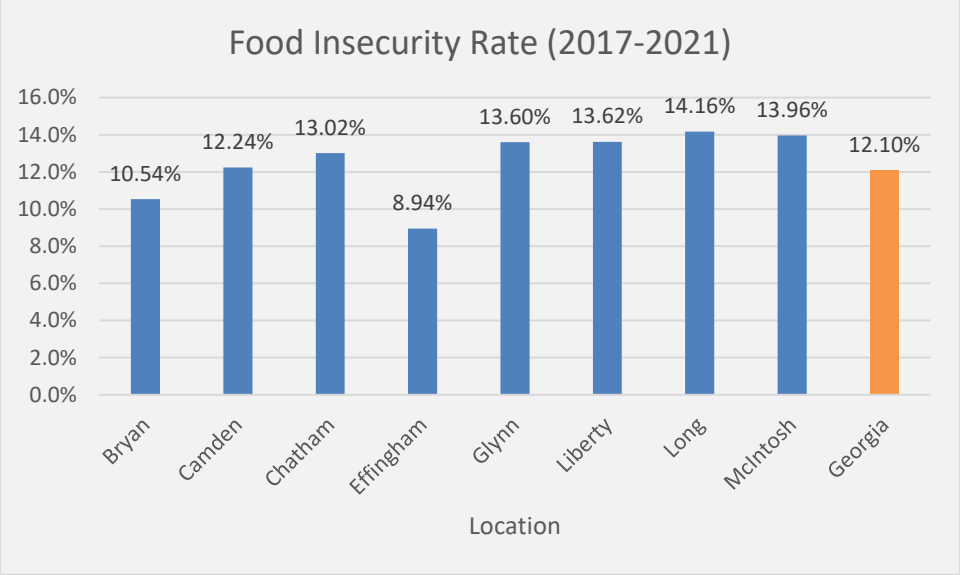
Food Insecurity

The U.S. Department of Agriculture (USDA) defines food insecurity as limited or uncertain access to enough food for an active, healthy life [27]. This can range from "reports of reduced quality, variety, or desirability of diet" to multiple instances of "disrupted eating patterns and reduced food intake" [27].

Food Insecurity Rate

According to Feeding America 2017-2021 estimates, the food insecurity rate in the CHD ranged from 8.94% – 14.16%, with only Bryan County and Effingham County lower (better) than Georgia's 12.10%.

Figure 33: Percentage of Total Population that is Food Insecure, by County, 2017-2021



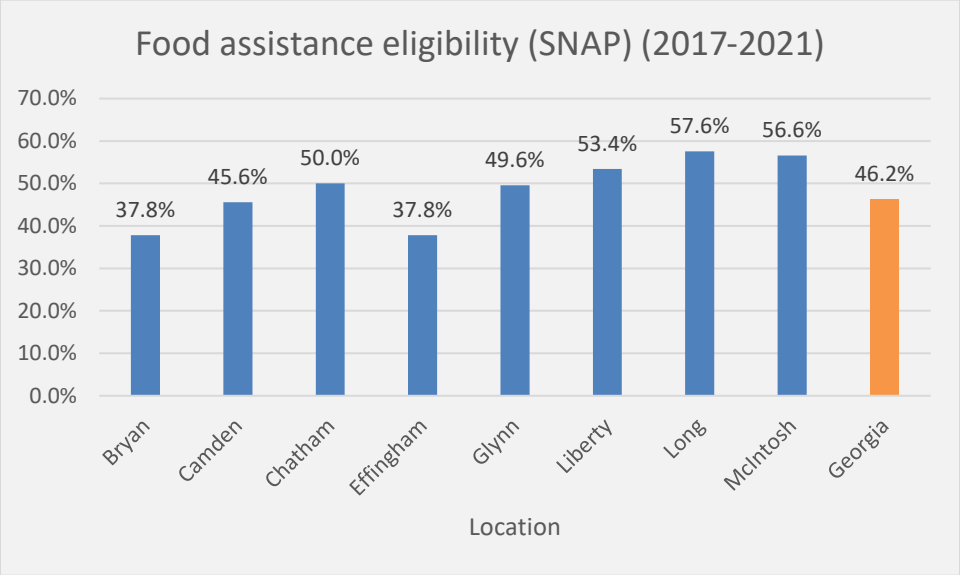
Source: Feeding America

Eligibility for Food Assistance (SNAP/Food Stamps)

For this data, eligibility for food assistance will be defined as being at or below 130% of the federal poverty line [28]. This is the federal threshold for SNAP; however, other programs have higher thresholds, such as WIC which is at or below 185% poverty [28].

According to Feeding America 2017-2021 estimates, the percentage of individuals eligible for SNAP in the CHD ranged from 37.8% – 57.6%, again with only Bryan County and Effingham County, along with Chatham County, lower (better) than Georgia's 46.2%.

Figure 34: Percentage of Population Eligible for Food Assistance (below SNAP threshold), by County, 2017-2021



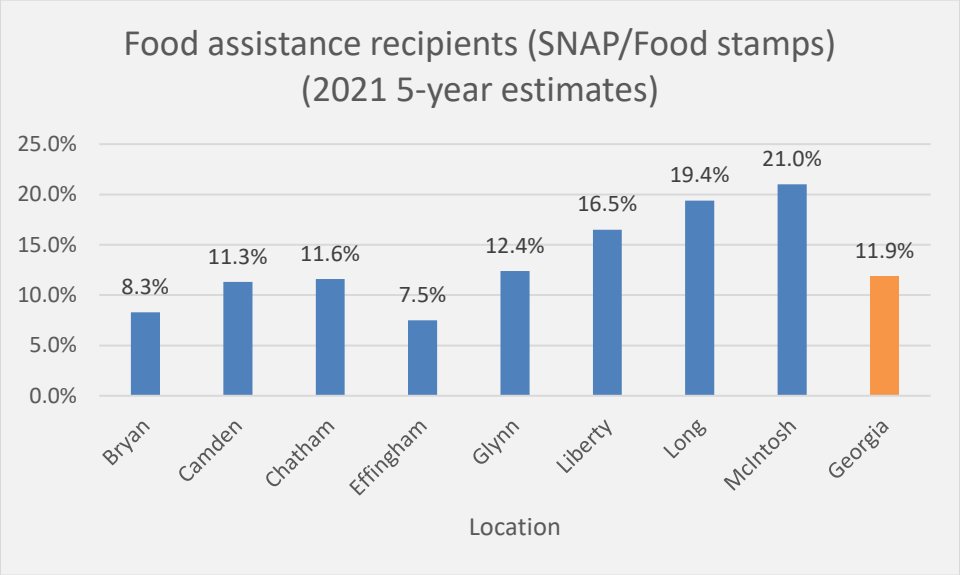
Source: Feeding America

Food Assistance Recipients

While between 33.3% to 50% of the population qualifies for nutrition assistance programs based on their income status, only a small percentage of individuals receive said assistance.

According to ACS 2021 5-year estimates, the percentage of individuals receiving SNAP/Food Stamps in the CHD ranged from 7.5% – 21.0%, with Long and McIntosh Counties nearly double Georgia's average of 11.9%.

Figure 35: Percentage of Food Assistance (SNAP/Food Stamps) Recipients, by County, 2021 5-year estimates

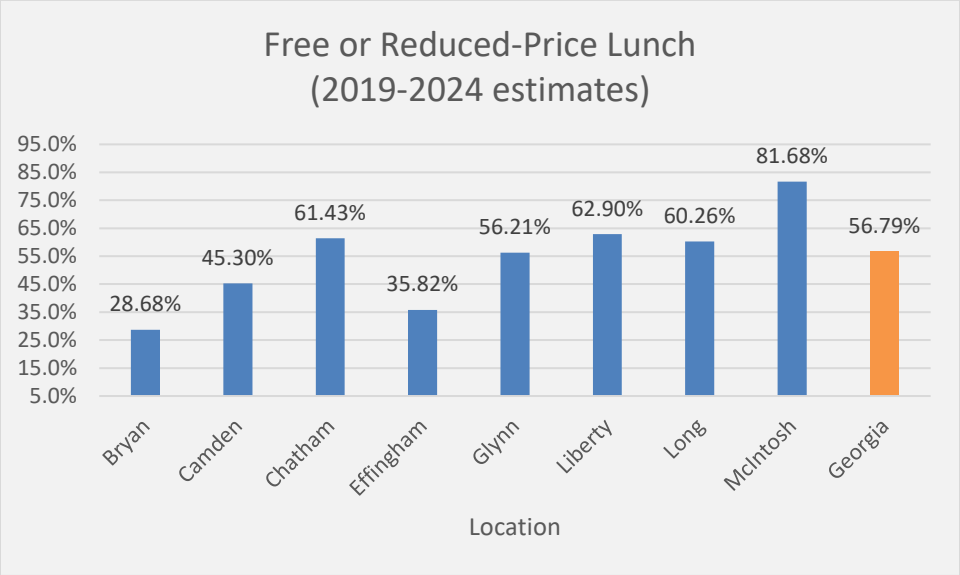


Source: American Community Survey

Free or Reduced-Price Lunch Eligibility

According to the Georgia Department of Education, the FY20 – FY24 (10/2019 – 09/2024) estimates for the average percentage of students eligible for free or reduced-lunch in CHD counties ranged from 28.68% – 81.68% compared to Georgia's statewide average of 56.79% [29].

Figure 36: Percentage of Students Eligible for Free or Reduced-Price Lunch, by County, 2019-2024 estimates



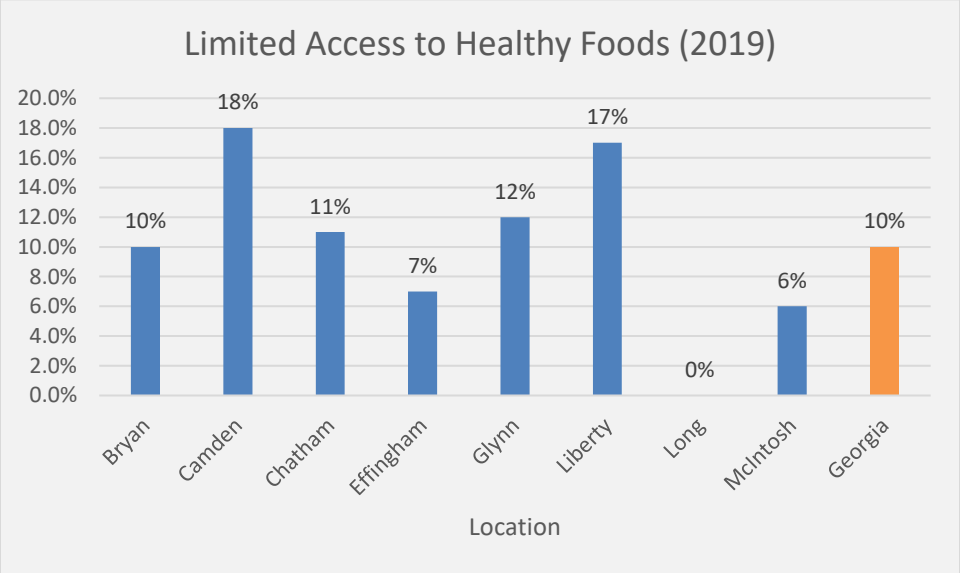
Source: Georgia Department of Education

Limited Access to Healthy Foods

Limited access to healthy foods is defined as individuals who are both low-income and do not live within proximity to a grocery store [15]. For non-rural residents, proximity means living less than 1 mile from a grocery store; for rural residents, it means living less than 10 miles from the nearest grocery store [15].

According to CHR&R 2023 estimates, the percentage of individuals with limited access to healthy foods ranged from 0% – 18%, with Camden County and Liberty County nearly double Georgia's average of 10%.

Figure 37: Percentage of Population with Limited Access to Healthy Foods, by County, 2019



Source: County Health Rankings & Roadmaps

Access to Exercise Opportunities

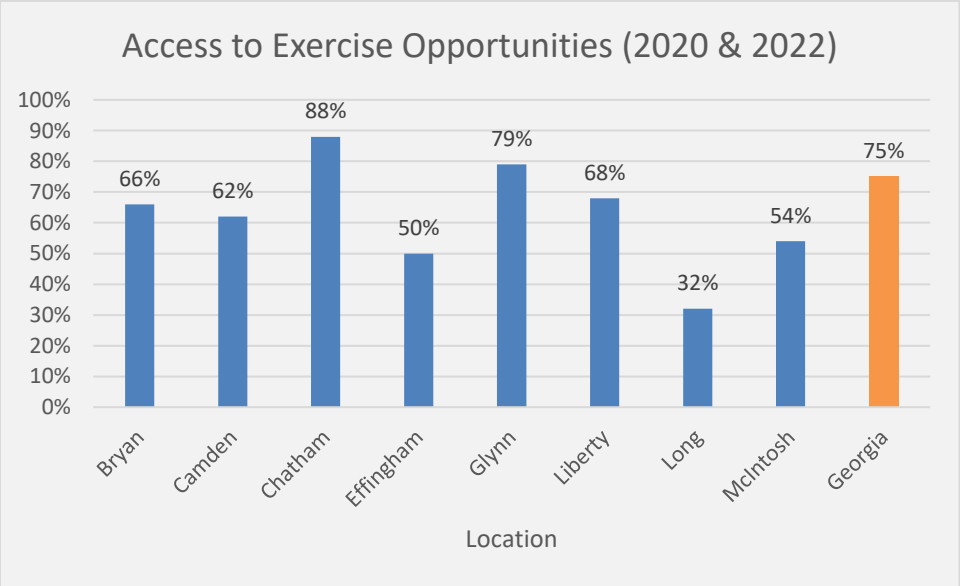
Access to exercise opportunities is defined as the percentage of individuals within a county who live close to a park or recreational facility. Proximity to facilities for physical activity does take into consideration population size and is expressed as the following [15]:

- Residing in a census block within a half mile of a park, or
- If living in an urban area, residing in a census block within one mile of a recreational facility in an urban area, or
- If living in a rural area, residing in a census block within three miles of a recreational facility in a rural area.

Having access to spaces for physical activity decreases the risk for multiple chronic conditions, including obesity, type 2 diabetes, heart disease, stroke, and several cancers (such as breast, colon, and lung cancers) [15] [30].

According to CHR&R 2023 estimates, the percentage of individuals in CHD counties lacking access to a location for physical activity ranged from 32% – 88%, with only Chatham County and Glynn County better than Georgia's statewide average of 75%.

Figure 38: Percentage of Population with Access to Exercise Opportunities, by County, 2020 & 2022



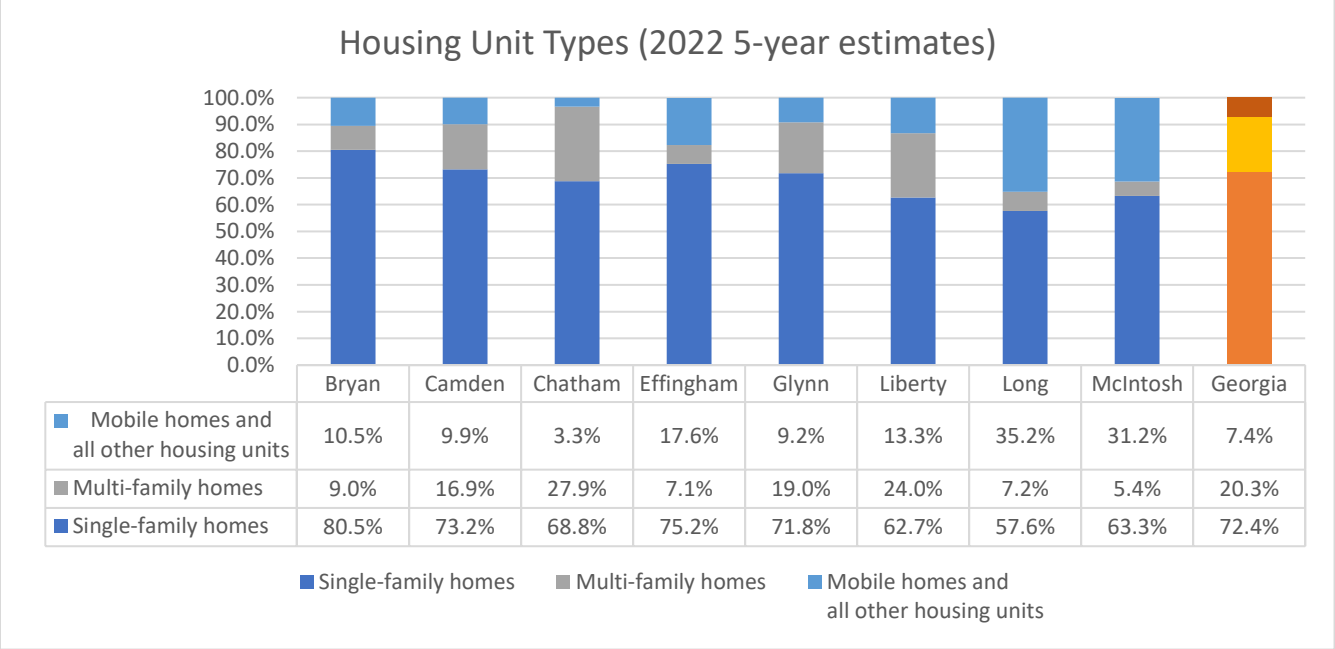
Source: County Health Rankings & Roadmaps

Housing

Type of Housing

According to ACS 2022 5-year estimates, on average, Georgia's housing types are 72.4% single-family homes, 20.3% multi-family homes, and 7.4% mobile homes and other types of housing units. Housing across the CHD had similar ranges, with single-family homes comprising about 60% - 80% of all housing options; multi-family homes making up between 5% - 30% of households; and the remaining 3% - 35% consisting of mobile and other types of units. Chatham County and Liberty County have considerably higher percentages of occupied multi-family households; while Long, McIntosh, and Effingham have significantly higher percentages of mobile homes/other types of housing units.

Figure 39: Percentage of Housing by Type, by County, 2022 5-year estimates



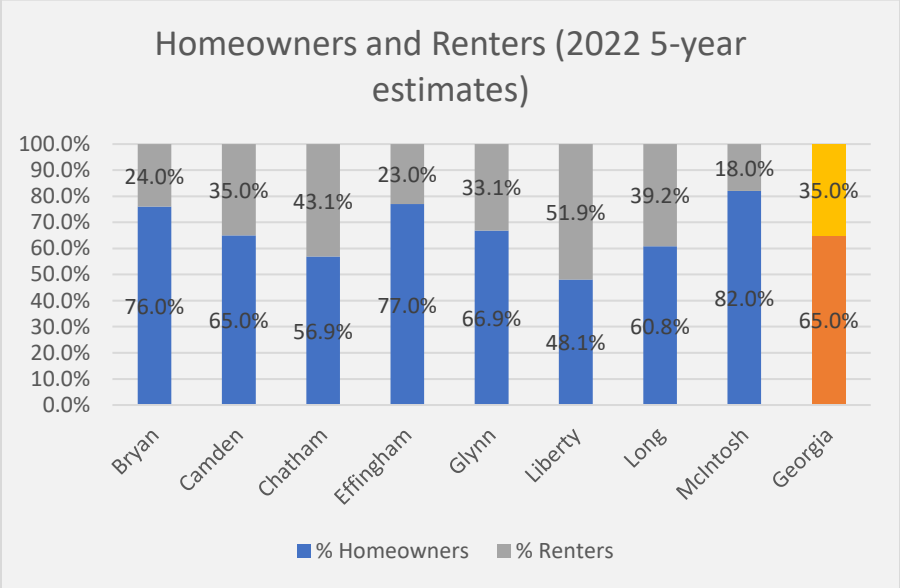
	Bryan	Camden	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Georgia
Mobile homes and all other housing units	10.5%	9.9%	3.3%	17.6%	9.2%	13.3%	35.2%	31.2%	7.4%
Multi-family homes	9.0%	16.9%	27.9%	7.1%	19.0%	24.0%	7.2%	5.4%	20.3%
Single-family homes	80.5%	73.2%	68.8%	75.2%	71.8%	62.7%	57.6%	63.3%	72.4%

Source: American Community Survey

Homeowners & Renters

According to ACS 2022 5-year estimates, 65.0% of Georgia homes were owner-occupied, while 35% were renter-occupied. Owner/Renter ratios across CHD counties had similar ranges. Of note though, McIntosh, Effingham, and Bryan Counties have considerably higher percentages of homeowners, while Chatham and Liberty Counties have significantly higher renter percentages.

Figure 40: Homeowners & Renters, by County, 2022 5-year estimates

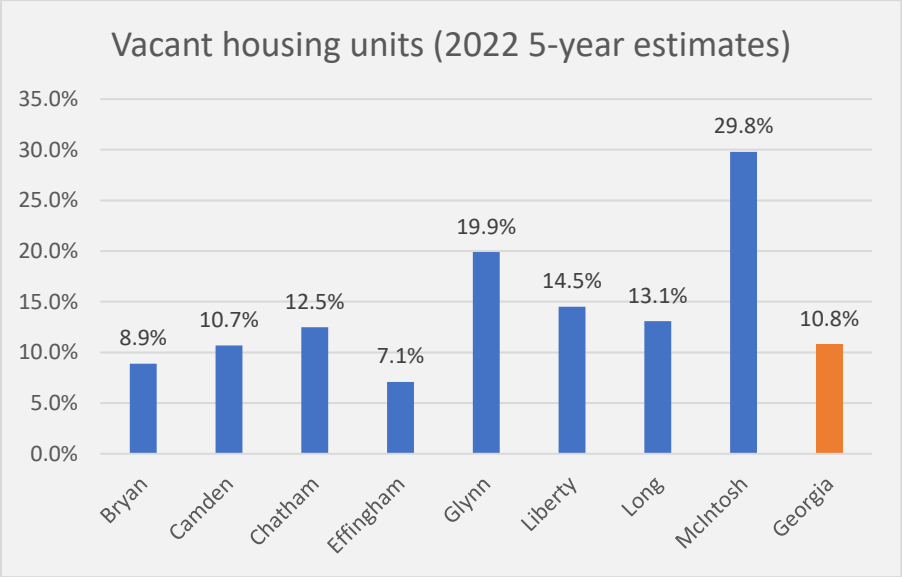


Source: American Community Survey

Vacant Housing Units

According to ACS 2022 5-year estimates, the percentage of vacant housing units in the CHD ranged from 7.1% – 29.8%, with Glynn County and McIntosh County nearly double and triple Georgia's average of 10.8%, respectively.

Figure 41: Vacant Housing Units, by County, 2022 5-year estimates

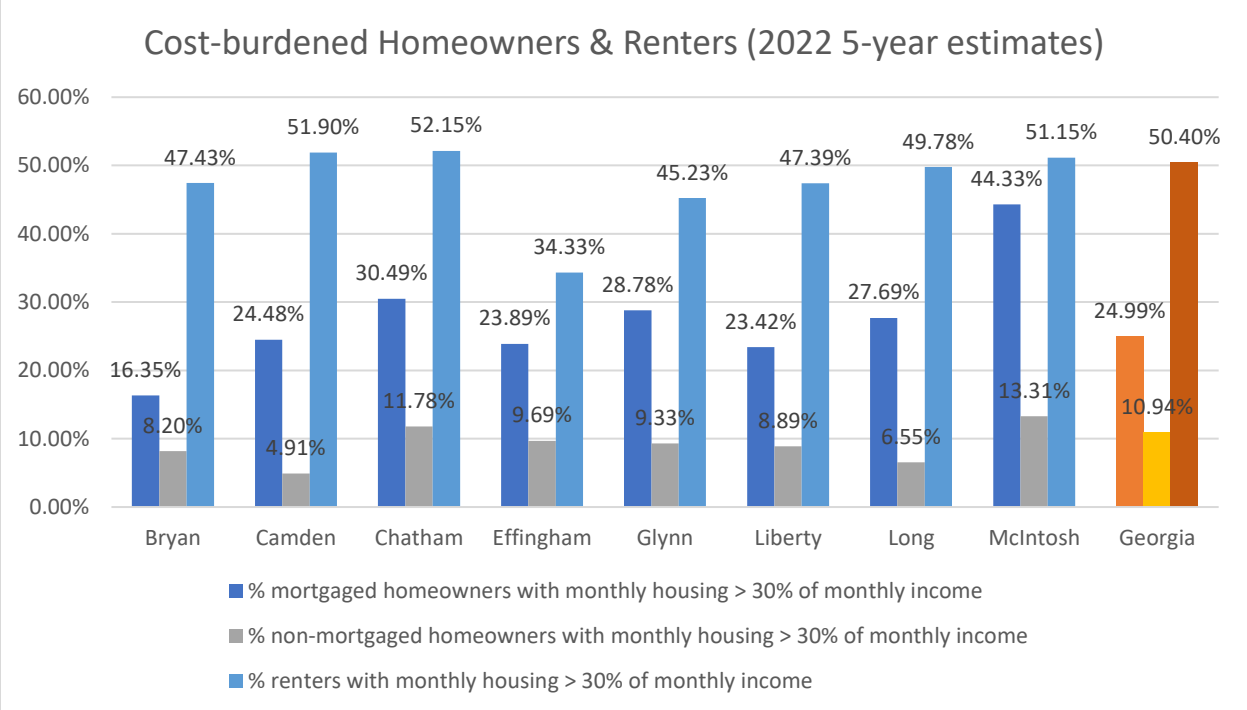


Source: American Community Survey

Cost-burdened Housing

Cost-burdened housing refers to those who spend a significant portion of their monthly income on housing; for this particular indicator, that percentage is 30% or more of their monthly earnings. According to ACS 2022 5-year estimates, on average, 24.99% of homeowners with a mortgage, 10.94% of homeowners without a mortgage, and 50.40% of renters are cost-burdened across the state of Georgia. The percentage of cost-burdened in households across the CHD has similar ranged: homeowners with a mortgage spent between 16.35% - 44.33%; those who owned their home free and clear (home is paid-off) spent between 4.91% - 13.31% of households; and renters spent 34.33% - 52.15% on monthly rent. At almost double the statewide average, McIntosh County has the highest percentage of cost-burdened homeowners with a mortgage. On the other hand, the percentage of cost-burdened homeowners without a mortgage in Camden County is half the Georgia state average and the lowest of the 8 CHD counties. Likewise, while most of the CHD counties are similar to Georgia's statewide average, the percentage of cost-burdened renters in Effingham County (the lowest of the 8) is about ⅓ lower in comparison.

Figure 42: Cost-burdened Housing by Type of Household, by County, 2022 5-year estimates



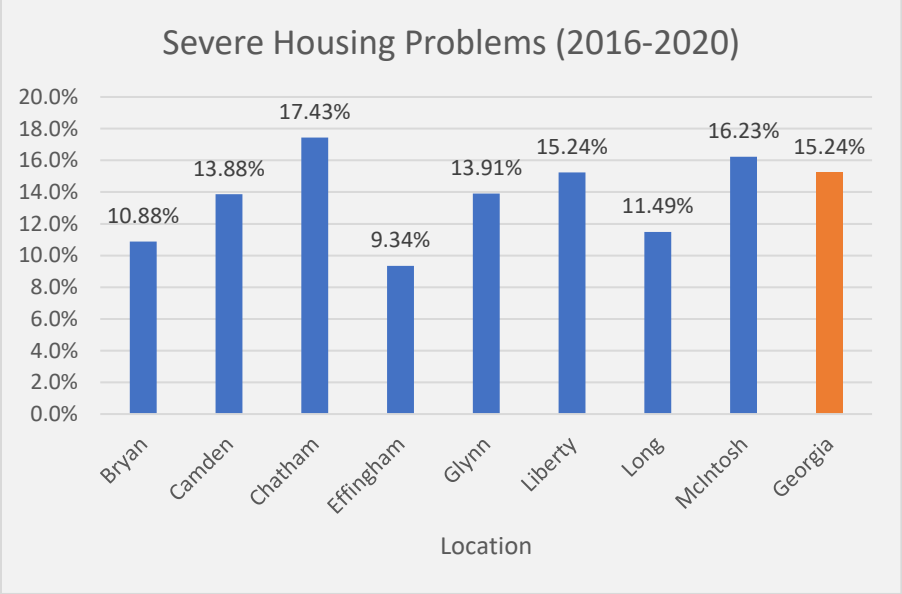
Source: American Community Survey

Severe Housing Problems

According to the United States Department of Housing and Urban Development (HUD), a home is defined as having severe housing problems if it meets at least one of the following criteria: "incomplete kitchen facilities, incomplete plumbing facilities, more than one person per room, and cost burden greater than 50%" [31].

According to HUD CHAS (Comprehensive Housing Affordability Strategy) 2016-2020 estimates, the percentage of households with severe housing problems ranged from 9.34% – 17.43%, with Liberty County, Chatham County, and McIntosh County meeting or exceeding Georgia's average of 15.24%.

Figure 43: Households with Severe Housing Problems, by County, 2016-2020



Source: United States Department of Housing and Urban Development

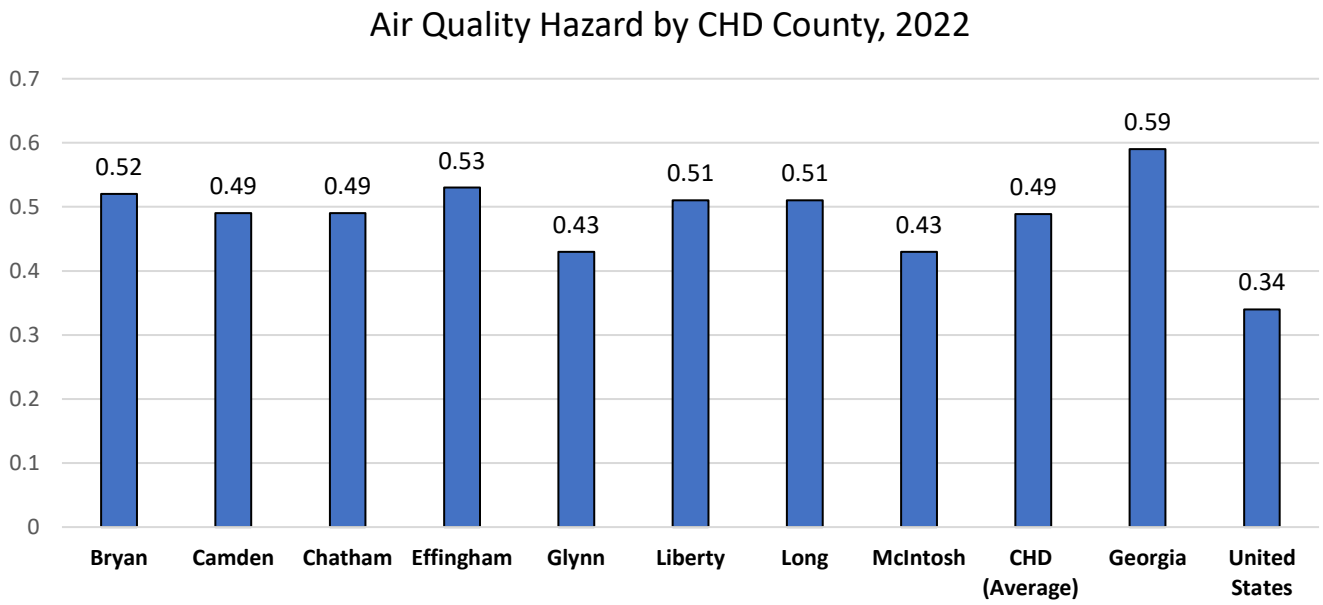
Health Influences

Environmental Health

Air Quality

The physical and built environment are fundamental determinants of a healthy community. Environmental health is intricately tied to air quality, playing a pivotal role in human well-being. Air pollution, stemming from various sources, such as industrial emissions, vehicular exhaust, and deforestation, poses significant threats to both the environment and public health. Fine particulate matter (PM2.5) and harmful gases can lead to health conditions, including respiratory problems, cardiovascular issues, and other adverse health effects. Monitoring and improving air quality are crucial in safeguarding our environment and preventing extensive health concerns. Sustainable practices, reduced emissions, and increased awareness are essential for maintaining a healthier balance between human activities and the air we breathe. The air quality hazard measures the potential risk of developing serious respiratory complications in a lifetime, and this risk is minimal in the Coastal Health District (smaller values indicate reduced risk).

Figure 44: Air Quality Hazard by CHD County, 2022

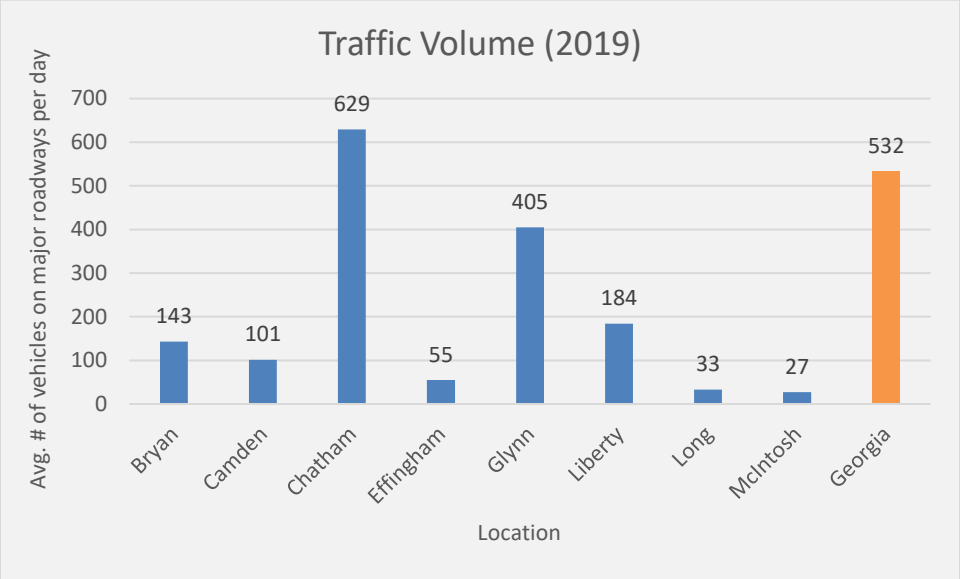


Source: U.S. News- Healthiest Communities

Traffic Volume

Traffic Volume is defined as the average number of vehicles per meter of major roadways [15]. Motor vehicle traffic near residential areas is associated with increased exposure to ambient noise, toxic gases, & particulate matter, as well as asthma, cardiovascular disease (CVD), including myocardial infarctions, and stress [15]. In 2019, traffic volume in CHD counties ranged from 27 – 629 vehicles per meter per day; only Chatham County exceeded the statewide average of 532.

Figure 45: Traffic Volume, by County, 2019

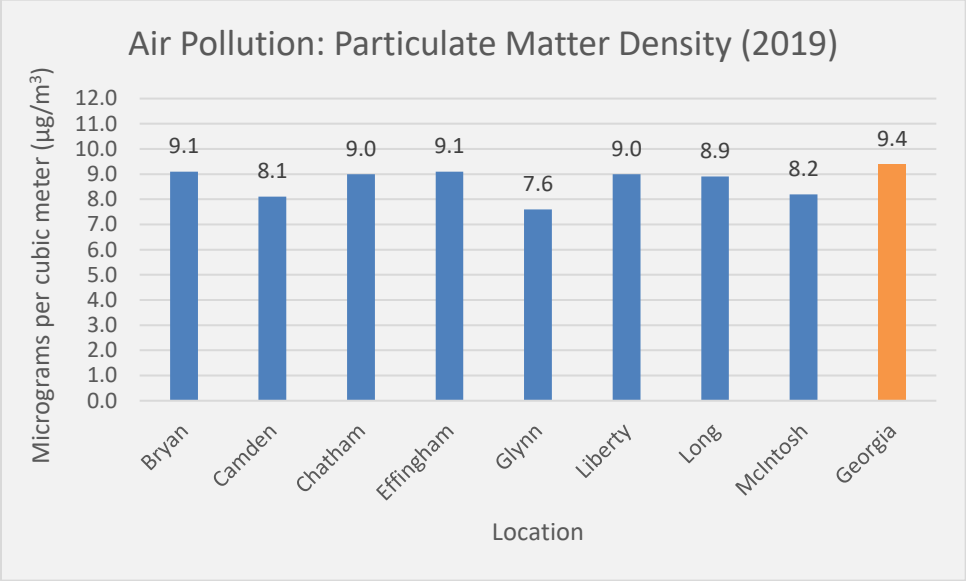


Source: County Health Rankings & Roadmaps

Air Pollution

Air pollution is a risk factor for numerous health issues, including reduced lung function, chronic bronchitis, asthma, and other poor pulmonary outcomes [15]. This data defines air pollution as the average daily density of fine particulate matter ($PM_{2.5}$) measured in the air over a 1-year timespan. [5] In 2019, all eight CHD counties had a lower average density compared to Georgia's 9.4 µg/m3. Additionally, all listed locations were lower (better) than the EPA's air quality standard of 12.0 µg/m3 [15] [5].

Figure 46: Air Pollution (Particulate Matter Concentration), by County, 2019



Source: County Health Rankings & Roadmaps

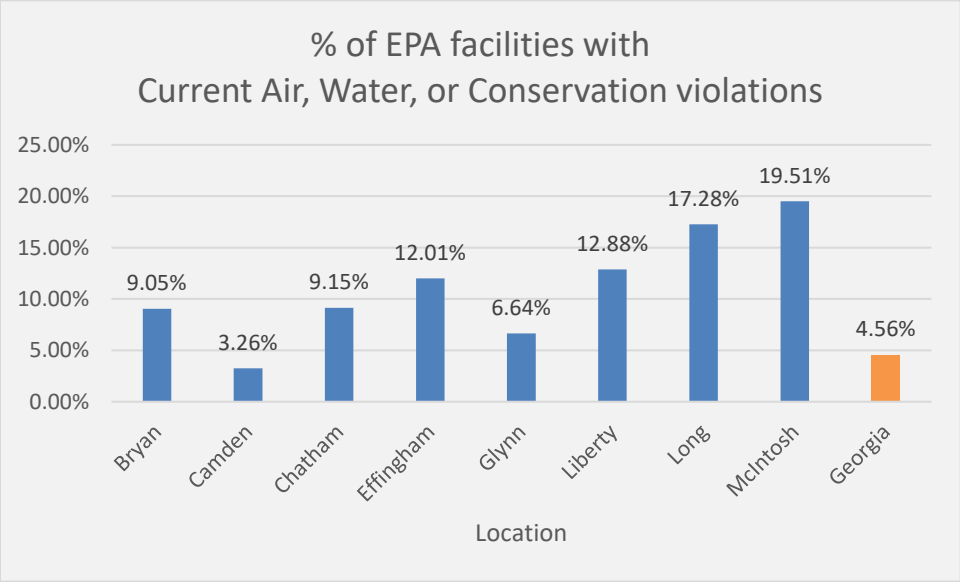
Environmental Facilities

Current Violations

Information about compliance and enforcement records for facilities regulated by the United States Environmental Protection Agency (EPA) can be found through a web tool (Enforcement and Compliance History Online), more commonly known as ECHO [32]. The tool can be used to review local facilities' compliance and regulatory history regarding environmental regulations, specifically related to the Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), and Safe Drinking Water Act (SDWA) [32]. Violations vary but can indicate excessive release of pollutants, not meeting hazardous waste handling requirements, or failure to submit one or more mandatory reports [32].

As of November 6, 2023, the percentage of current violations for any environmental program (Air, Water, Hazardous Waste, or Drinking Water) in CHD counties ranged from 3.26% – 19.51%. All counties but Camden have higher percentages of facilities with current violations compared to Georgia's 4.56%.

Figure 47: Percentage of EPA Facilities with Current Violations, by County, as of November 6, 2023

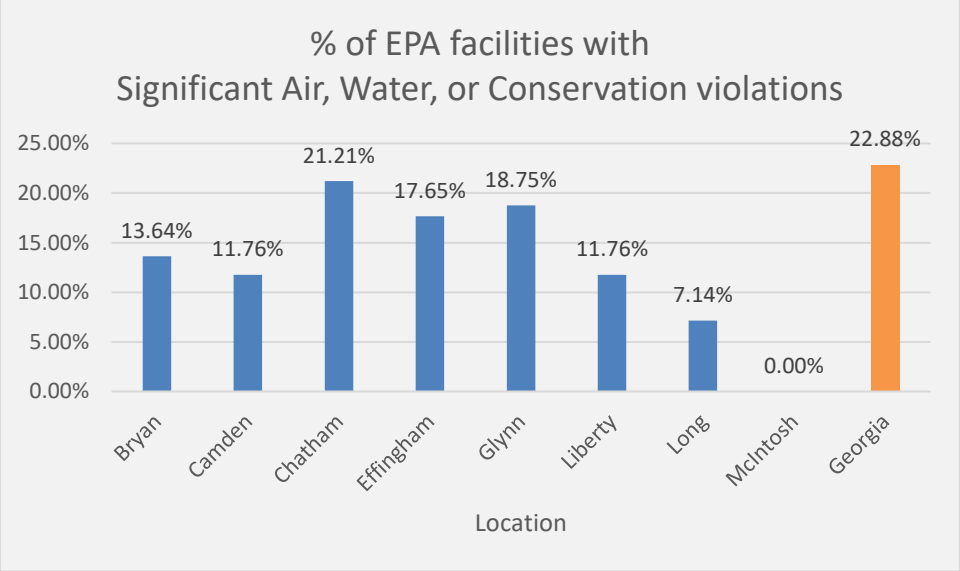


Source: Enforcement and Compliance History Online

Significant Violations

As of November 6, 2023, the percentage of significant violations for any environmental program (Air, Water, Hazardous Waste, or Drinking Water) in CHD counties ranged from 0.00% – 21.21%. All 8 CHD counties have lower percentages of significant violations than Georgia's 22.88%.

Figure 48: Percentage of EPA Facilities with Significant Violations, by County, as of November 6, 2023

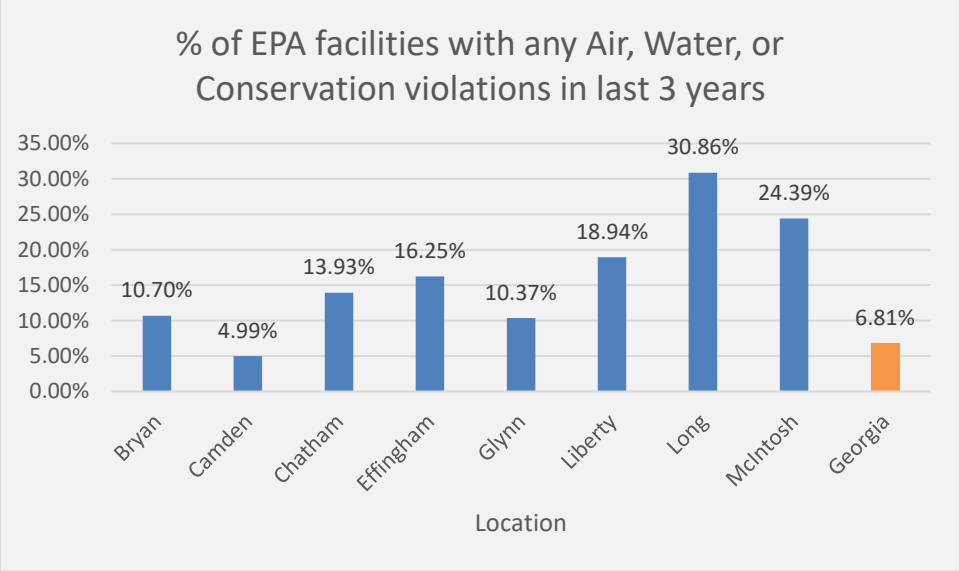


Source: Enforcement and Compliance History Online

Violations within Last 3 Years

As of November 6, 2023, the percentage of violations in the last 3 years for any environmental program (Air, Water, Hazardous Waste, or Drinking Water) in CHD counties ranged from 4.99% – 30.86%. All but Camden County have higher percentages of violations than Georgia's 6.81%.

Figure 49: Percentage of EPA Facilities with Violations in the Last 3 Years, by County, as of November 6, 2023



Source: Enforcement and Compliance History Online

Hazardous Chemical

Lead

Lead is a heavy metal commonly used to produce batteries and ammunition. Lead used to be found in paint, children's toys, and dishes or cookware. The U. S. Consumer Product Safety Commission banned hazardous lead levels in children's toys under the 1973 Federal Hazardous Substances Act [33]. Furthermore, the federal government banned lead-based paint in residential homes in 1978. However, the EPA reports that lead-based paint is still present under layers of newer paint. The figure below displays the approximate number of houses built before 1978 by county. The counties with the most houses built before 1978 are Chatham County and Glynn County.

Figure 50: Houses Built Before 1978 by CHD County, 2021

County	Houses Built Before 1978 (Approximate) *
Bryan	2,515
Camden	4,318
Chatham	59,766
Effingham	4,511
Glynn	17,314
Liberty	6,811
Long	1,497
McIntosh	1,840

Source: U.S. Census Bureau *Estimate includes houses built in 1979

Lead poisoning is an illness that occurs when someone swallows or inhales lead. Lead can be harmful to anyone; however, children under the age of six are at the greatest risk of being harmed because their bodies easily absorb it. The CDC defined childhood lead poisoning as 3.5 ug/dL (micrograms per deciliter) or more of lead within the body at the time of screening [33]. The figure below shows how many children less than 6-years-old were screened for lead poisoning and how many children had elevated lead levels. In 2022, Chatham County screened the most children and had the highest number of children with elevated lead levels compared to the other counties in the Coastal Health District.

Figure 51: Number of Children Less Than 6 Years Old Screened for Lead Poisoning by CHD County, 2022

County	Total Number Screened	Lead Level 3.5-9 ug/dL	Lead Level >=10 ug/dL
Bryan	491	18	4
Camden	493	7	0
Chatham	4,454	116	18
Effingham	818	14	1
Glynn	1,004	30	5
Liberty	951	11	1
Long	242	8	0
McIntosh	133	5	0
CHD	8,586	209	29
Georgia	88,852	2,977	423

Source: GHHLPPP Database

Wastewater

Poor air and water quality can contribute to health conditions ranging from respiratory diseases, gastrointestinal diseases, cancers, neurological disturbances, and other illnesses. The Clean Water Act prohibits discharging pollutants into a body of water in the United States without a permit. The EPA lists several examples of pollutants, including but not limited to dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological or radioactive materials, discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural debris [34]. The following table lists the companies with new or expiring permits to discharge wastewater into bodies of water in the Coastal Health District as of December 19, 2023. Hyundai Steel's permit in Ellabell, Georgia expired July 31, 2023. McIntosh County was the only county that did not have any new or expiring permits. WPCP stands for Water Pollution Control Plant.

Figure 52: Facilities with New or Expiring Wastewater Permits in the CHD, 2023

Facilities with New Permits	Facilities with Expiring Permits
Ft. Stewart (Dept. Of the Army)	City of Savannah - Travis Field WPCP
Gulfstream Aerospace Corp.	Garden City (Garden City WPCP)
I-16 West Tract Development	Georgia Atlantic Port, LLC
City of Pooler (Bloomingdale WPCP)	Interfor, Inc.
Savannah Quarters Country Club	International Paper
Weyerhaeuser Port Wentworth	US Army Garrison Hunter Army Airfield MS4
City of Tybee Island	Weyerhaeuser Port Wentworth
United States Department of the Navy (Naval Submarine Base Kings Bay)	US Army Garrison Fort Stewart MS4
GA Power Plant McManus	Georgia-Pacific Savannah River LLC
	McCall Place

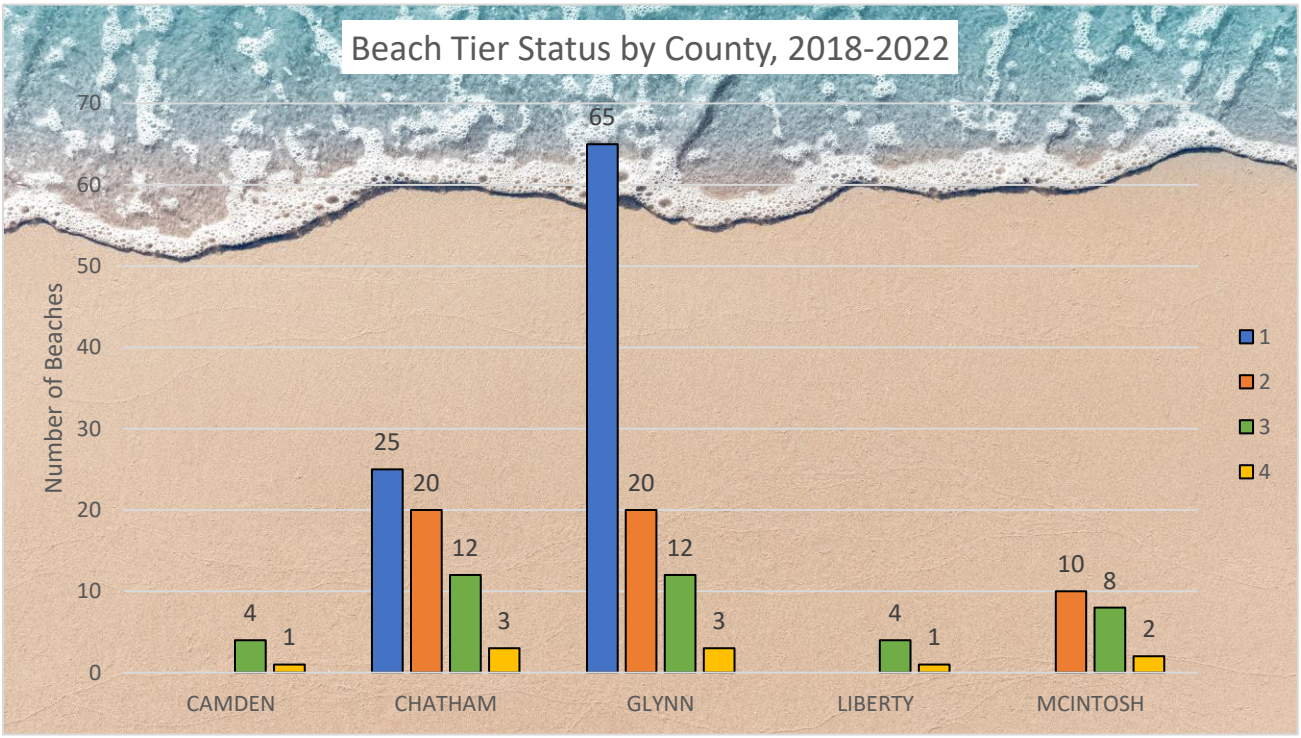
Source: EPA

Coastal Beaches

The Coastal Health District is home to miles of beaches that are subject to monitoring and testing. Under the BEACH Act, states designate their water quality based on EPA recommendations. Beaches that are not used frequently or have few water quality issues are classified as Tier 3 beaches and tested less often, while densely populated beaches and beaches that consecutively exceed bacterial limits are classified as Tier 1 and tested more frequently. Tier 4 beaches are non-reporting. The chart below shows the total number of beach tier statuses by county for 2018-2022. Glynn County and Chatham County had beaches that were tested more frequently due to being populated or consecutively exceeding bacterial limits.

**See appendix for full list of beaches by county.*

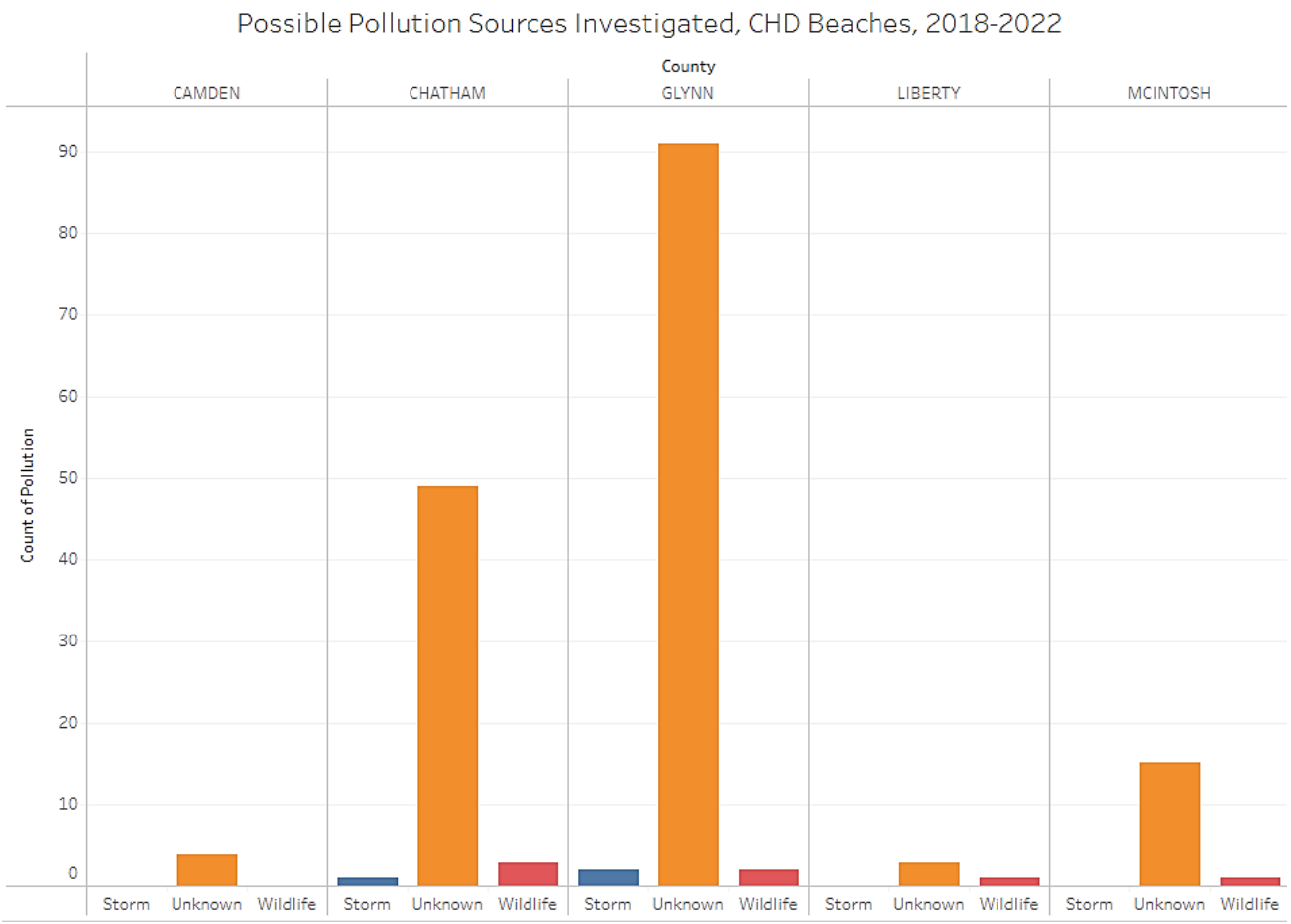
Figure 53: Beach Tier Status by County, 2018-2022



Source: EPA- BEACON 2.0

The chart below shows the possible sources of pollution that have been associated with known beach advisories for 2018-2022 by county. Water samples from Georgia beaches are routinely tested for bacteria, specifically Enterococcus. Between 2018 and 2022, Chatham County and Glynn County were the only counties with beach advisories or closings due to elevated bacteria.

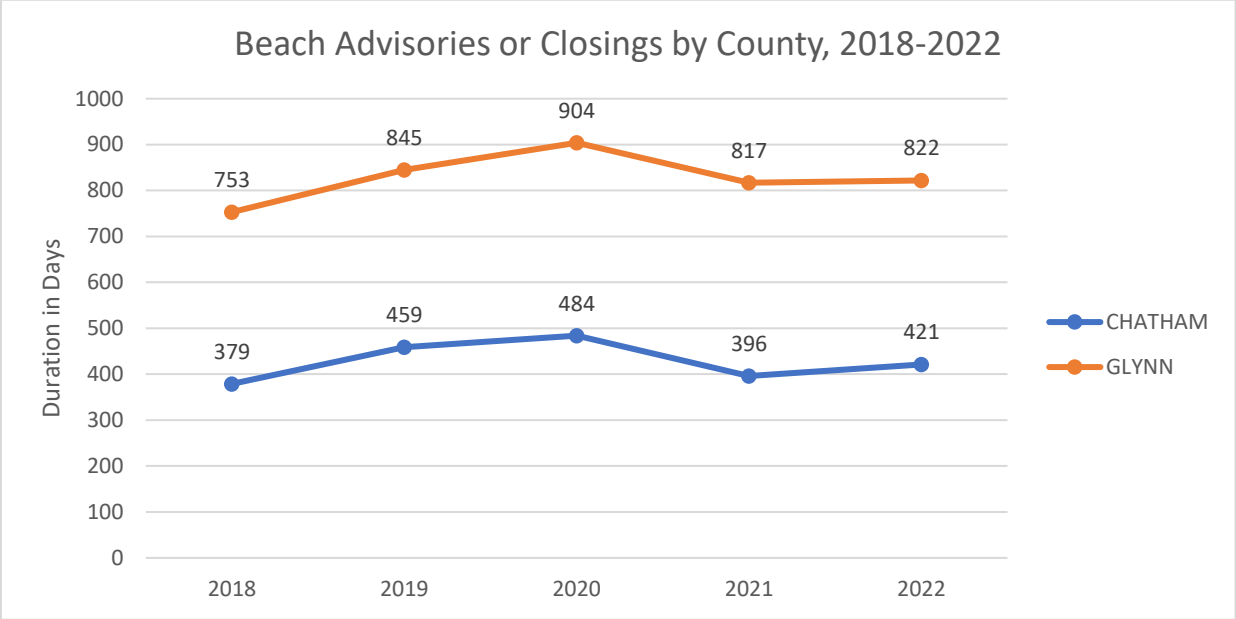
Figure 54: Possible Sources of Pollution by County, 2018-2022



Source: EPA- BEACON 2.0

The trend line below displays the duration (in days) of beach advisories or closures for both counties from 2018 to 2022. King's Ferry in Chatham County, St. Andrew's Beach on Jekyll Island in Glynn County, and Jekyll Clam Creek Beach in Glynn County had action advisory days that lasted the entire year for each year.

Figure 55: Beach Advisories or Closings by County, 2018-2022

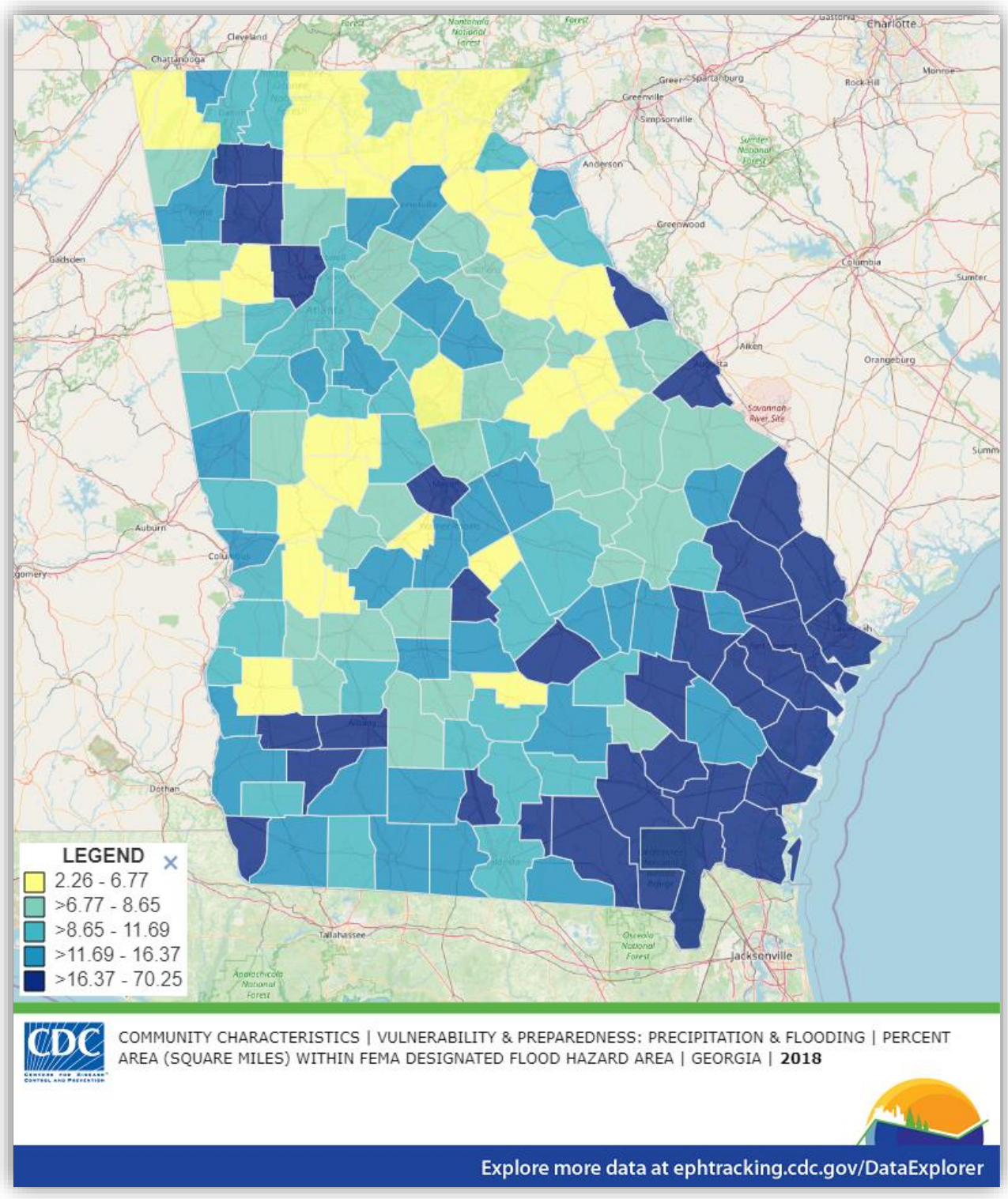


Source: EPA- BEACON 2.0

Flooding

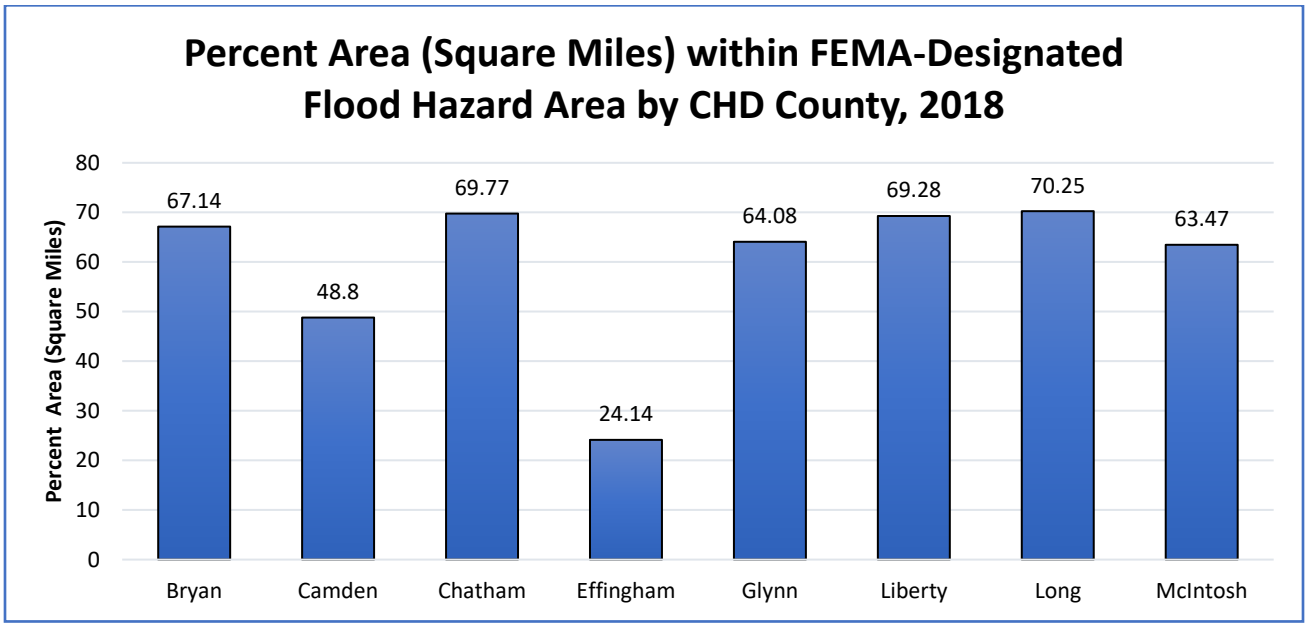
Living in the Coastal Health District has the advantage of being close to miles of beautiful beaches, but with that advantage comes the increased risk of flooding. Floods are the most common disaster in the United States [35]. They can cause outages, disrupt transportation, and damage buildings. The map and chart below display the percent area in square miles of Georgia's counties within FEMA-designated flood hazard areas for the most current year available, 2018. The chart compares the counties within the Coastal Health District in percentage area in square miles within FEMA-designated flood hazard areas. Long, Chatham, and Liberty counties have the highest percentages, while Effingham and Camden have the lowest. Even though Long, Chatham, and Liberty had the highest percentage of square miles within FEMA-designated flood hazard areas, Glynn County and Bryan County had the highest percentage of homes in flood hazard zones, 54.9% and 32.9%, respectively. Long County and Effingham County have the lowest percentage of homes in flood hazard zones as of 2022. Additionally, only five of Georgia's 159 counties have hospital beds within FEMA flood hazard areas, two of which are in the Coastal Health District. Chatham County had 16.70%, and Glynn County had 25.19% of their hospital beds in FEMA flood hazard areas.

Figure 56: Percent Area (Square Miles) within FEMA-Designated Flood Hazard Area by County, 2018



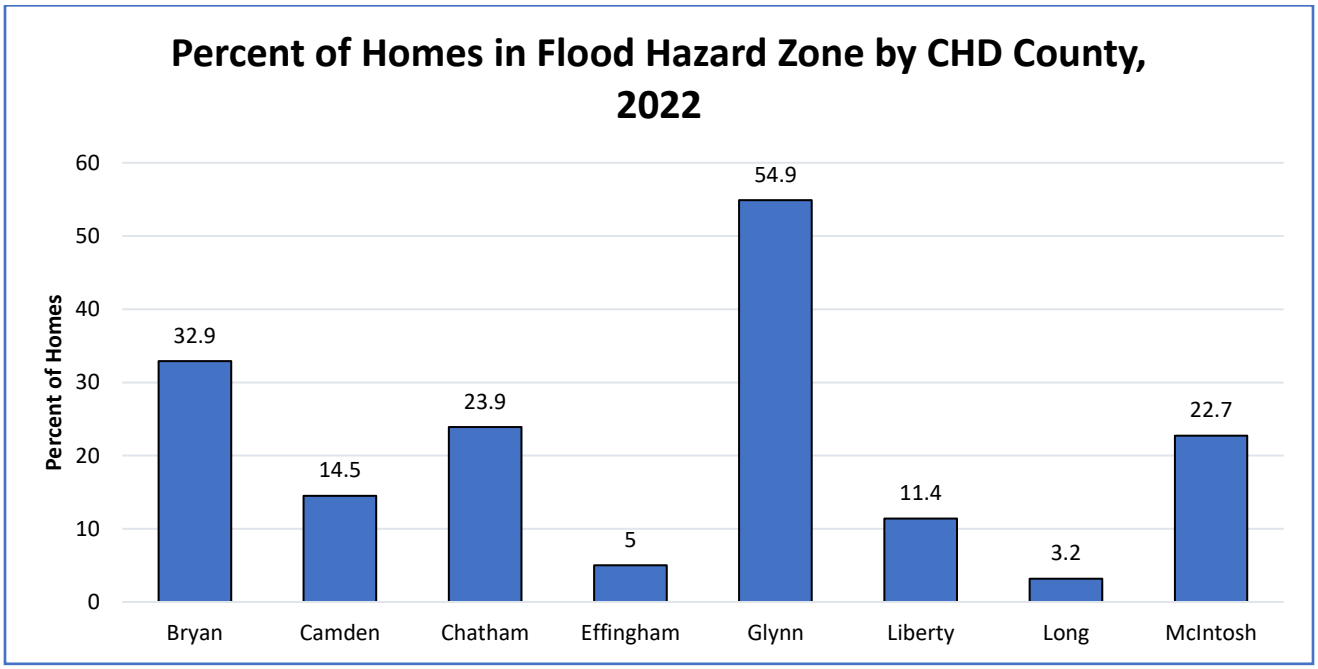
Source: CDC- National Environmental Public Health Tracking Network

Figure 57: Percent Area (Square Miles) within FEMA-Designated Flood Hazard Area by CHD County, 2018



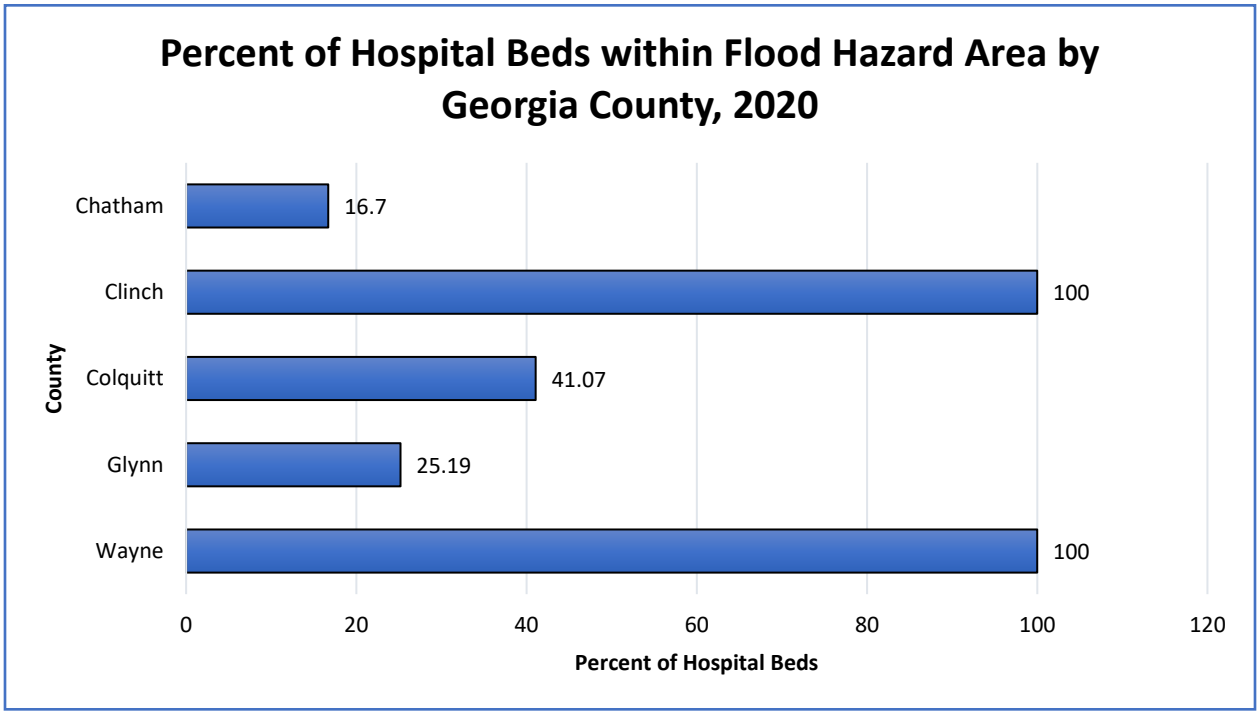
Source: CDC- National Environmental Public Health Tracking Network

Figure 58: Percent of Homes in Flood Hazard Zone by CHD County, 2022



Source: U.S. News- Healthiest Communities

Figure 59: Percent of Hospital Beds within Flood Hazard Area by Georgia County, 2020



Source: CDC- National Environmental Public Health Tracking Network

Rabies

Rabies is a vaccine-preventable virus that can be transmitted by both domestic and wild animals. Rabies only affects mammals and is spread through contact with an infected animal's saliva. More than 90% of reported rabies cases in the U. S. occur in wild animals [36]. The table below displays the percentage of positive rabies cases by county in the Coastal Health District from 2018-2022. Chatham County and Glynn County had the highest percentage of positive rabies cases, 70%, and 13.33%, respectively. Long County and Liberty County did not have any rabies cases. It is important to note that the case reflects the counties where the animal bite or exposure occurred, not the counties of the injured person or animal.

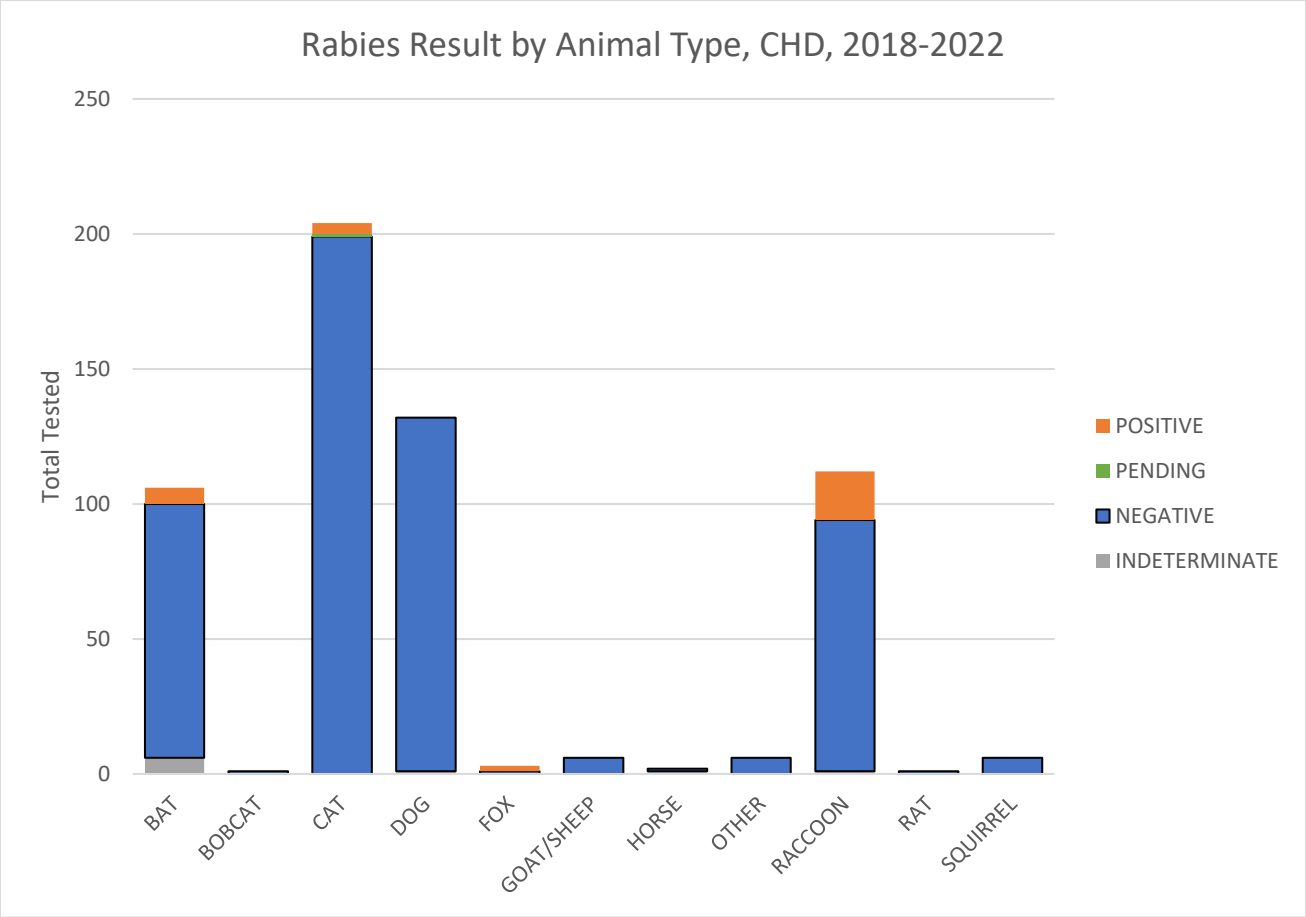
Figure 60: Percentage of Positive Rabies Cases by County, 2018- 2022

County	Percent
Bryan	3.33%
Camden	6.67%
Chatham	70.00%
Effingham	3.33%
Glynn	13.33%
Liberty	3.33%
Long	0.00%
McIntosh	0.00%
Grand Total	100.00%

Source: SendSS

The wild animals that commonly carry rabies in the U. S. are skunks, raccoons, foxes, and bats. The CDC reported that contact with an infected bat is the leading cause of human rabies deaths in the United States [36]. The figures below display the types of animals that have been tested for rabies in the Coastal Health District between 2018 and 2022. Of the different types of animals tested, only four had positive rabies results: raccoon (18), bat (6), cat (4), and fox (2). Several animals had indeterminate results: bat (6), dog (1), horse (1), and raccoon (1). The cats that tested positive for rabies were strays, as well as the one pending result. The indeterminate result for the horse and the dog were due to unsatisfactory specimens. In short, the Coastal Health District's positive rabies cases come from wild animals.

Figure 61: Rabies Result by Animal Type, CHD, 2018-2022



Source: SendSS

Figure 62: Rabies Result by Animal Type Table, CHD, 2018-2022

Animal	Positive	Pending	Negative	Indeterminate
Bat	6		94	6
Bobcat			1	
Cat	4	1	199	
Dog			131	1
Fox	2		1	
Goat/ Sheep			6	
Horse			1	1
Other			6	
Raccoon	18		93	1
Rat			1	
Squirrel			6	

Source: SendSS

Restaurant Inspections

A significant role of an environmental health specialist at the Coastal Health District involves restaurant, pool, and hotel inspections. Restaurant inspections are a cornerstone of public health efforts, ensuring that food establishments adhere to hygiene and safety standards. These inspections play a vital role in preventing foodborne illnesses and maintaining the overall well-being of the community. By assessing factors such as food handling, cleanliness, and sanitation practices, health authorities can promptly identify and address potential risks. Rigorous and regular inspections contribute to the public's confidence in the safety of dining establishments, promoting a healthier environment for patrons, and reducing the likelihood of foodborne outbreaks.

Environmental Health inspection reports are available on the Georgia Department of Public Health's and Coastal Health District's website. The tables below are the top three restaurant code violations for each county and the Coastal Health District from 2017 through 2022. In 2022, McIntosh County did not have three top violations. In 2019 and 2021, Long County did not have three top violations.

Figure 63: Top 3 Restaurant Code Violations in the CHD, 2017- 2022

Year	Top 3 Restaurant Code Violations in the CHD
2017	Food-contact surfaces: cleaned & sanitized
	Adequate handwashing facilities supplied & accessible
	Proper cold holding temperatures
2018	Physical facilities installed, maintained, and clean
	Food-contact surfaces: cleaned & sanitized
	Adequate handwashing facilities supplied & accessible
2019	Physical facilities installed, maintained, and clean
	Nonfood-contact surfaces clean
	Food-contact surfaces: cleaned & sanitized
2020	Physical facilities installed, maintained, and clean
	Food-contact surfaces: cleaned & sanitized
	Nonfood-contact surfaces clean
2021	Physical facilities installed, maintained, and clean
	Food-contact surfaces: cleaned & sanitized
	Nonfood-contact surfaces clean
2022	Food-contact surfaces: cleaned & sanitized
	Physical facilities installed, maintained, and clean
	Proper cold holding temperatures

Source: Georgia Department of Public Health

Food contact surfaces: cleaned and sanitized was the top restaurant code violation across the counties of the Coastal Health District for 2017-2022.

Figure 64: Top 3 Restaurant Code Violations in Bryan County, 2017- 2022

Source: Georgia Department of Public Health

Figure 65: Top 3 Restaurant Code Violations in Camden County, 2017- 2022

Source: Georgia Department of Public Health

Figure 66: Top 3 Restaurant Code Violations in Chatham County, 2017- 2022

Source: Georgia Department of Public Health

Figure 67: Top 3 Restaurant Code Violations in Effingham County, 2017- 2022

Source: Georgia Department of Public Health

Figure 68: Top 3 Restaurant Code Violations in Glynn County, 2017- 2022

Source: Georgia Department of Public Health

Figure 69: Top 3 Restaurant Code Violations in Liberty County, 2017- 2022

Source: Georgia Department of Public Health

Figure 70: Top 3 Restaurant Code Violations in Long County, 2017- 2022

Source: Georgia Department of Public Health

Figure 71: Top 3 Restaurant Code Violations in McIntosh County, 2017- 2022

Source: Georgia Department of Public Health

Mental Health

Mental health encompasses our psychological, emotional, and social well-being [37]. Mental health disorders can affect a person's mood, feelings, thinking, and behavior [38]. With there being over 200 types of mental health disorders, it is no surprise that mental health disorders and illnesses are one of the most common groups of health conditions in the United States [37]. Some mental health disorders can be short-term or episodic; while others last for years and require lifelong treatment [37]. Some examples of well-known mental health disorders are schizophrenia, bipolar disorder, obsessive-compulsive disorder, post-traumatic stress disorder (PTSD), and major depression [37] [38].

Struggles with mental health are something many Americans will encounter in their lifetime, be it personally, or through a family member, spouse, or close friend as approximately 20% of all people 13 and older in the United States have or will experience a mental health disorder at some point during their lifespan [37].

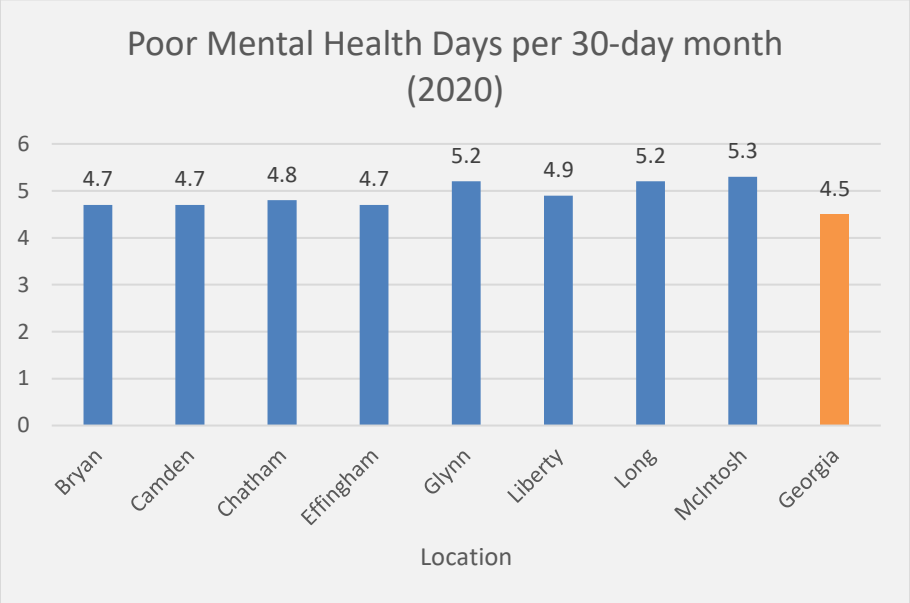
Furthermore, having a mental health disorder often has an impact on a person's physical health and well-being as well, as some disorders can make it more difficult to be physically active are eat well, increasing the likelihood of developing or worsening a chronic health condition like diabetes or heart disease [39] [37]. In addition, having certain chronic health conditions can make it more difficult for a person to access mental health services, due to challenges in mobility, transportation, and affordability [39] [37].

Mental Wellbeing

Poor Mental Health Days

County Health Rankings & Roadmaps 2023 defines this indicator as the age-adjusted average number of reported mentally unhealthy days reported by adults (18+) in the past 30-day period [15]. All CHD counties have higher average numbers of poor mental health days compared to Georgia's 4.5 days per 30-day month.

Figure 72: Average Number of Poor Mental Health Days per 30-day month, aged 18 and older, by County, 2020

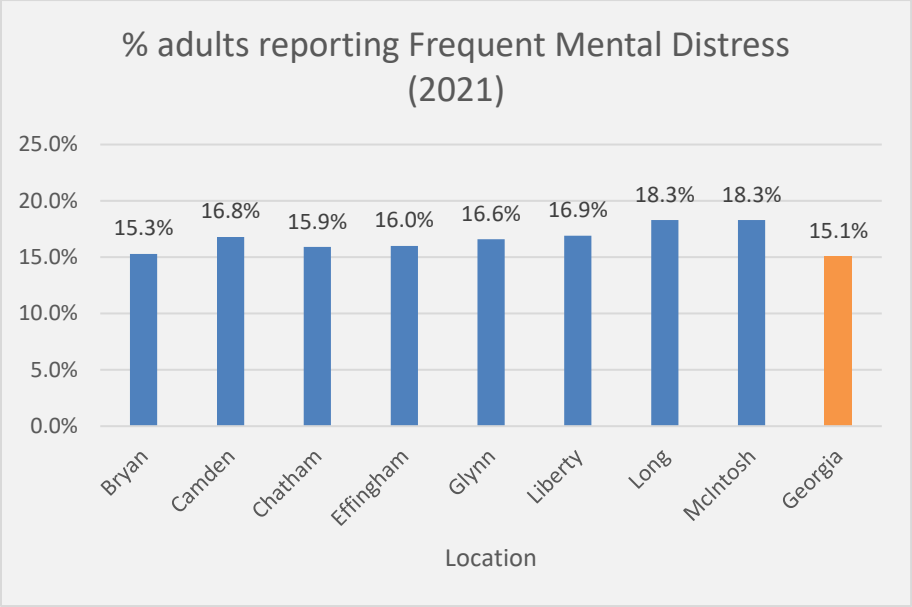


Source: County Health Rankings & Roadmaps

Frequent Mental Distress

CDC PLACES defines this indicator as the percentage of adults (18+) who have experienced 14 or more days poor mental health days in the past 30-day period [40] [15]. Again, all CHD counties have higher percentages of adults (18+) with frequent occurrences of mental distress compared to Georgia's 15.1%.

Figure 73: Age-Adjusted Frequent Mental Distress, aged 18 and older, by County, 2021

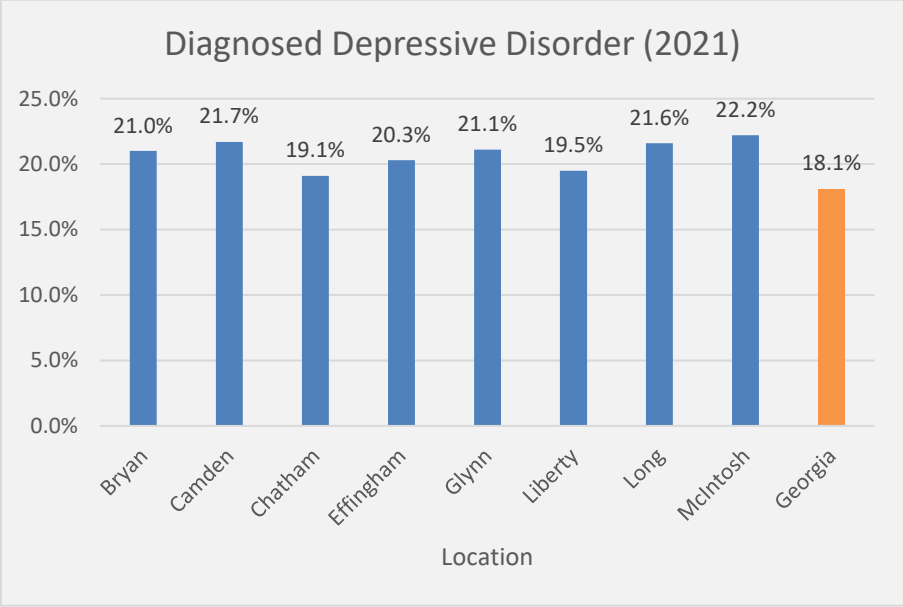


Source: CDC PLACES & BRFSS

Diagnosed Depressive Disorder

CDC PLACES defines this indicator as the percent of adults (18+) who reported ever being told by a health professional that they have a depressive disorder, such as depression, major depression, persistent depressive disorder (dysthymia), or minor depression [41]. All CHD counties have higher percentages of adults (18+) with depressive disorders compared to Georgia's 18.1%.

Figure 74: Age-Adjusted Percentage of Diagnosed Depressive Disorder, aged 18 and older, by County, 2021



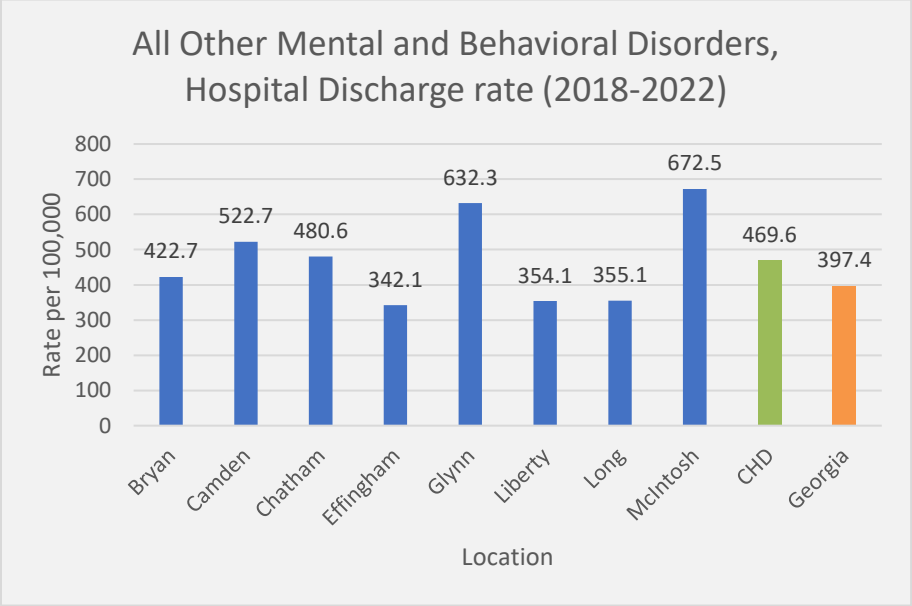
Source: CDC PLACES & BRFSS

All Other Mental and Behavioral Disorders

All Other Mental and Behavioral Disorders Hospital Discharge Rate

OASIS groups together any other hospitalizations due to all other mental and behavioral disorders, such as a recurrent depressive disorder episode, that is severe but without psychotic symptoms [42]. CHD's all other mental and behavioral disorders hospital discharge rate is 469.6 per 100,000, higher than Georgia's rate of 397.4 per 100,000. Of note, McIntosh County's hospital discharge rate of 672.5 per 100,000 as well as Glynn County's rate of 632.3 are the highest in the district, and about 1.4 times and 1.6 times the CHD and Georgia average rates, respectively.

Figure 75: Age-Adjusted All Other Mental and Behavioral Disorders Rate, by County, 2018-2022

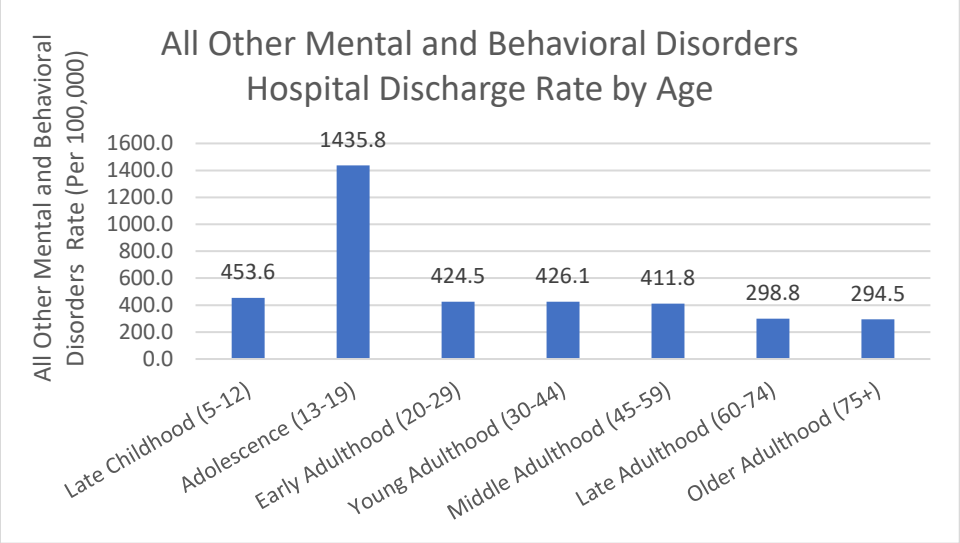


Source: OASIS

All Other Mental and Behavioral Disorders Rate: Demographics

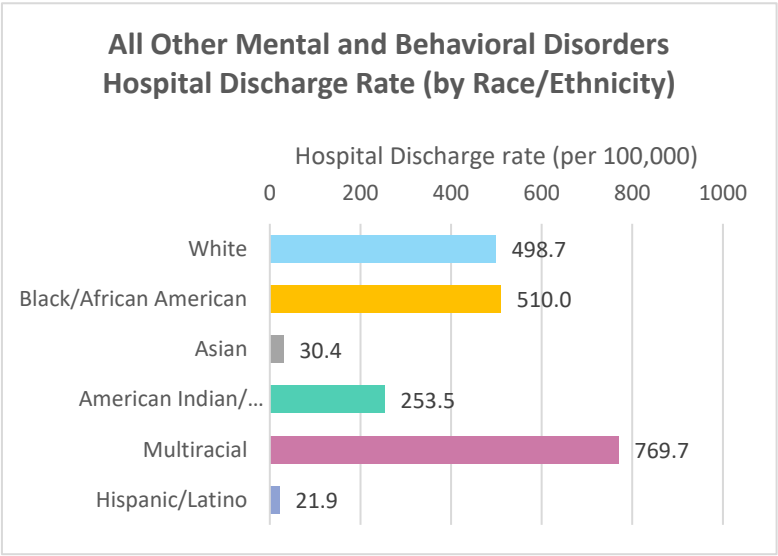
The figures below show the 2018-2022 Coastal Health District hospital discharge rate for all other mental and behavioral disorders broken down by age, race/ethnicity, and sex. Due to data suppression, hospital discharge rates could not be presented for 0–5-year-olds. Additionally, the hospital discharge rate for Native Hawaiian/Pacific Islanders was 0.0 and thus was not included in the graph. All other mental and behavioral disorders rates are highest in the following subpopulations: adolescents (13–19-year-olds), Multiracial individuals, and females.

Figure 76: All Other Mental and Behavioral Disorders Rate by Age, CHD, 2018-2022



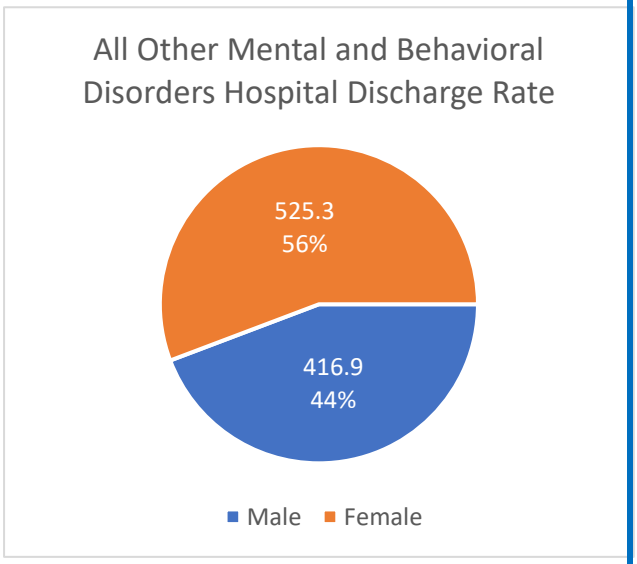
Source: OASIS

Figure 77: Age-Adjusted All Other Mental & Behavioral Disorders, by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 78: Age-Adjusted All Other Mental & Behavioral Disorders, by Sex, CHD, 2018-2022



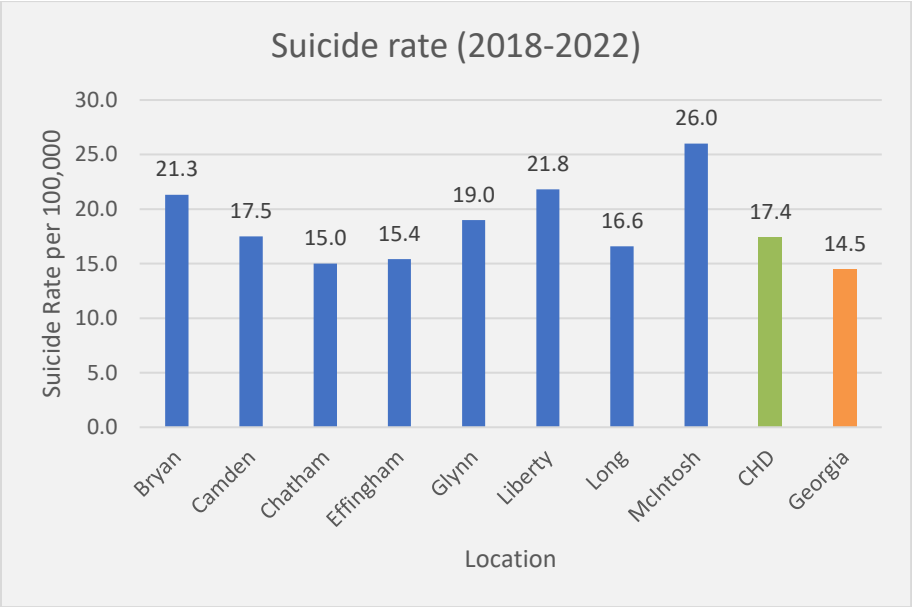
Source: OASIS

Suicide

Suicide Rate

Suicide, i.e., intentional self-harm resulting in death, is often a result of either other/unspecified firearm discharge, hanging, strangulation, or suffocation. CHD's suicide rate is 17.4 per 100,000, higher than Georgia's rate of 14.5 per 100,000. Of note, McIntosh County's suicide rate of 26.0 per 100,000 is the highest in the district and nearly 1.5 times and 2.0 times the CHD and Georgia average rates, respectively.

Figure 79: Age-Adjusted Suicide Rate, by County, 2018-2022

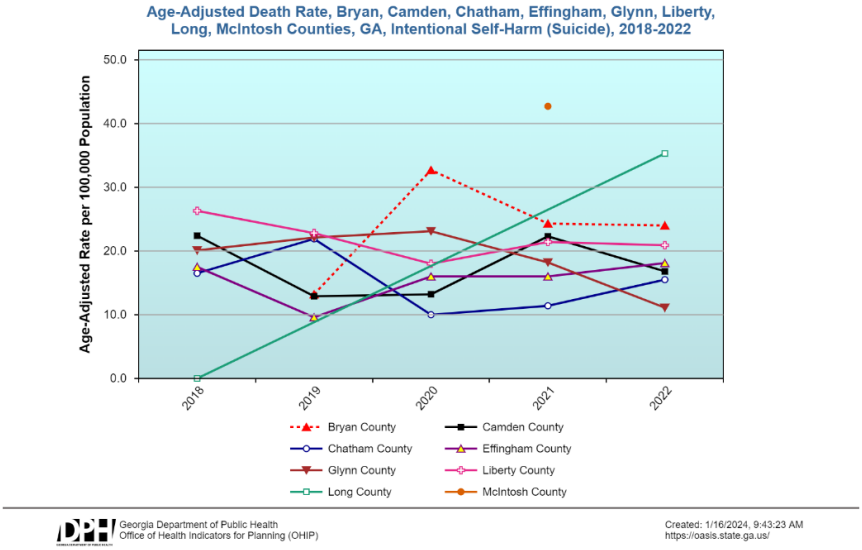


Source: OASIS

Suicide Rate: 5-Year Trends

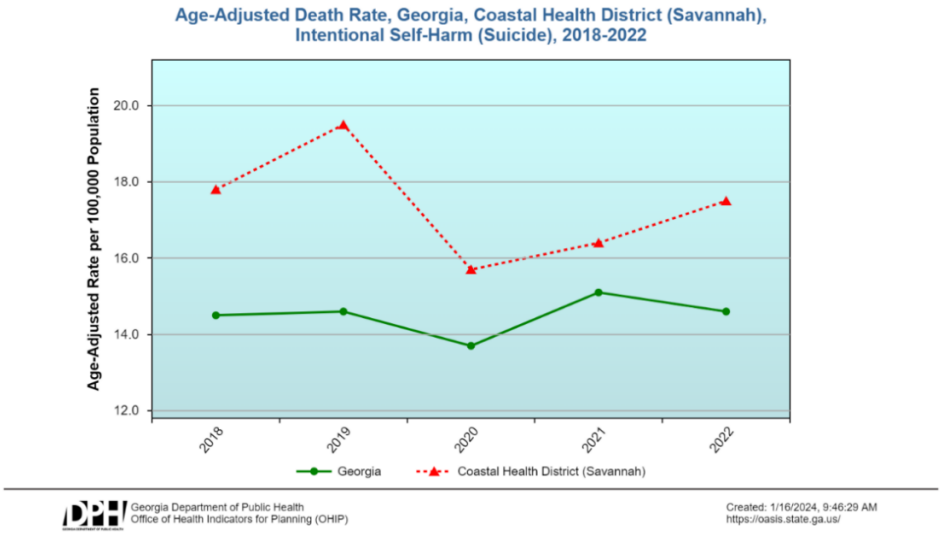
The figures below show trend lines for suicide death rates over the five years of 2018-2022. Due to data suppression, trend lines are not available for certain years for the counties, including 4 out of 5 of McIntosh's years. Effingham County and Long County show a continuing upward trend across most of the five years; Chatham County also has an upward trend from 2020-2022. While at a lower rate, both the CHD and Georgia show similar trends in suicide death rates, including a spike in 2019 and a noticeable drop in 2020, followed by a surge in 2021.

Figure 80: Age-Adjusted Suicide Rates, by County, 5-year trends, 2018-2022



Source: OASIS

Figure 81: Age-Adjusted Suicide Rates, CHD & GA, 5-year trends, 2018-2022

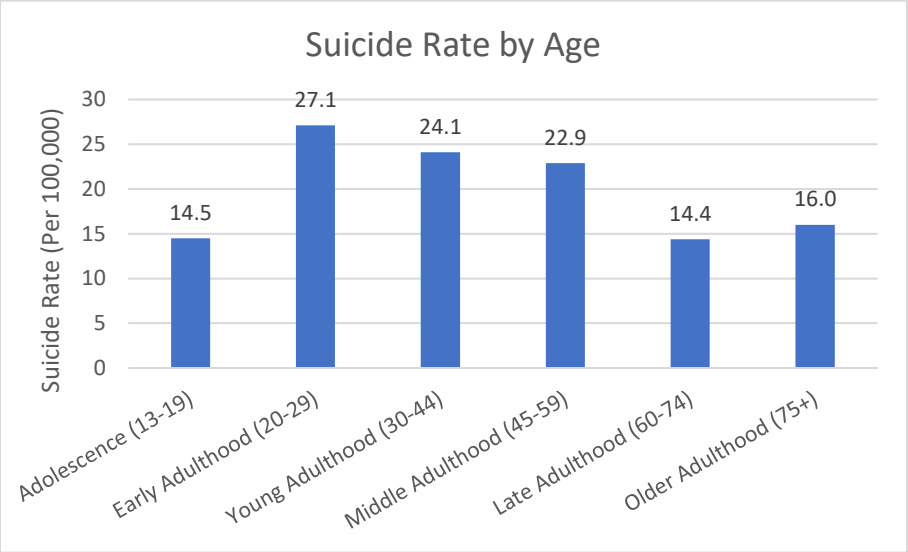


Source: OASIS

Suicide Rate: Demographics

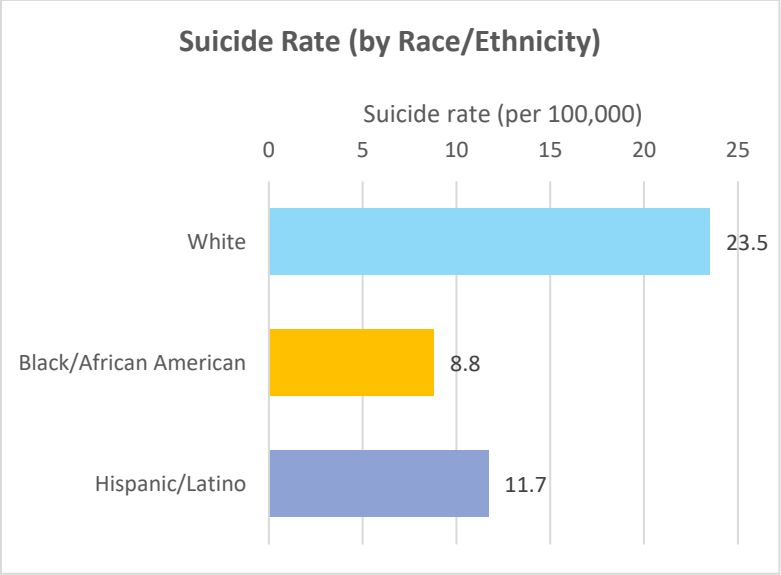
The figures below show the CHD 2018-2022 suicide rate broken down by age and race/ethnicity. Due to data suppression, suicide rates could not be presented for 5-12 year-olds, Asians, American Indians/Alaska Natives, Native Hawaiians/Pacific Islanders, or Multiracial individuals. Additionally, the suicide rate for 0-4 year olds was 0.0 and thus was not included in the graph. Suicide rates are highest in the following subpopulations: early adults (20-29 year-olds), Whites, and males.

Figure 82: Suicide Rate by Age, CHD, 2018-2022



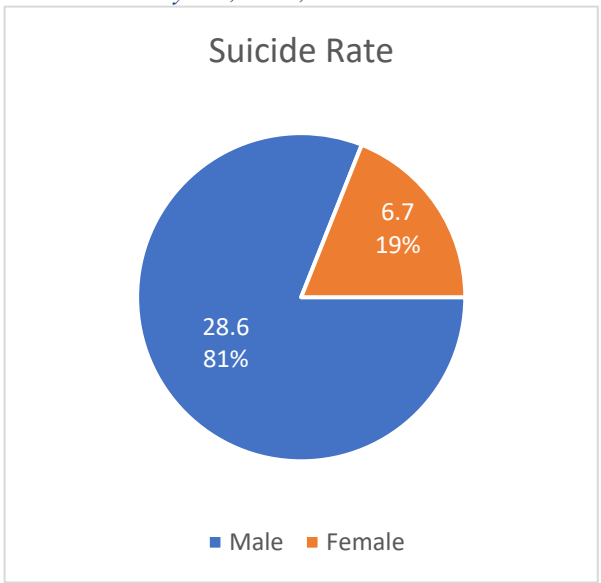
Source: OASIS

Figure 83: Age-Adjusted Suicide Rate by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 84: Age-Adjusted Suicide Rate by Sex, CHD, 2018-2022



Source: OASIS

Substance Use and Abuse

Smoking

Cigarette smoking can lead to long-term health problems such as various cancers, cardiovascular diseases, respiratory conditions, as well as low birthweight. Secondhand smoke and e-cigarettes can also lead to increased health problems.

The table below lists the percentage of age-adjusted adults who are current cigarette smokers in the most recent year data was available, 2020. Adult smoking is defined as the percentage of the adult population in a county who report that they currently smoke every day or some days and have smoked at least 100 cigarettes in their lifetime. Long County and McIntosh County have higher percentages of age-adjusted adults who are current smokers compared to the CHD, the state of Georgia, and the United States. Bryan County is the only county with the same percentage of age-adjusted adults who are current smokers as Georgia and the United States.

Figure 85: Percentage of Adult Smokers by County, 2020

Location	Adult Cigarette Smokers
Bryan County	16%
Camden County	19%
Chatham County	16%
Effingham County	18%
Glynn County	19%
Liberty County	20%
Long County	23%
McIntosh County	21%
Georgia	16%
United States	16%

Source: County Health Rankings & Roadmaps

Drinking

Drinking too much alcohol, or excessive drinking, can contribute to chronic diseases or adverse health outcomes. According to the CDC, binge drinking has been associated with many health problems, including unintentional injuries, violence, sexually transmitted diseases, poor pregnancy outcomes, fetal alcohol spectrum disorders, cancers, and chronic conditions such as high blood pressure, heart disease, stroke, and liver disease [43].

The table below lists the age-adjusted percentage of adults who reported binge or heavy drinking for the most current year of data available, 2020. Binge drinking is defined as having five or more drinks on one occasion for males and four or more drinks on one occasion for females. Georgia and the Coastal Health District report lower percentages of binge or heavy drinking compared to the United States. Liberty and Long County report the same percentage as Georgia; however, the rest of the CHD report higher binge or heavy drinking percentages.

Figure 86: Excessive Drinking Percentage by County, 2020

Location	Excessive Drinking
Bryan County	18%
Camden County	17%
Chatham County	17%
Effingham County	18%
Glynn County	17%
Liberty County	16%
Long County	16%
McIntosh County	17%
Georgia	16%
United States	19%

Source: County Health Rankings & Roadmaps

The table below lists the percentage of motor vehicle crash deaths that involved alcohol for 2016-2020. Liberty County and McIntosh County are substantially higher than the Coastal Health District and the United States. The only county trending as low as Georgia is Long County.

Figure 87: Percentage of Alcohol-Impaired Driving Deaths by County, 2016-2020

Location	Alcohol-Impaired Driving Deaths
Bryan County	26%
Camden County	22%
Chatham County	25%
Effingham County	23%
Glynn County	28%
Liberty County	33%
Long County	21%
McIntosh County	43%
Georgia	21%
United States	27%

Source: County Health Rankings & Roadmaps

Opioids

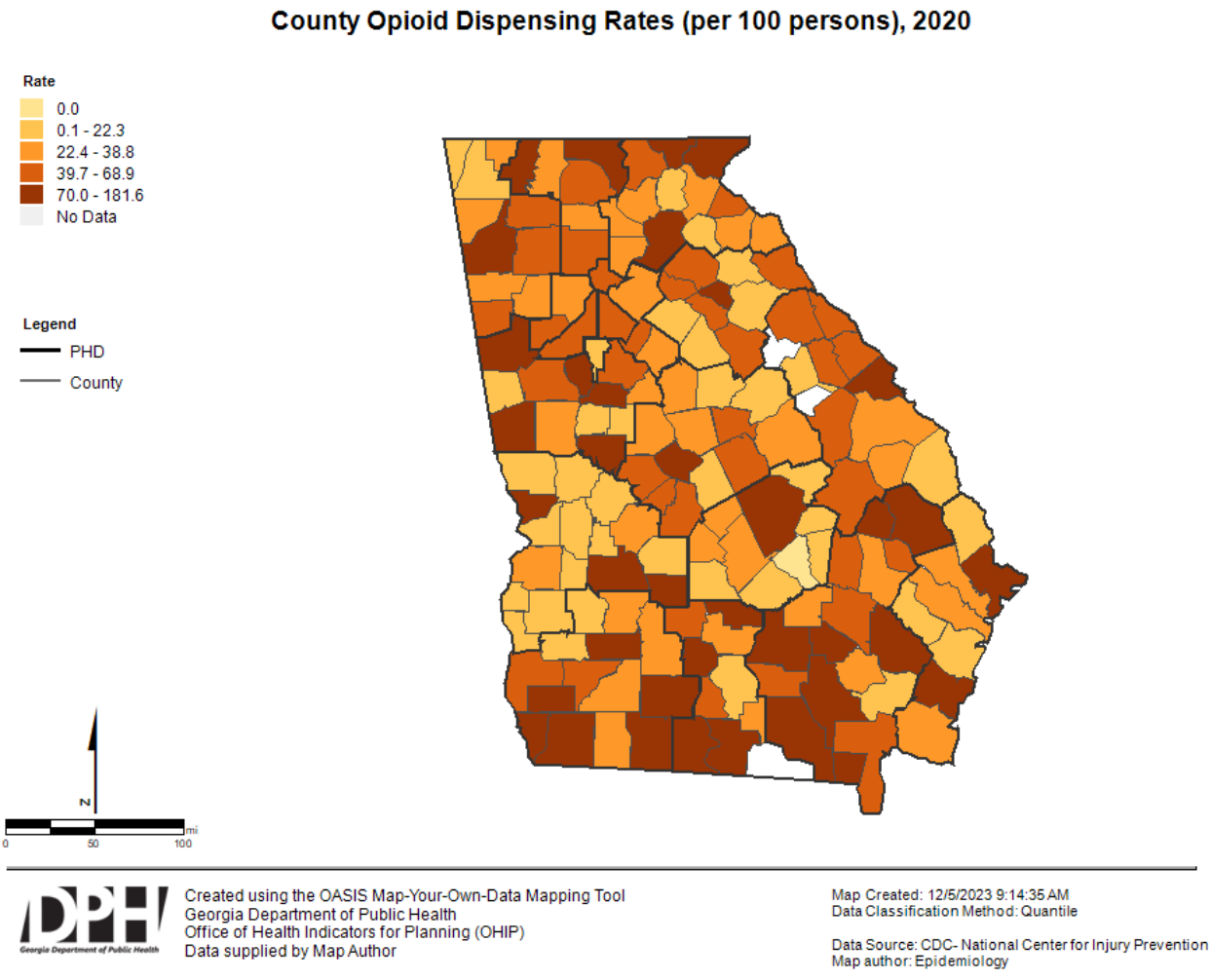
Opioids are defined as a class of drugs used to reduce or relieve pain. Common prescription opioids prescribed to treat moderate or severe pain include codeine, hydrocodone (Vicodin), morphine, oxycodone, and fentanyl. Prescription opioids prescribed by a healthcare provider are generally considered safe; however, some people misuse opioids by taking more medication than necessary, taking someone else's medication, taking prescription opioids to get high, or polysubstance use. Misusing opioids puts a person at risk of overdose. An overdose can occur when a person consumes a toxic amount of a substance or multiple substances. Overdoses can cause many adverse health outcomes, including death [44]. Numerous drug types can cause an overdose. Common examples include alcohol, opioids, benzodiazepines, and stimulants. Overdoses, particularly those involving opioids, have increased significantly in recent years [44].

County Opioid Dispensing Rates

Georgia first saw a rise in opioid-involved overdoses with the increased use and misuse of prescription opioids. Additionally, illicit opioids such as fentanyl and heroin further established a sharp increase in opioid-involved overdose deaths.

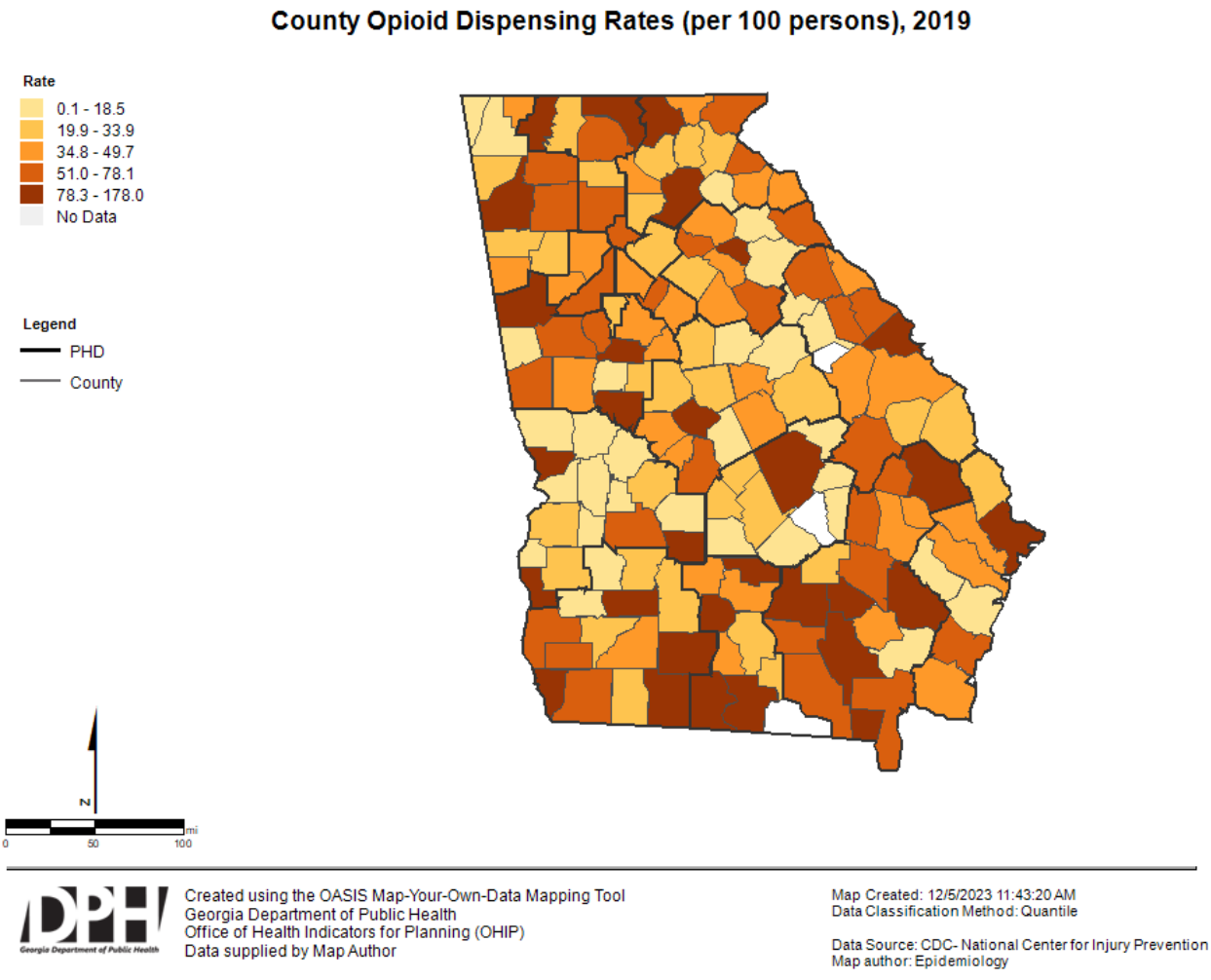
The map below displays the geographic distribution of the opioid dispensing rates (per 100 persons) for the most current year available, 2020. The rate is calculated as retail opioid prescriptions dispensed for every 100 persons for the 2020 year. The data does not include mail-order prescriptions. In 2020, Chatham County and Glynn County had the highest opioid dispensing rates per 100 persons, while Long County and McIntosh County had the lowest rates. However, data collection methods changed in 2019, offering additional interpretation. Beginning in 2019, the CDC's National Center for Injury Prevention and Control began categorizing dispensing rates based on the location of the prescriber rather than the pharmacy. In 2018, Glynn County had the highest opioid prescribing rate based on the pharmacy. However, in 2019, when the opioid dispensing rate changed to the location of the prescriber, Chatham County had the highest rate.

Figure 88: County Opioid Dispensing Rates (per 100 persons), 2020



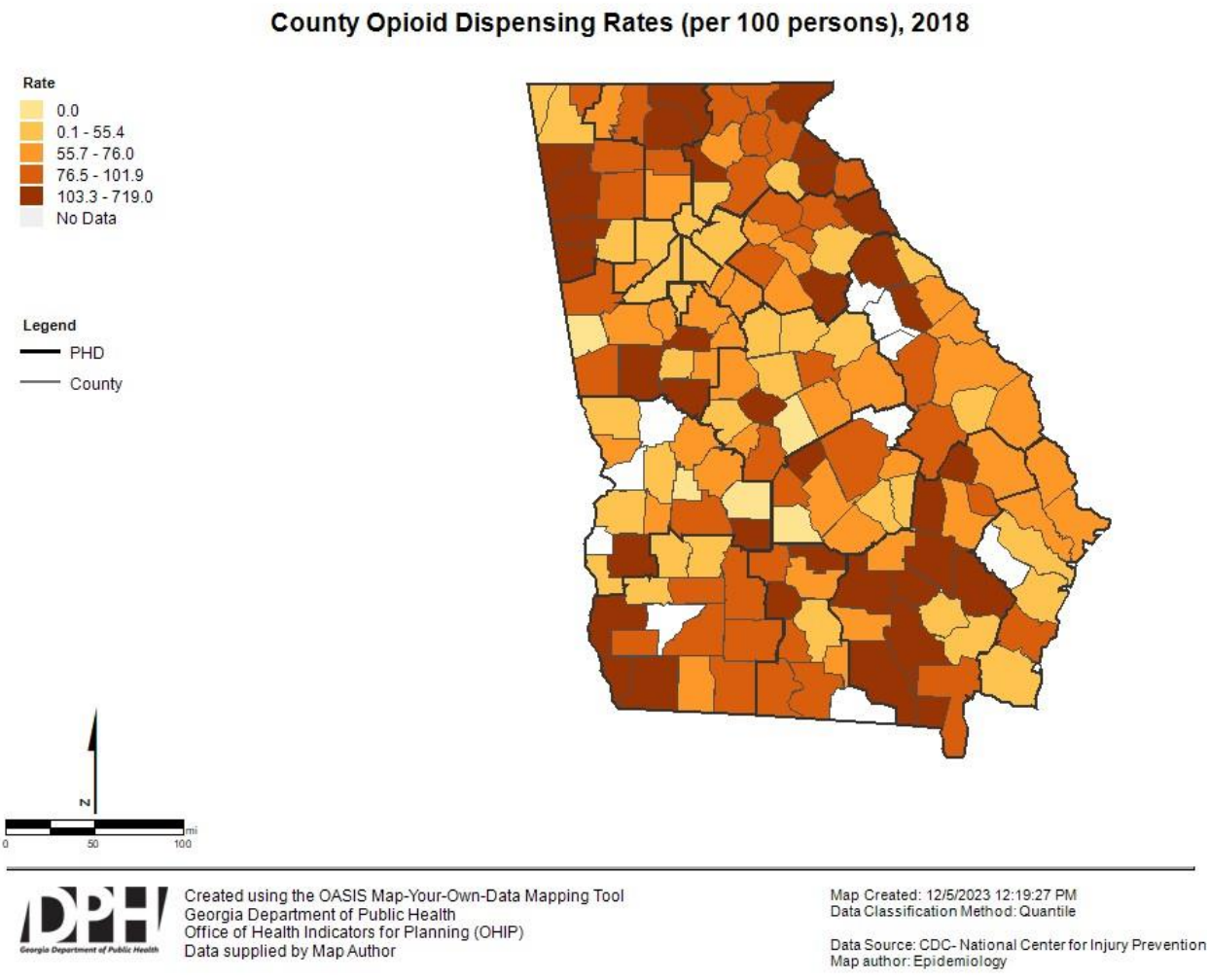
Source: CDC- National Center for Injury Prevention and Control

Figure 89: County Opioid Dispensing Rates (per 100 persons), 2019



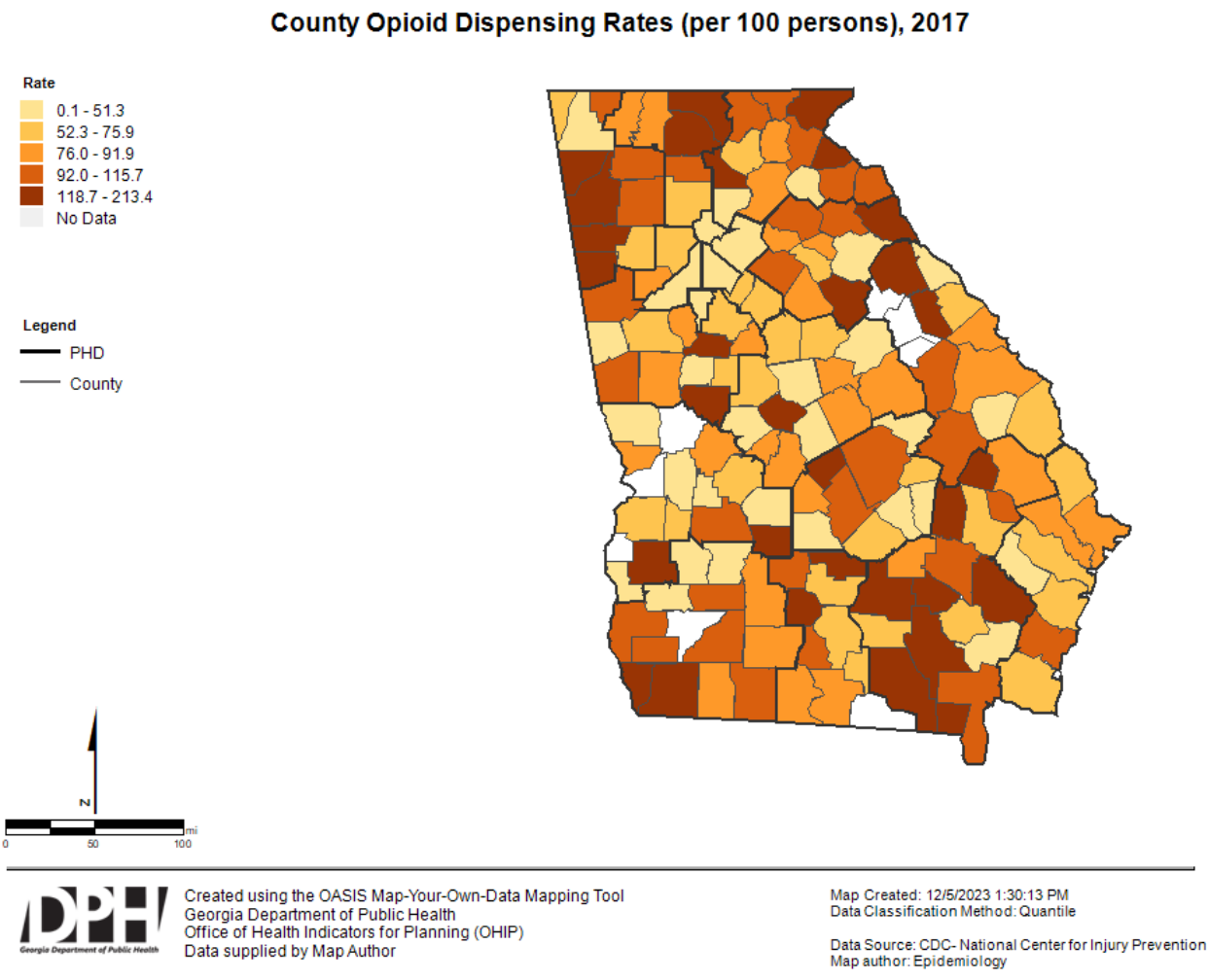
Source: CDC- National Center for Injury Prevention and Control

Figure 90: County Opioid Dispensing Rates (per 100 persons), 2018



Source: CDC- National Center for Injury Prevention and Control

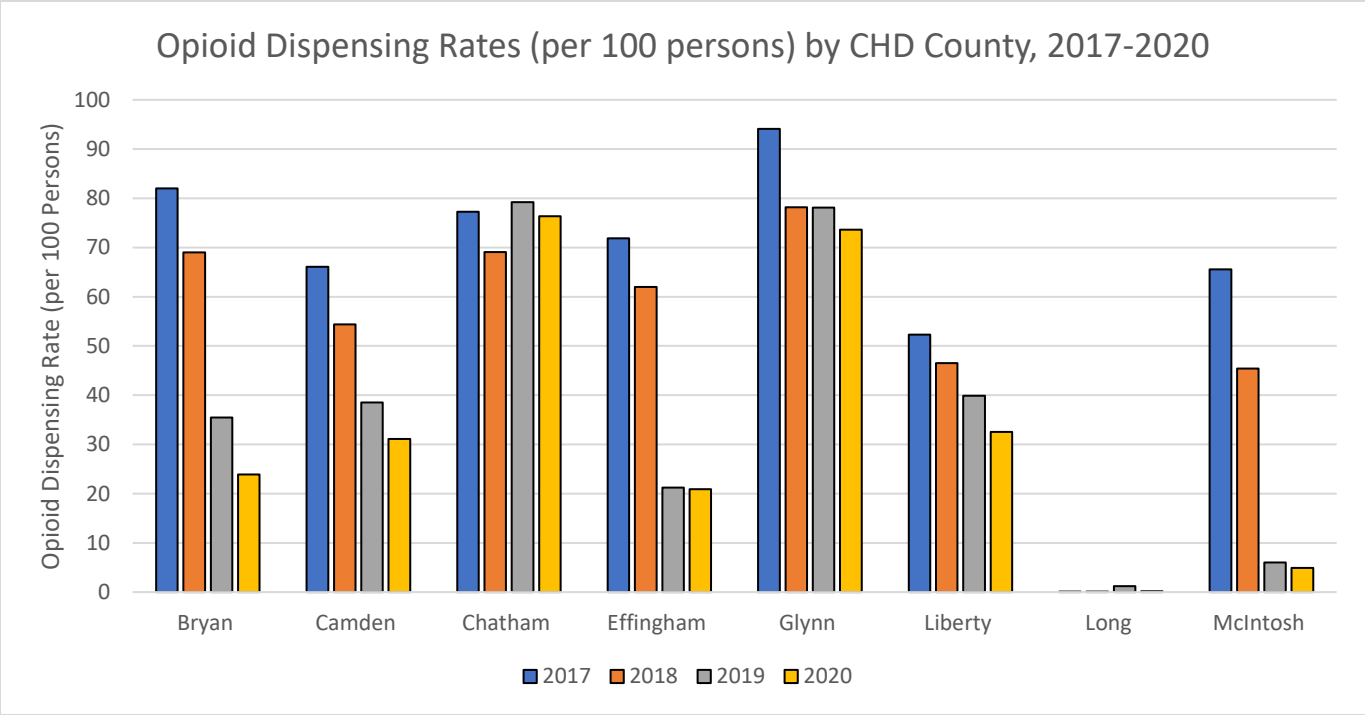
Figure 91: County Opioid Dispensing Rates (per 100 persons), 2017



Source: CDC- National Center for Injury Prevention and Control

Opioid dispensing rates are essential in tracking the opioid epidemic. The CHD's overall opioid dispensing rate has declined from 2017 to 2020 for every county apart from Chatham County and Long County. However, the data comes from retail pharmacies, which may explain the limited amount coming from the rural area of Long County in 2017 and 2018. The figure below demonstrates how changes in data classification methods in 2019 affected opioid dispensing rates for different counties. In 2019, Bryan County, Effingham County, and McIntosh County had significant decreases in their opioid dispensing rate, 48.55%, 65.81%, and 86.78%, respectively. Chatham County is the only county with an increase of 14.62% in 2019.

Figure 92: Opioid Dispensing Rates (per 100 persons) by CHD County, 2017-2020



Source: CDC- National Center for Injury Prevention and Control

Figure 93: Opioid Dispensing Rates (per 100 persons) by CHD County, 2017-2020

County	2017	2018	2019	2020
Bryan	82	69	35.5	23.871
Camden	66.1	54.4	38.5	31.108
Chatham	77.3	69.1	79.2	76.376
Effingham	71.9	62	21.2	20.911
Glynn	94.1	78.2	78.1	73.616
Liberty	52.3	46.5	39.9	32.574
Long	0.1	0.1	1.2	0.198
McIntosh	65.6	45.4	6	4.915

Source: CDC- National Center for Injury Prevention and Control

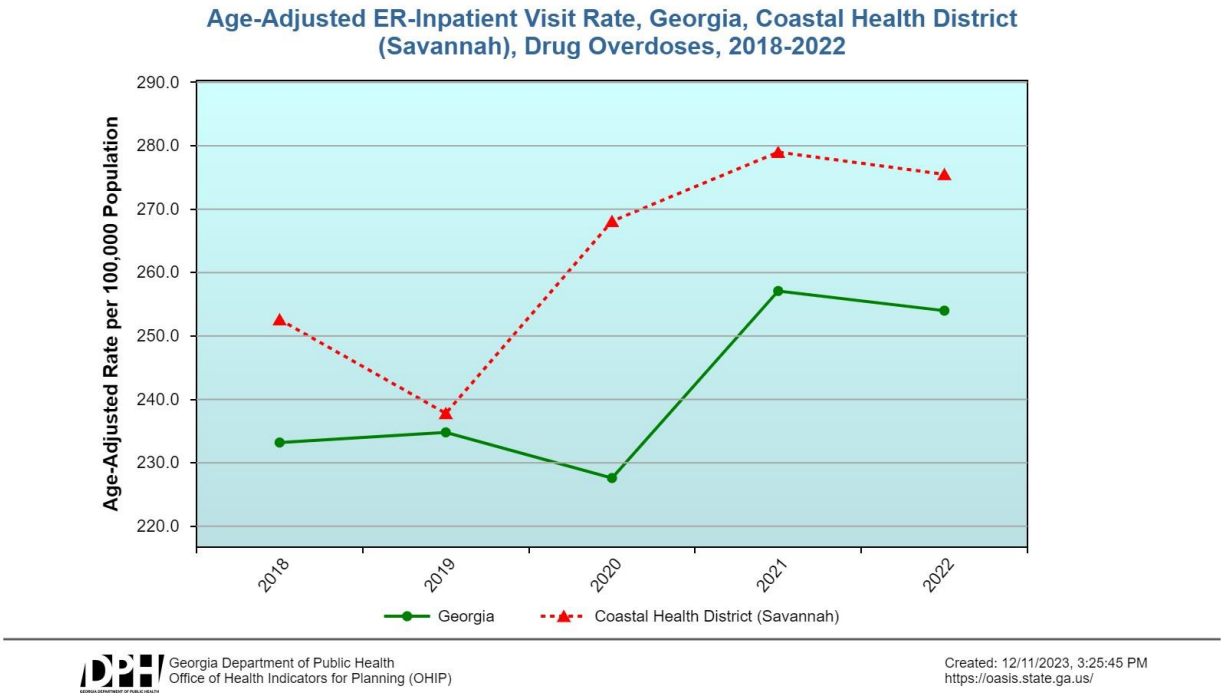
Drug Overdoses: ER Visits

Any Drug Except Alcohol

The figures below show the age-adjusted drug overdose ER visit rates in the Coastal Health District from 2018-2022. In this context, drug overdoses are any ER visit or hospitalization caused by acute poisoning, excluding alcohol. It may include over-the-counter, prescription, or illicit drugs.

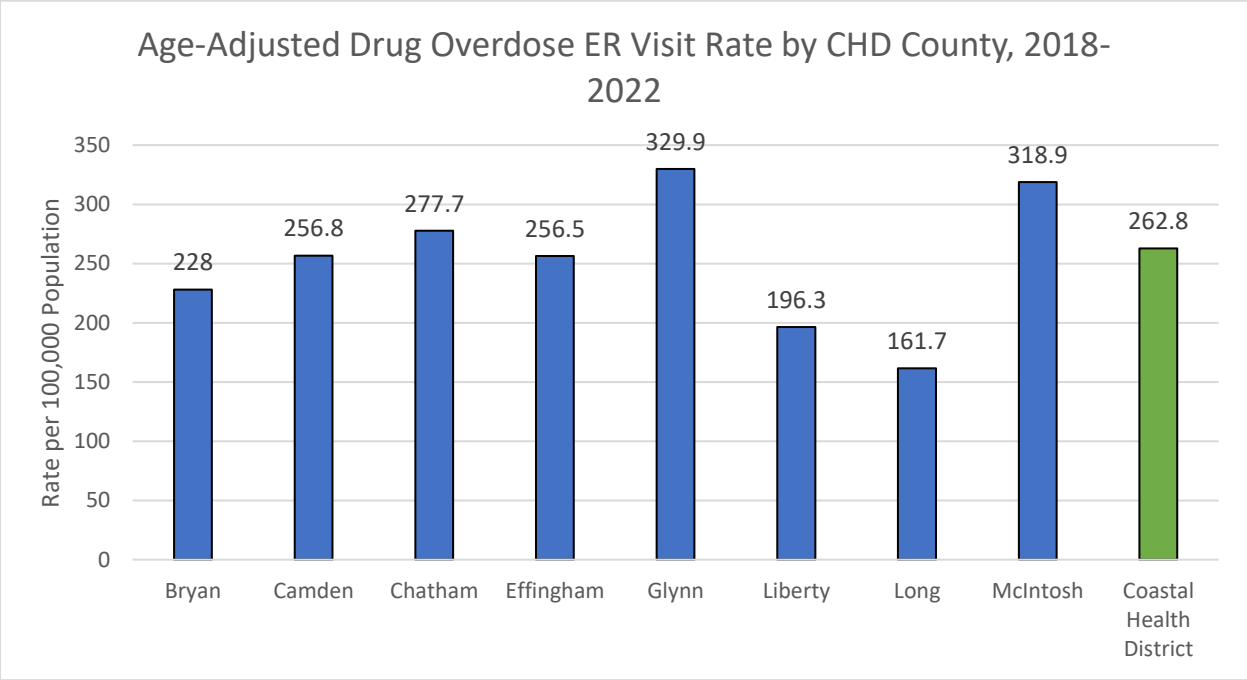
The first trend line compares age-adjusted drug overdose ER visits between Georgia and the Coastal Health District. The Coastal Health District's age-adjusted drug overdose ER visit rate is consistently higher than the state. From 2018 to 2019, the Coastal Health District's age-adjusted drug overdose ER visit rate decreased while Georgia's rate slightly increased, and from 2019 to 2020, the Coastal Health District's rate increased while Georgia's decreased. Glynn County had the highest age-adjusted drug overdose ER visit rate and Long County had the lowest age-adjusted drug overdose ER visit rate.

Figure 94: Age-Adjusted Drug Overdose ER Visit Rate, Georgia and CHD, 2018-2022



Source: OASIS

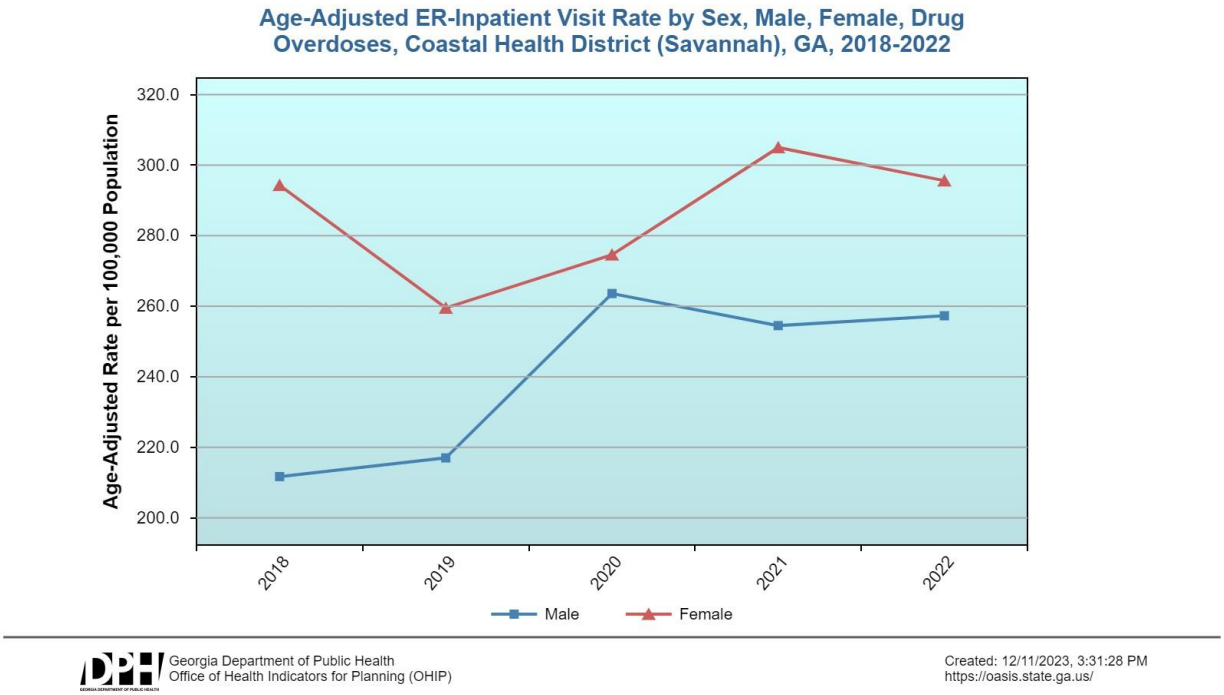
Figure 95: Age-Adjusted Drug Overdose ER Visit Rate by CHD County, 2018-2022



Source: OASIS

The following trend line displays the age-adjusted drug overdose ER visit rate by sex for the CHD. From 2018-2022, females had consistently higher rates of age-adjusted drug overdose ER visits. Males and females only followed the same positive relationship trend for 2019-2020.

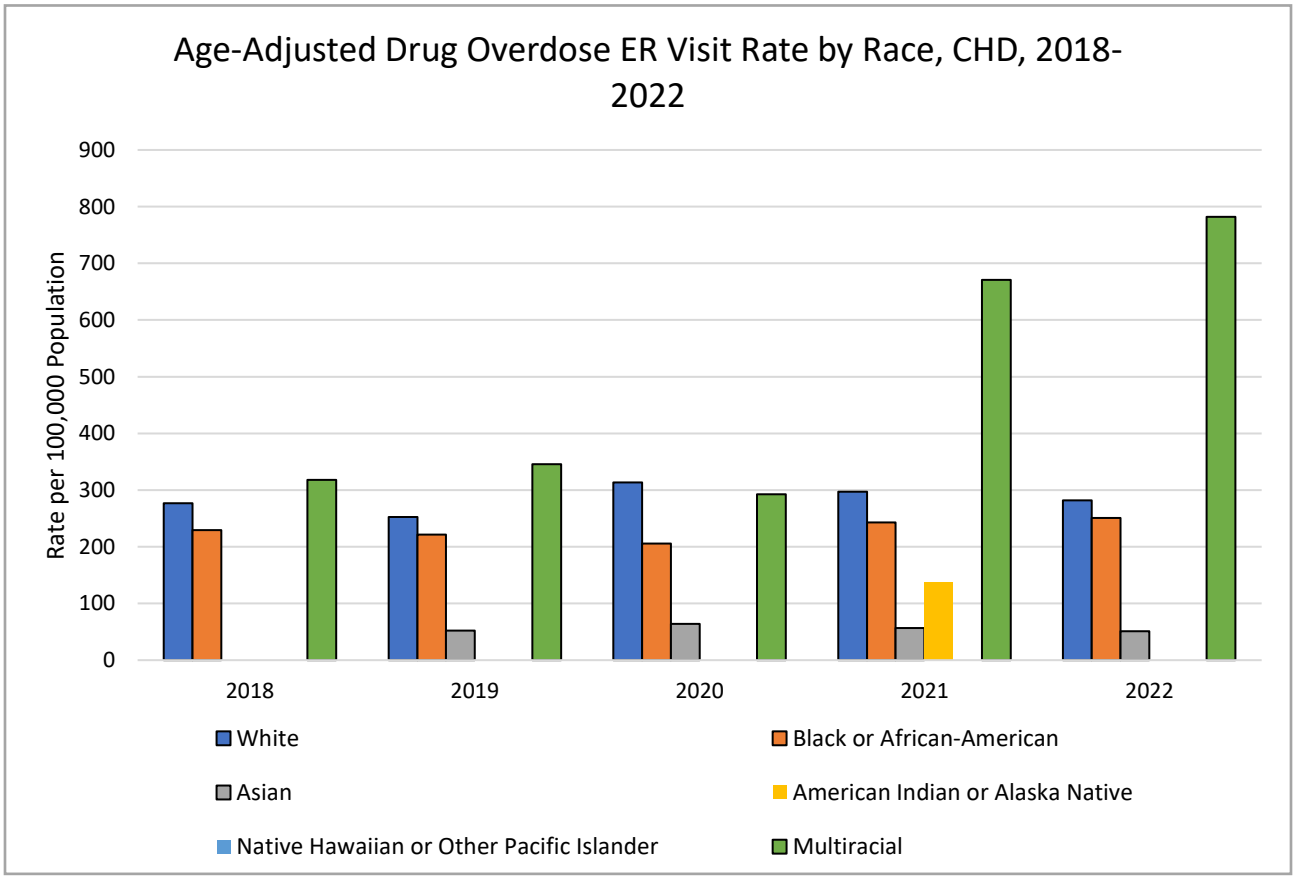
Figure 96: Age-Adjusted Drug Overdose ER Visit Rate by Sex, CHD, 2018-2022



Source: OASIS

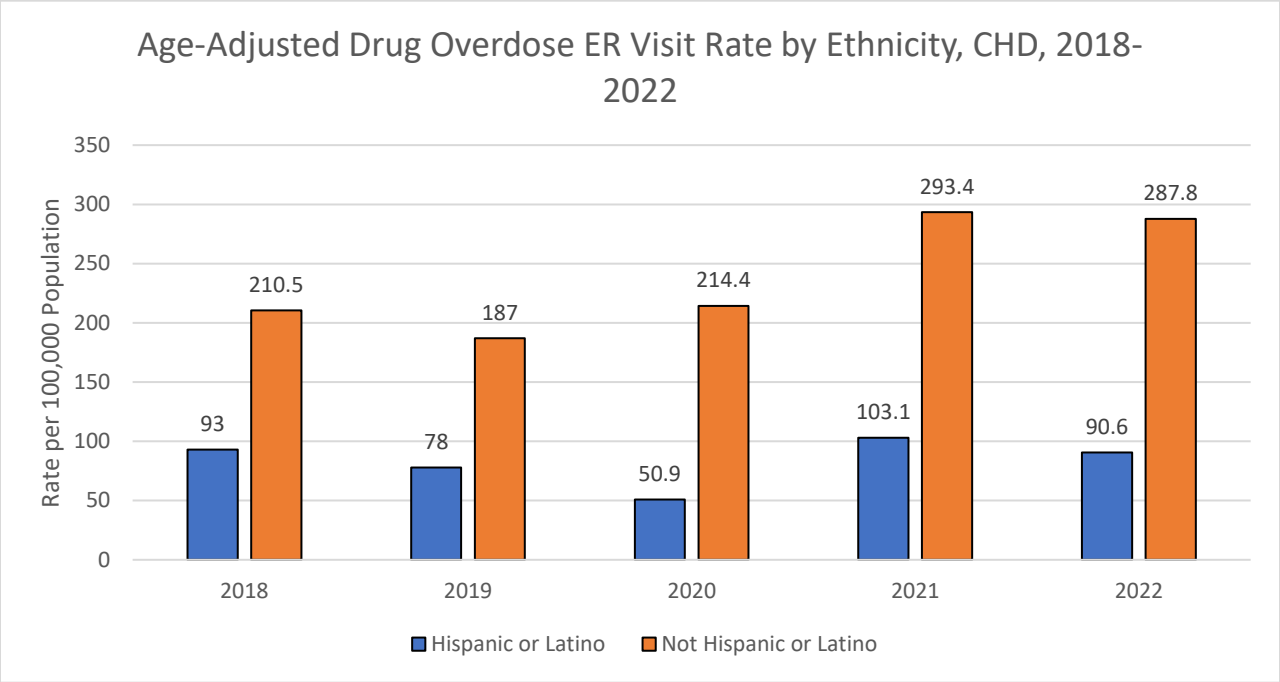
The following figures display the age-adjusted drug overdose ER visit rates by race and ethnicity. Age-adjusted rates were suppressed for Native Hawaiian or Other Pacific Islanders due to rates being too low. Age-adjusted drug overdose ER visit rates doubled in 2021 for Multiracial groups and Hispanic or Latino ethnicities. In 2021, age-adjusted drug overdose ER visit rates also increased by 36.84% for Hispanic or Latino persons.

Figure 97: Age-Adjusted Drug Overdose ER Visit Rate by Race, CHD, 2018-2022



Source: OASIS

Figure 98: Age-Adjusted Drug Overdose ER Visit Rate by Ethnicity, CHD, 2018-2022

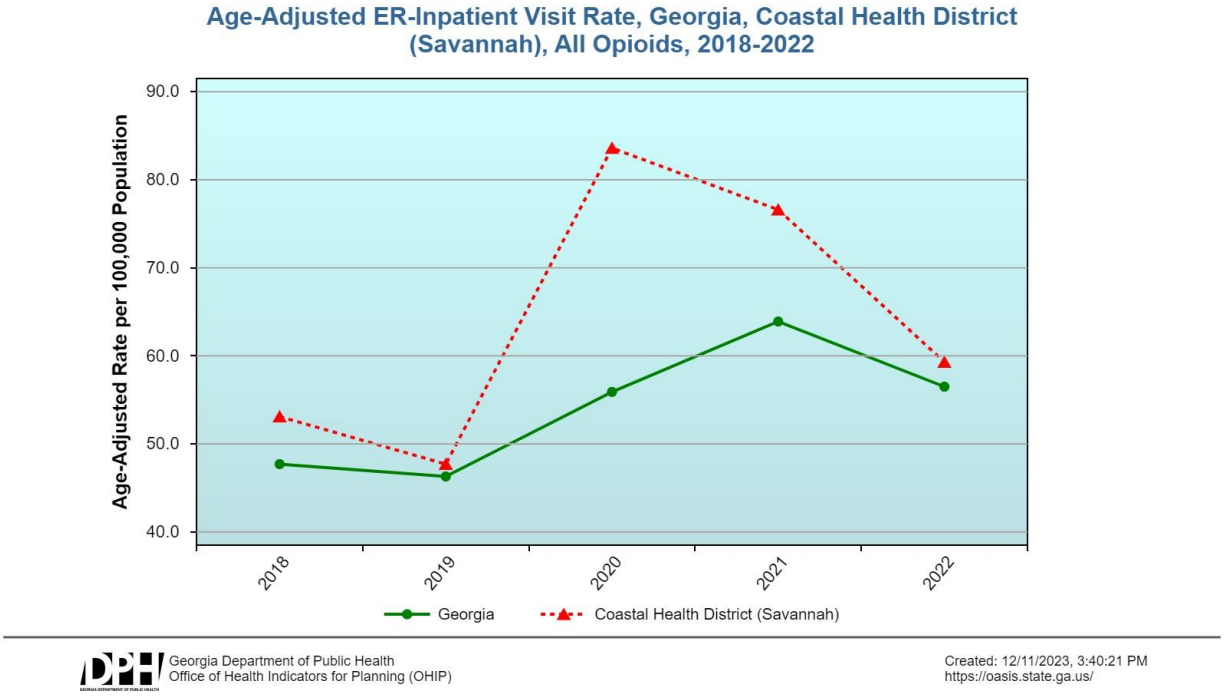


Source: OASIS

Opioid-Involved ER Visits

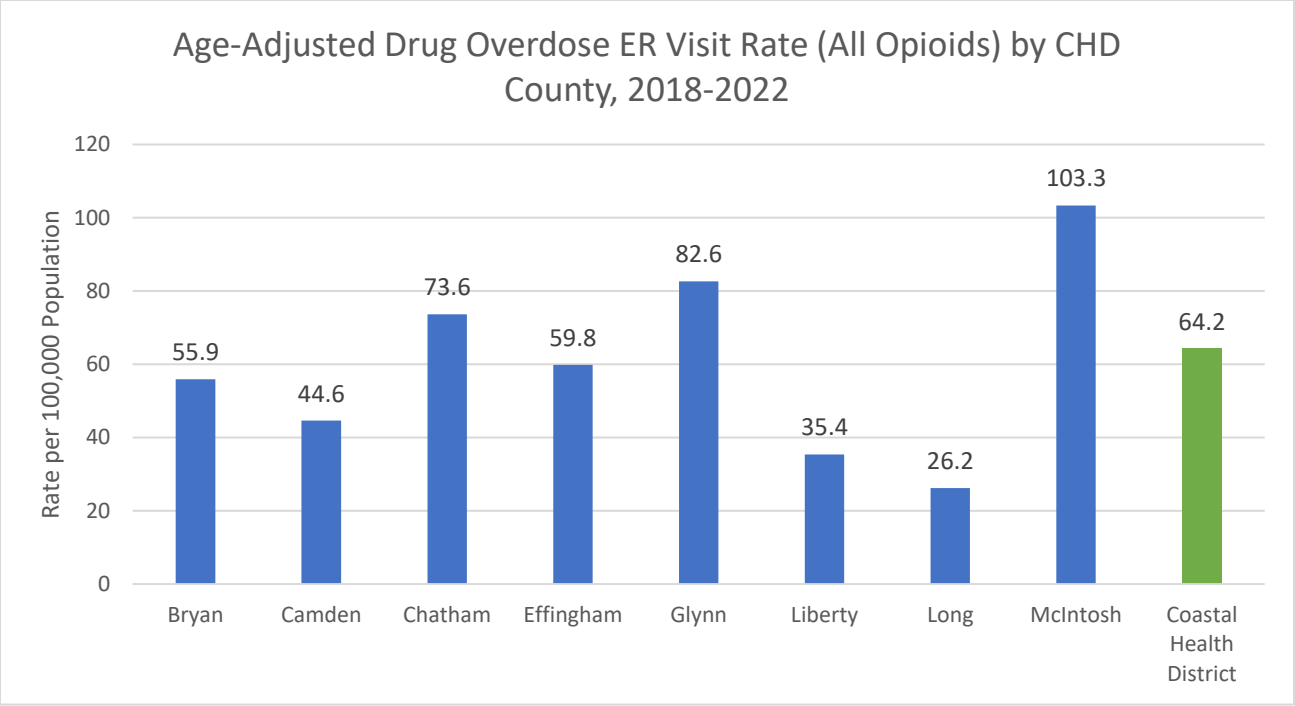
The following trend lines compare all drug overdose ER visits that specifically involve opioids. It's important to note that these do not include visits that result in an individual leaving against medical advice. The trend line shows that the Coastal Health District is consistently higher than the state for all age-adjusted drug overdose ER visits that involve opioids, with a peak in 2020. McIntosh County has a significantly higher age-adjusted drug overdose ER visit rate that involved opioids compared to other counties in the Coastal Health District. Long County had the lowest rate, 26.2 per 100,000 population.

Figure 99: Age-Adjusted Drug Overdose ER Visit Rate (All Opioids), Georgia and CHD, 2018-2022



Source: OASIS

Figure 100: Age-Adjusted Drug Overdose ER Visit Rate (All Opioids) by CHD County, 2018-2022



Source: OASIS

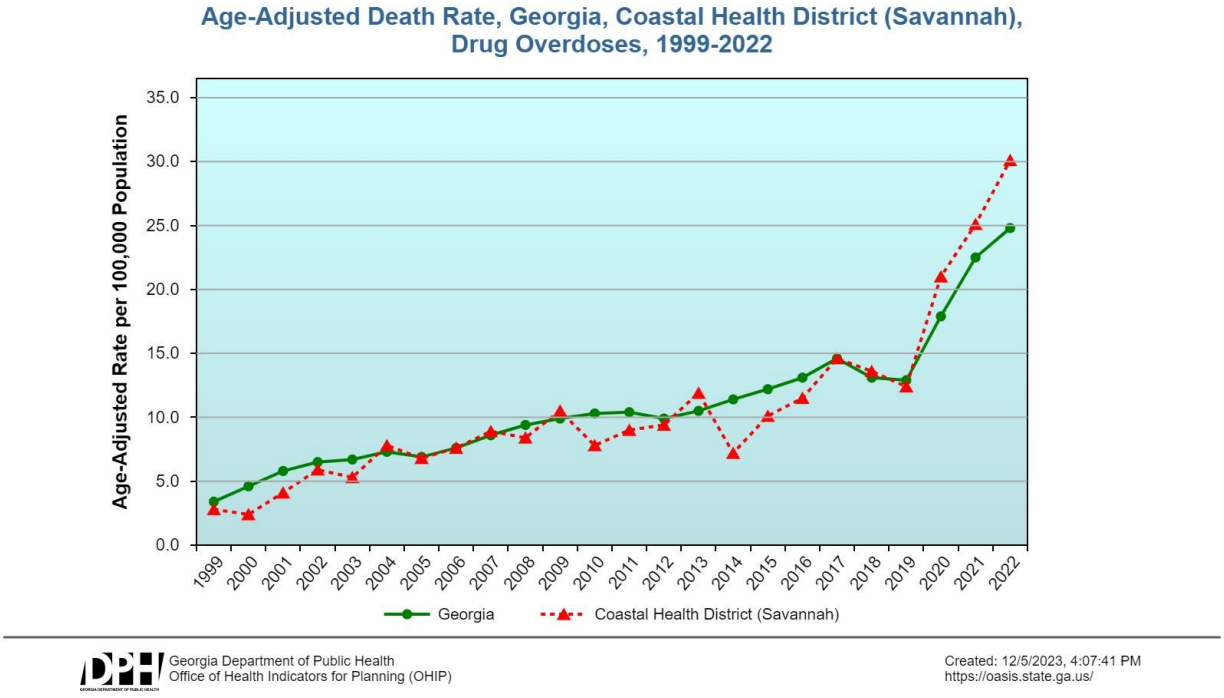
Drug Overdoses: Mortality

Any Drug Except Alcohol

There is more data compiled to analyze drug overdose mortality rates, which is why data was included for all years available, 1999-2022, for the age-adjusted drug overdose trend line. The Coastal Health District's age-adjusted mortality rate for all drug overdoses, including opioids, follows the same trend as the state beginning in 2014. Following the pandemic, the Coastal Health District and Georgia saw a steep rise in the age-adjusted drug overdose death rate. Glynn County had the highest age-adjusted drug overdose death rate and Long County had the lowest age-adjusted drug overdose death rate.

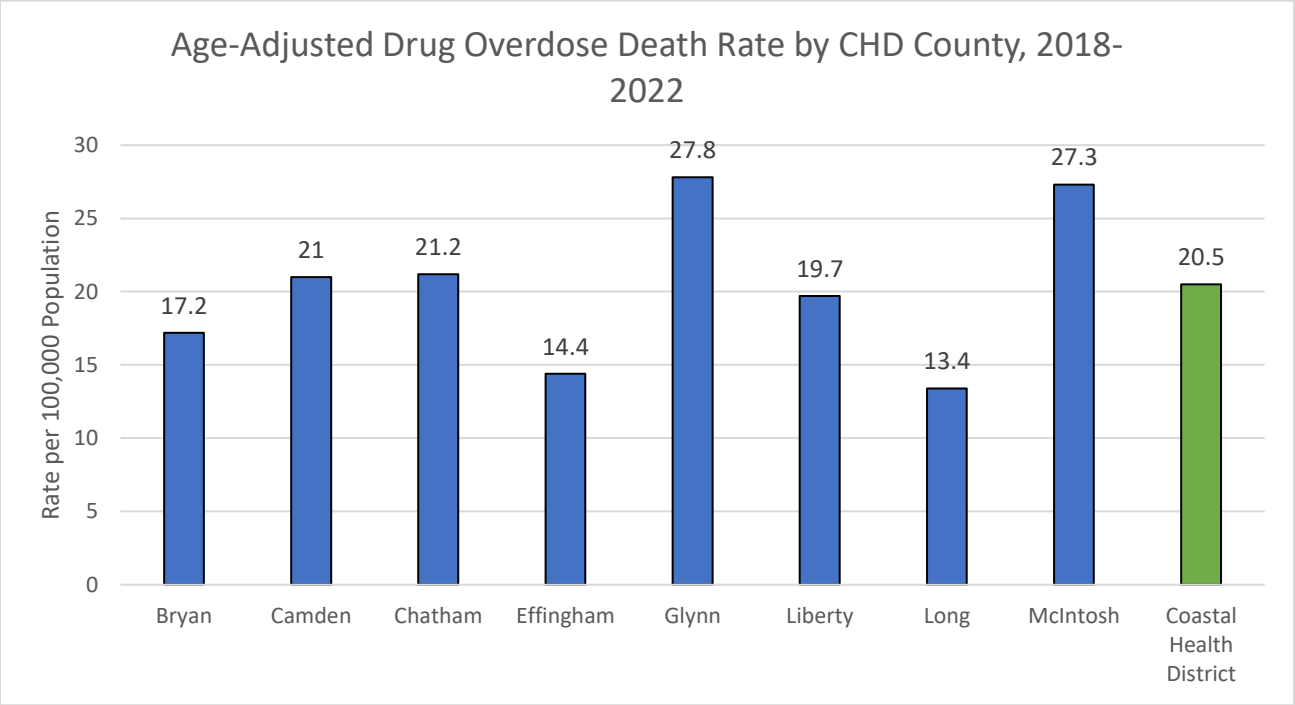
**See appendix for age-adjusted drug overdose death rate trends by CHD county from 2018-2022.*

Figure 101: Age-Adjusted Drug Overdose Death Rate, Georgia and CHD, 1999-2022



Source: OASIS

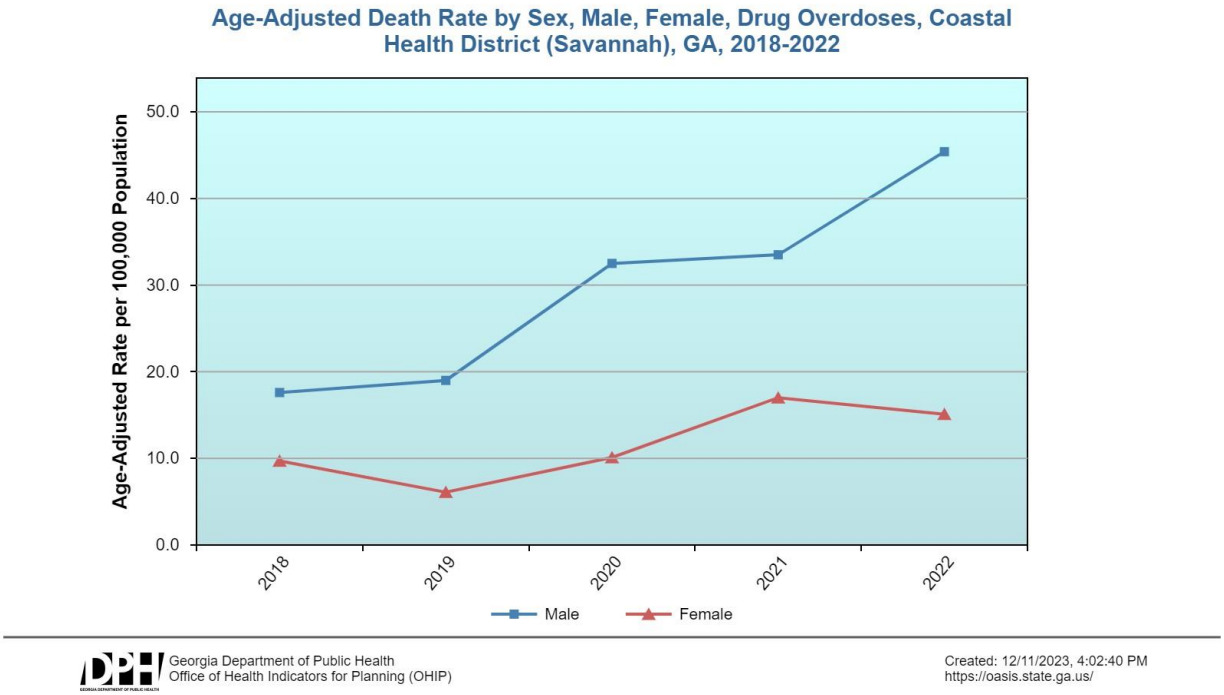
Figure 102: Age-Adjusted Drug Overdose Death Rate by CHD County, 2018-2022



Source: OASIS

The age-adjusted drug overdose death rate by sex expectedly contradicts the age-adjusted drug overdose ER visit rate by sex. The age-adjusted drug overdose death rate for males was higher than for females, with an upward trend from 2018-2022. From 2019-2021, females also had an upward trend in age-adjusted drug overdose death rates.

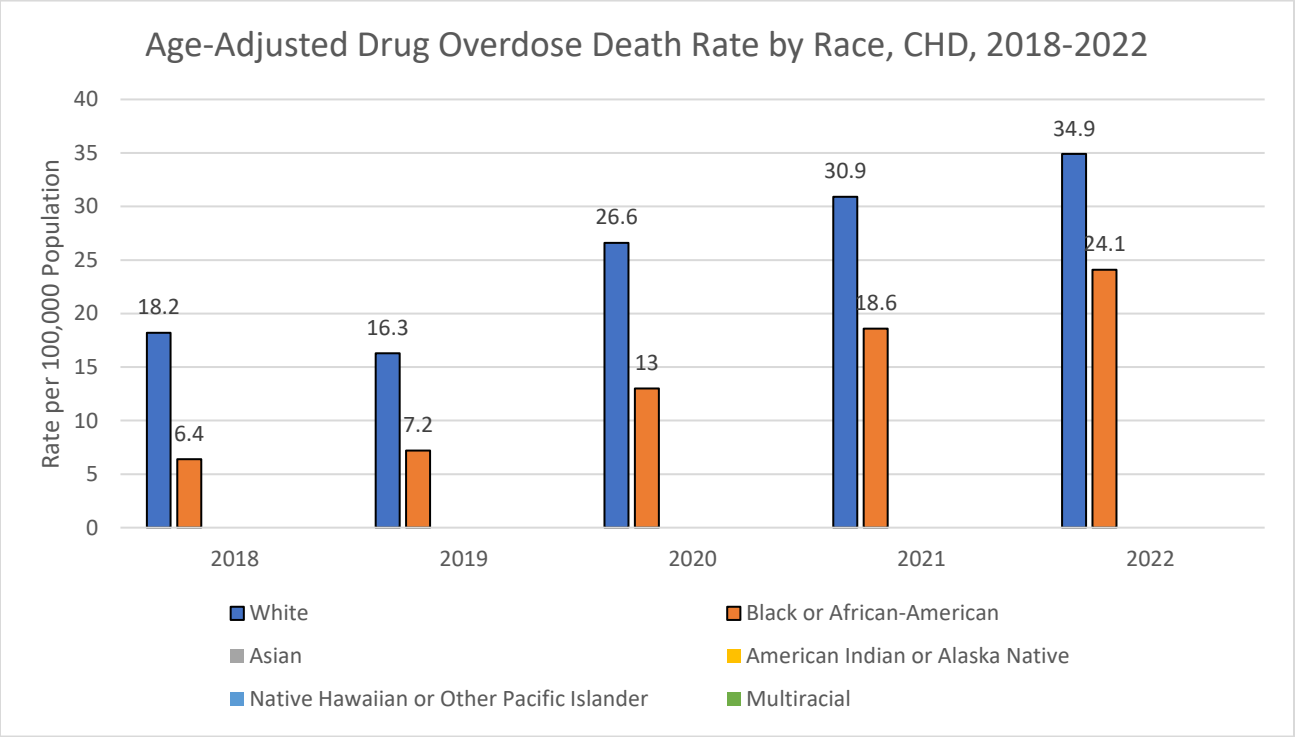
Figure 103: Age-Adjusted Drug Overdose Death Rate by Sex, CHD, 2018-2022



Source: OASIS

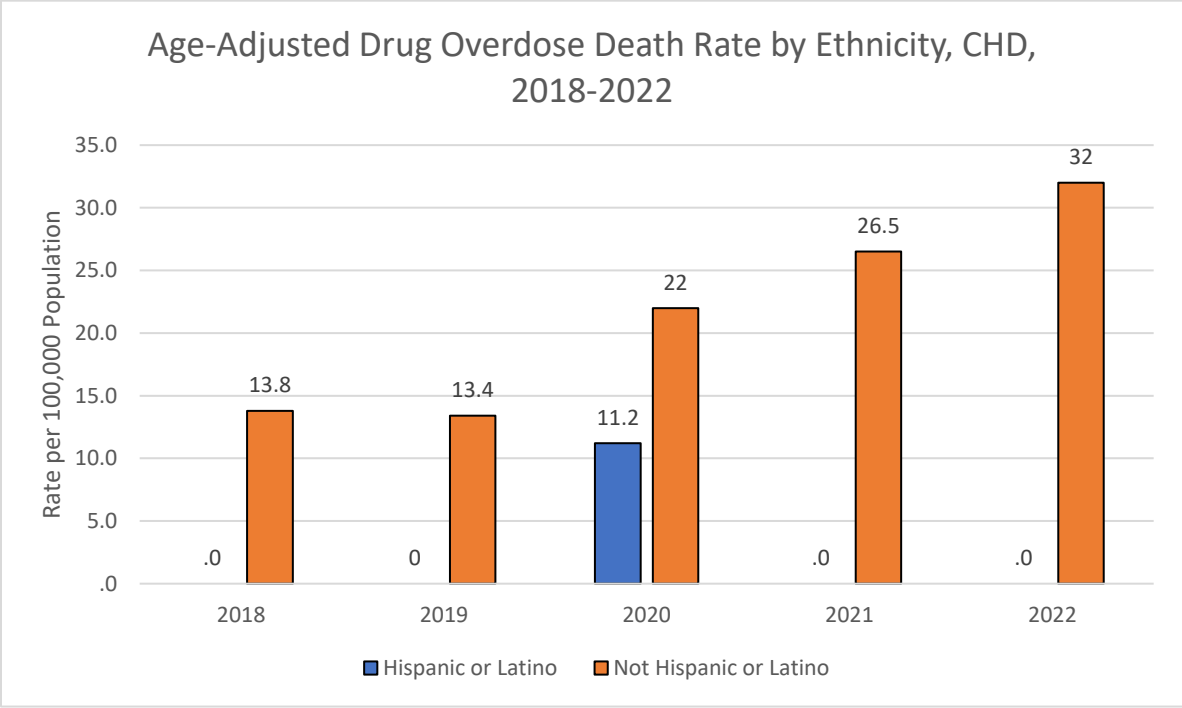
The following figures display the age-adjusted drug overdose death rates by race and ethnicity. Asian, Native Hawaiian or Other Pacific Islander, and Multiracial age-adjusted drug overdose death rates were suppressed due to numbers being too low. Black or African-American age-adjusted drug overdose death rates had an upward trend from 2018-2022, while white rates had a slight decrease from 2018-2019, followed by an upward trend. Hispanic or Latino age-adjusted drug overdose death rates were only mentioned in the year 2020, which was twice the rate for not Hispanic or Latino. For 2018, 2021, and 2022, the Hispanic or Latino rate was suppressed due to numbers being too low. In 2019, the Hispanic or Latino rate was 0.

Figure 104: Age-Adjusted Drug Overdose Death Rate by Race, CHD, 2018-2022



Source: OASIS

Figure 105: Age-Adjusted Drug Overdose Death Rate by Ethnicity, CHD, 2018-2022



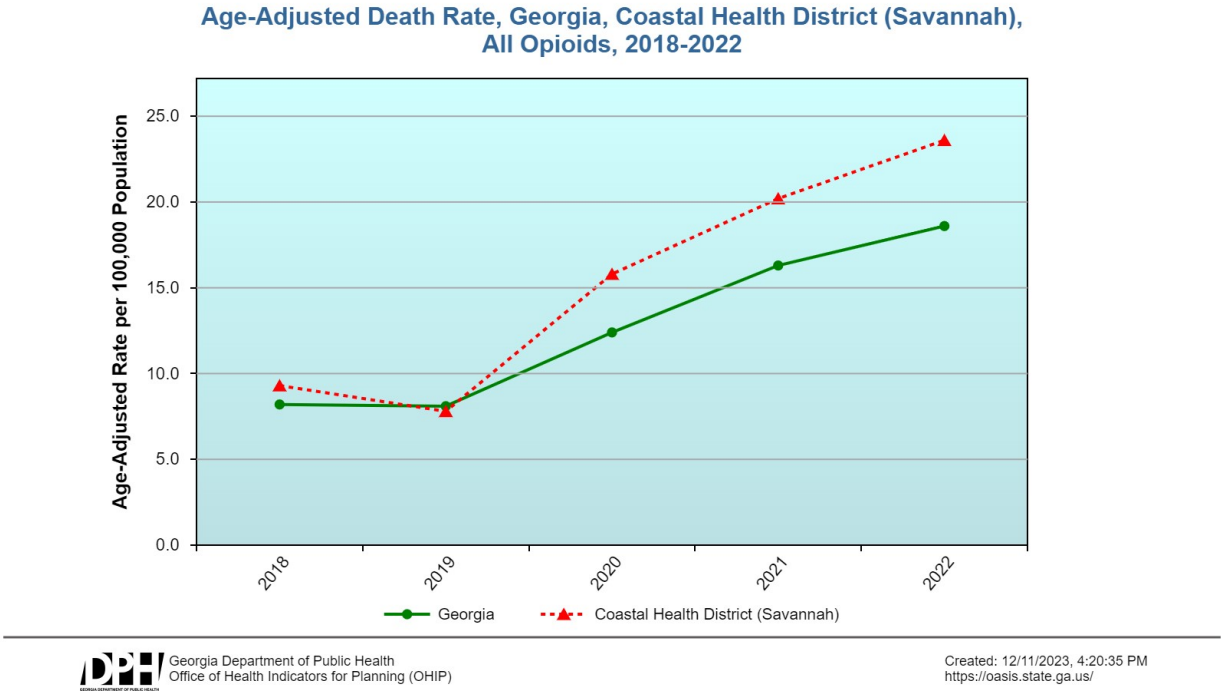
Source: OASIS

Opioid-Involved Mortalities

The following trend lines compare all opioid-involved mortalities. In 2019, the CHD was slightly lower than Georgia's age-adjusted opioid-involved death rate. From 2019-2022, Georgia and the CHD had an upward-trending age-adjusted opioid-involved death rate. McIntosh County had the highest age-adjusted drug overdose death rate that involved opioids and Long County had the lowest.

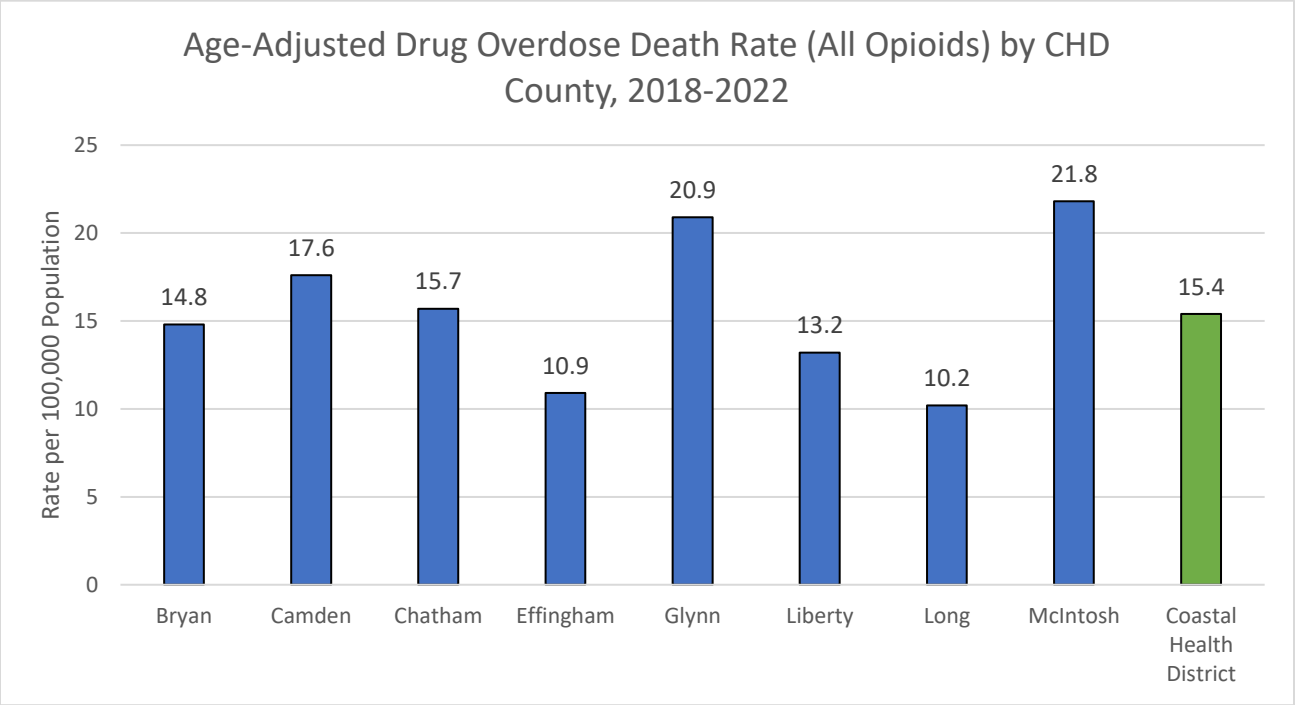
**See appendix for comparison of age-adjusted death rate for drug overdoses compared to opioid overdoses in the CHD from 2018-2022, as well as, by CHD county.*

Figure 106: Age-Adjusted Drug Overdose Death Rate (All Opioids), Georgia and CHD, 2018-2022



Source: OASIS

Figure 107: Age-Adjusted Drug Overdose Death Rate (All Opioids) by CHD County, 2018-2022



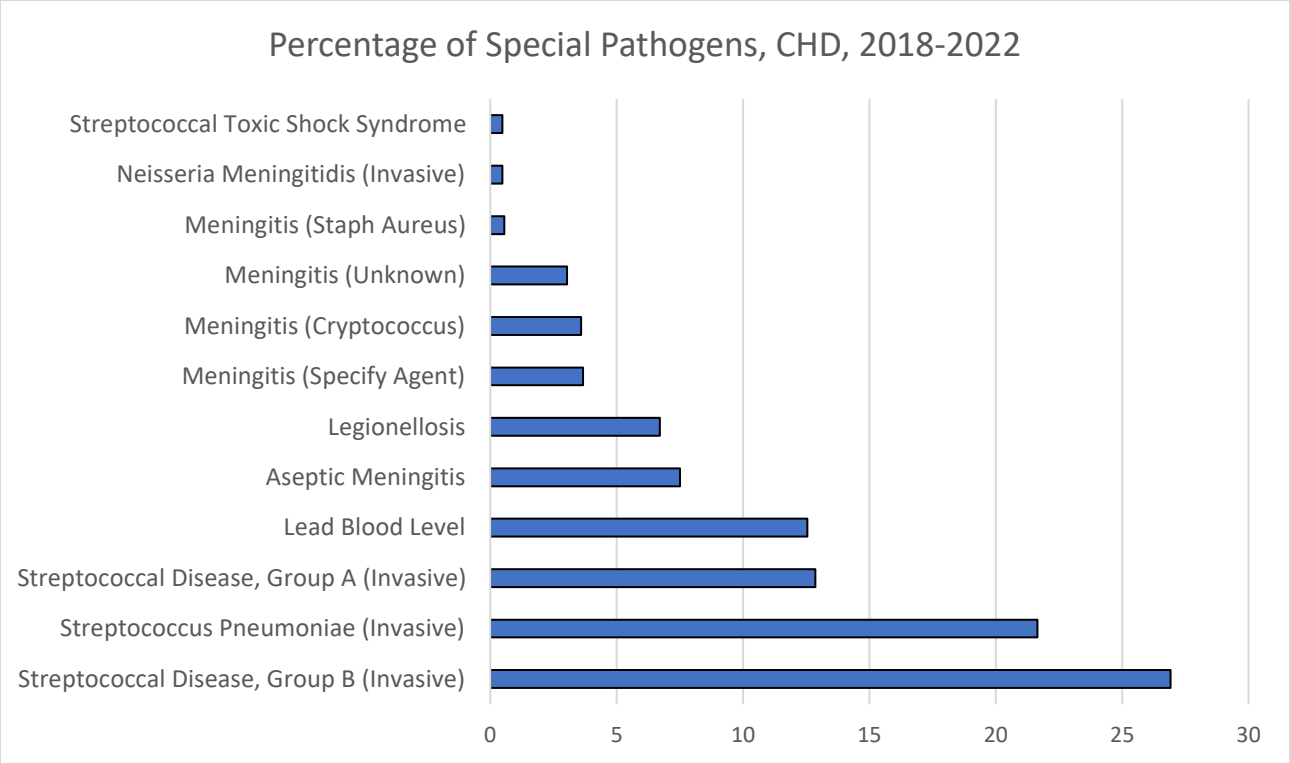
Source: OASIS

Infectious Diseases

Under Georgia law, certain diseases and conditions are designated as notifiable. It means that when a physician or health care provider has a patient who tests positive for one of the many notifiable diseases, they are required by Georgia law to notify the Department of Public Health. The purpose of notifiable disease surveillance is to identify diseases or conditions promptly manner that may require immediate public health intervention and follow-up; detect changing trends or patterns in disease occurrence; identify areas or communities that require additional public health resources because of changes in disease patterns; and assess and evaluate prevention strategies.

The following figures detail the percentage of confirmed cases of each disease or condition reported from 2018-2022. It should be noted that disease reporting is based on residence and does not necessarily reflect the location where the disease or condition was acquired.

Figure 108: Percentage of Special Pathogens, CHD, 2018-2022

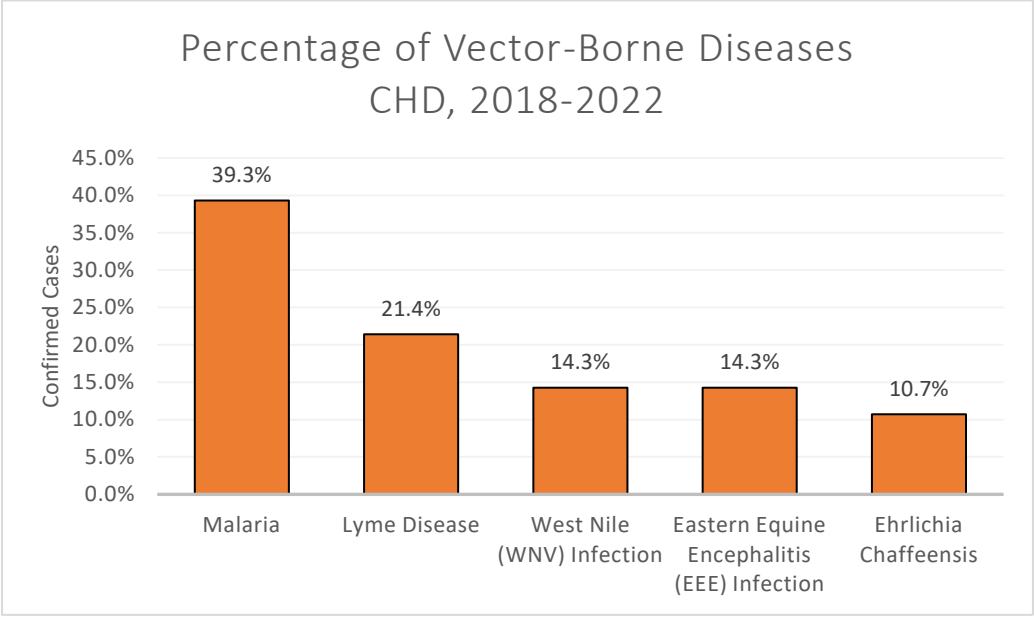


Source: SendSS

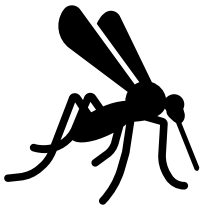
Vector-Borne Diseases

Vector-borne diseases are illnesses transmitted to humans through the bite of infected vectors, such as mosquitoes, ticks, or fleas. These tiny organisms serve as carriers of pathogens, such as viruses or parasites, facilitating the transfer of disease from one host to another. The intricate interplay between vectors, pathogens, and human hosts underscores the dynamic challenges of managing and preventing these diseases, requiring comprehensive strategies to mitigate their impact on global public health. The figure below displays the percentage of vector-borne diseases in the Coastal Health District between 2018 and 2022. It's important to note that the cases of malaria were all travel-associated.

Figure 109: Percentage of Vector-Borne Diseases, CHD, 2018-2022



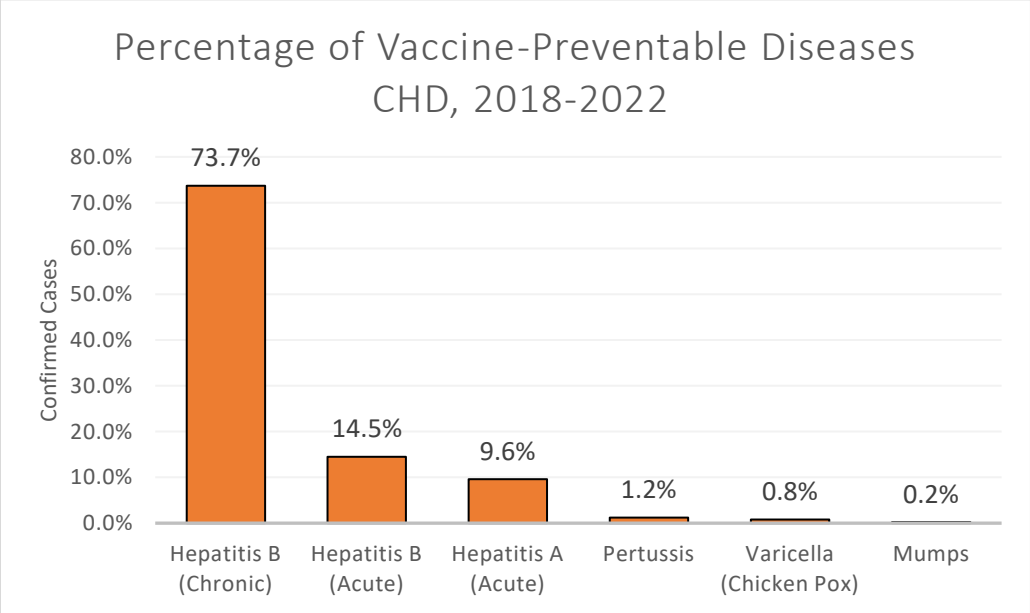
Source: SendSS



Vaccine-Preventable Diseases

Vaccine-preventable diseases represent a category of illnesses that are controlled through vaccination. Public health plays a vital role in orchestrating widespread immunization programs, ensuring that communities are shielded from preventable infections. By promoting vaccine awareness, accessibility, and education, public health endeavors to create robust immunization coverage, establishing a collective defense against diseases like measles, polio, and influenza. Through proactive vaccination efforts, public health safeguards individual health but also fosters community resilience, contributing to the broader goal of global disease prevention and control. The figure below displays the percentage of vaccine-preventable diseases in the Coastal Health District between 2018 and 2022. Hepatitis will be discussed further in its own section.

Figure 110: Percentage of Vaccine-Preventable Diseases, CHD, 2018-2022



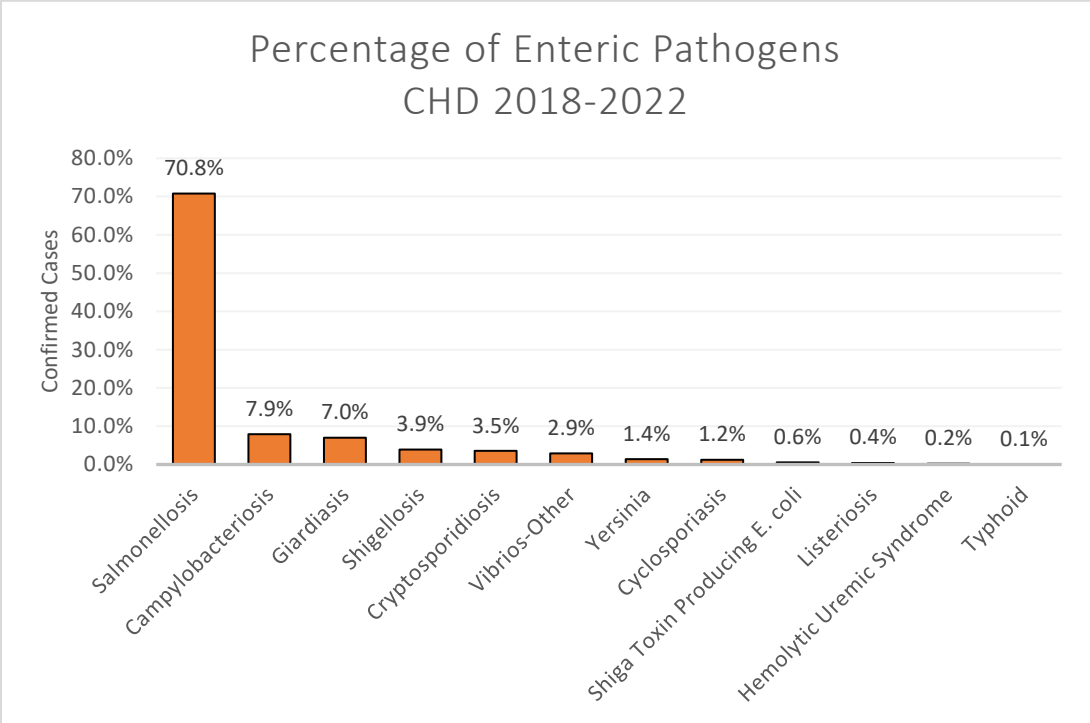
Source: SendSS

Enteric Diseases

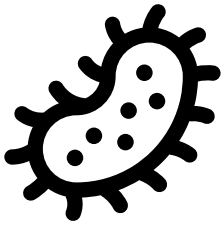
Enteric bacteria, such as *salmonellosis* and *campylobacteriosis*, are typically acquired through contaminated food and water, by contact with animals or their environment, or by contact with the feces of an infected person. Some common symptoms of enteric diseases include diarrhea, nausea, fever, vomiting, or abdominal pain; however, some enteric diseases cause different symptoms. For example, Shiga toxin-producing *E. coli* symptoms can include severe stomach cramps or bloody diarrhea, while invasive Listeria can have flu-like symptoms. Most cases of enteric diseases are mild and go unreported, while others can cause significant health problems, severe illness, or death.

The Coastal Health District conducts enteric disease surveillance and assists state and national partners in decreasing the burden of illness and preventing the spread of disease. *Salmonellosis* made up 70.80% of all enteric disease cases in the CHD between 2018 and 2022, followed by *campylobacteriosis*, 7.9%, and *giardiasis*, 7.0%.

Figure 111: Percentage of Enteric Pathogens, CHD, 2018-2022



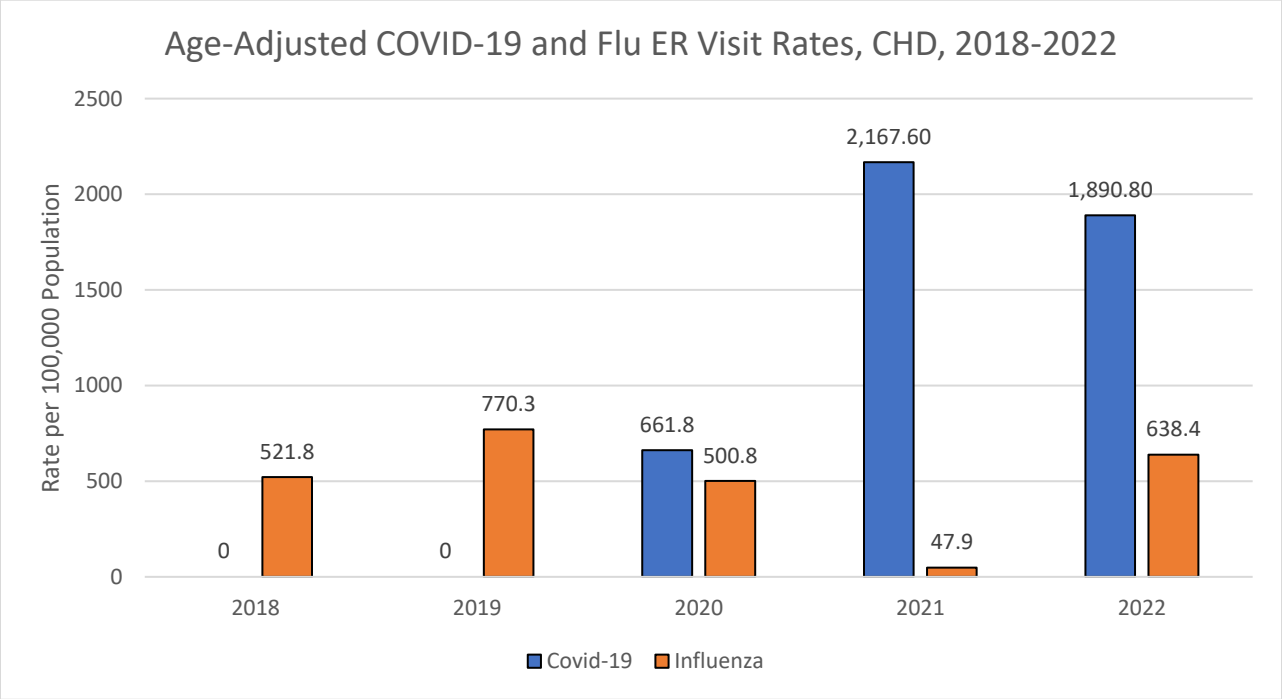
Source: SendSS



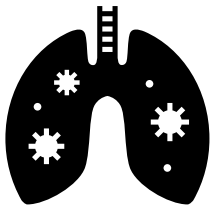
Respiratory Diseases

Respiratory diseases are a constant concern for community health, particularly due to their ability to spread rapidly. Influenza, respiratory syncytial virus (RSV), and more recently, the COVID-19 virus, highlight the significant impact such infections can have on individuals and communities. These viruses often target the respiratory system, causing symptoms ranging from mild to severe, and they can disproportionately affect vulnerable populations. Effective community health measures, vaccination campaigns, public health education, and hygiene practices, play a crucial role in mitigating the spread of respiratory diseases. Strengthening community resilience through proactive healthcare strategies is essential to minimize the impact of these viruses on public health and maintain overall well-being. The age-adjusted ER visit rate for COVID-19 has always been significantly higher than the flu among Coastal Health District residents.

Figure 112: Age-Adjusted COVID-19 and Flu ER Visit Rates, CHD, 2018-2022



Source: OASIS

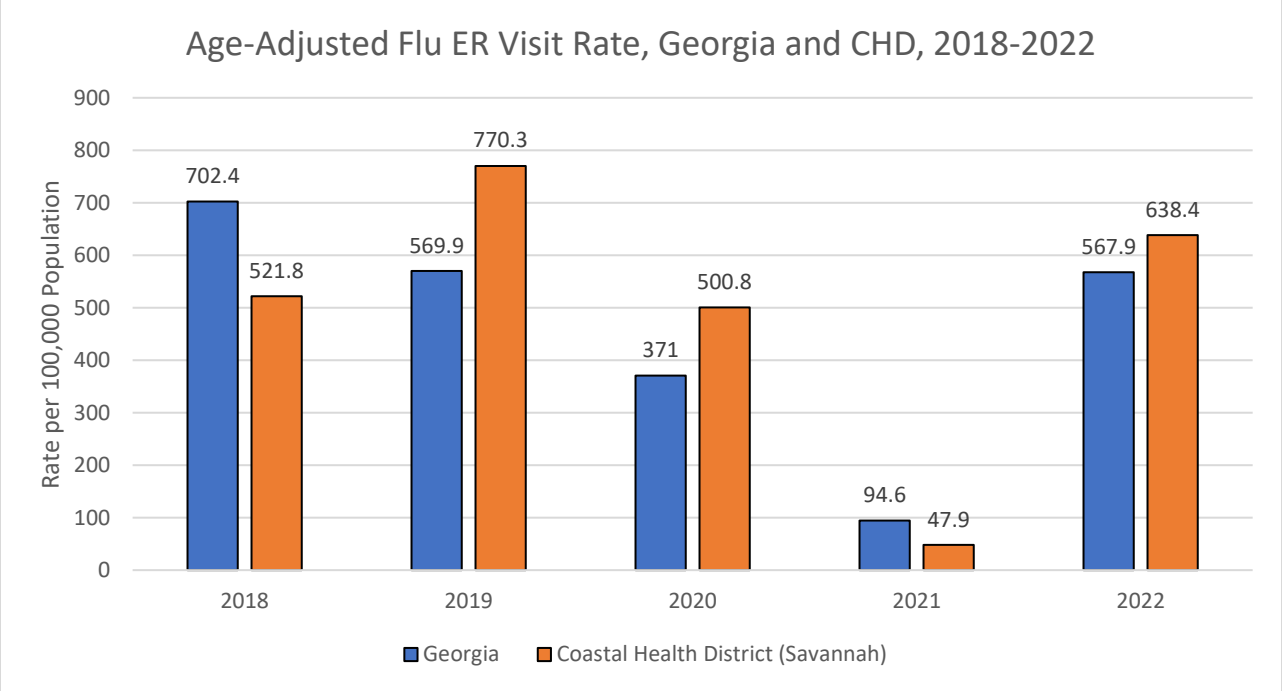


Influenza

Influenza, or the flu, remains a persistent public health concern due to its contagious nature and potential for widespread outbreaks. Symptoms can be mild or severe and sometimes result in death. Each year, influenza viruses evolve, necessitating vigilant monitoring and vaccination efforts to protect communities. Public health initiatives, such as flu vaccination campaigns, are essential in reducing the impact of the flu on populations.

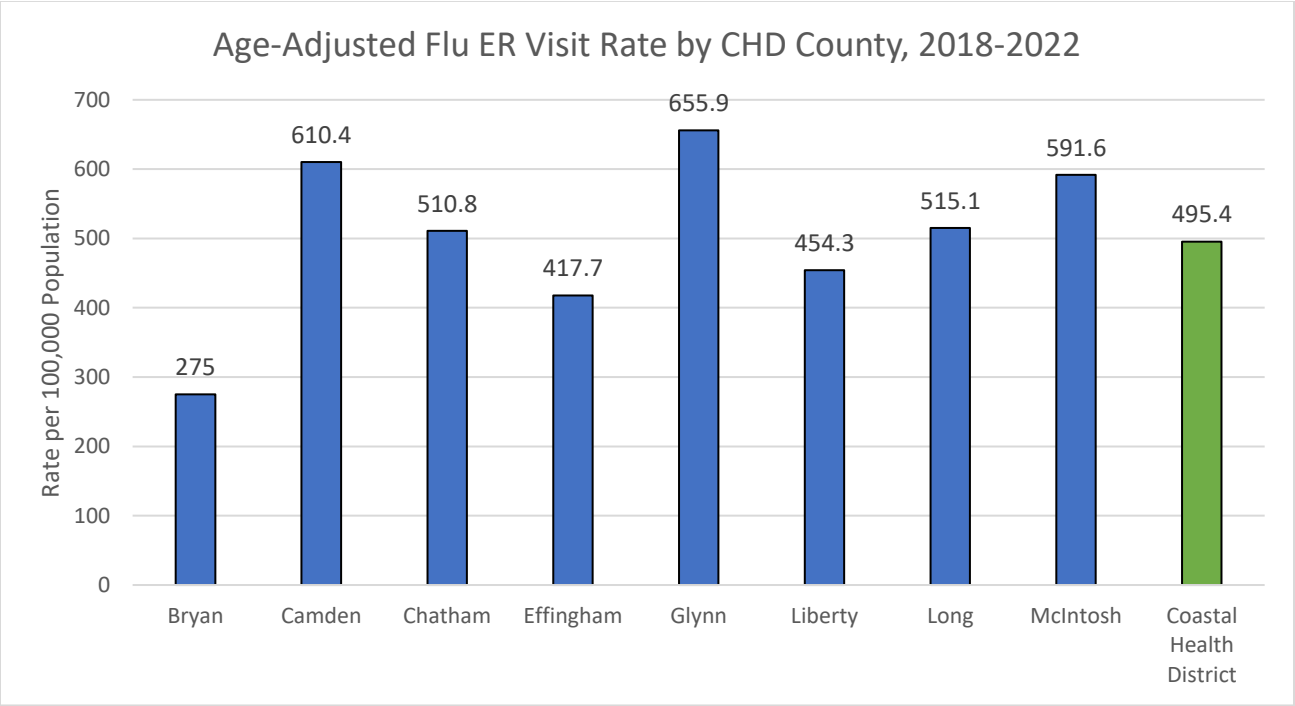
In 2018 and 2021, the Coastal Health District had lower age-adjusted ER visit rates for the flu compared to Georgia. Glynn County had the highest age-adjusted ER visit rates for the flu and Bryan County had the lowest. There was a significant decrease in age-adjusted ER visit rates for the flu in 2021, during the COVID-19 pandemic, believed to be caused by mask-wearing and social distancing [45]. The age group with the highest ER visit rate for the flu between 2018 and 2022 in the Coastal Health District is among those between 0 and 4. Age-adjusted ER visit rates for the flu are higher among Black or African-Americans and Multiracial and lower for Hispanics or Latinos. In the CHD between 2018 and 2022, the age-adjusted ER visit rate for the flu was higher for women than men.

Figure 113: Age-Adjusted Flu ER Visit Rate, Georgia and CHD, 2018-2022



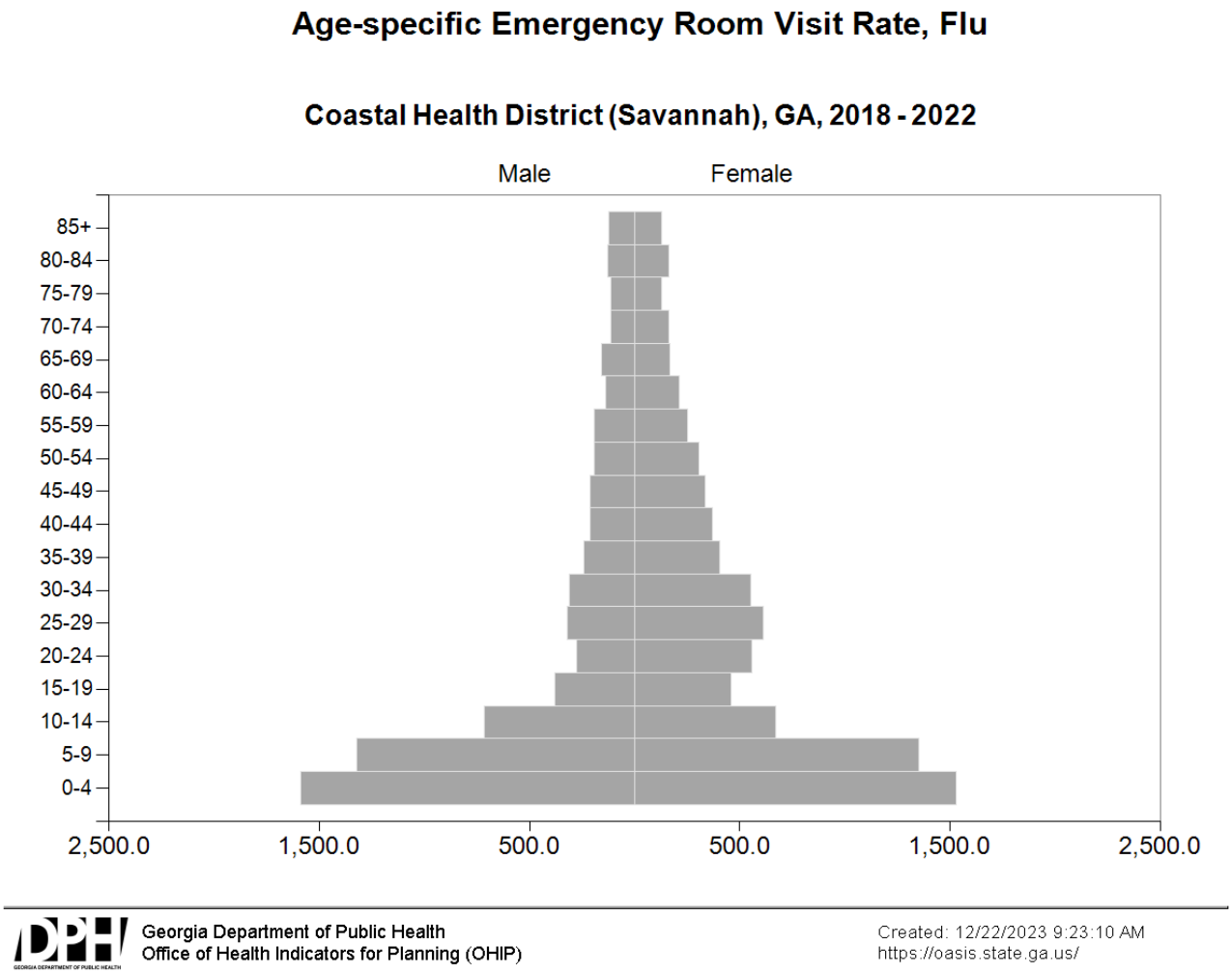
Source: OASIS

Figure 114: Age-Adjusted Flu ER Visit Rate by CHD County, 2018-2022



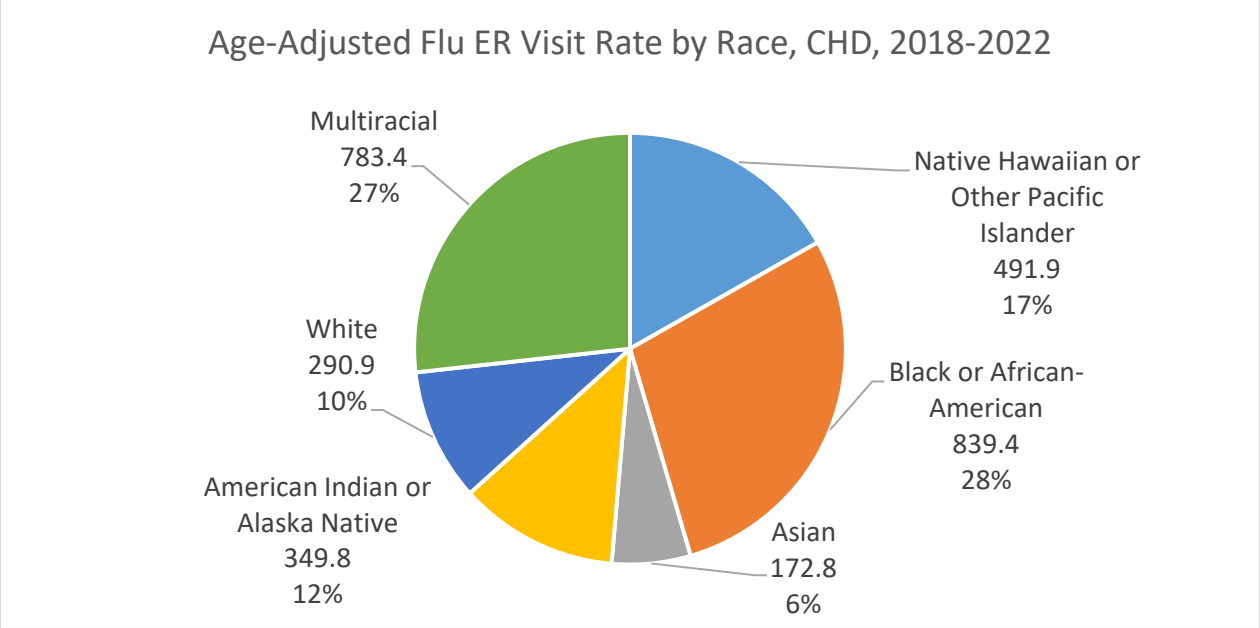
Source: OASIS

Figure 115: Age-Specific Flu ER Visit Rate, CHD, 2018-2022



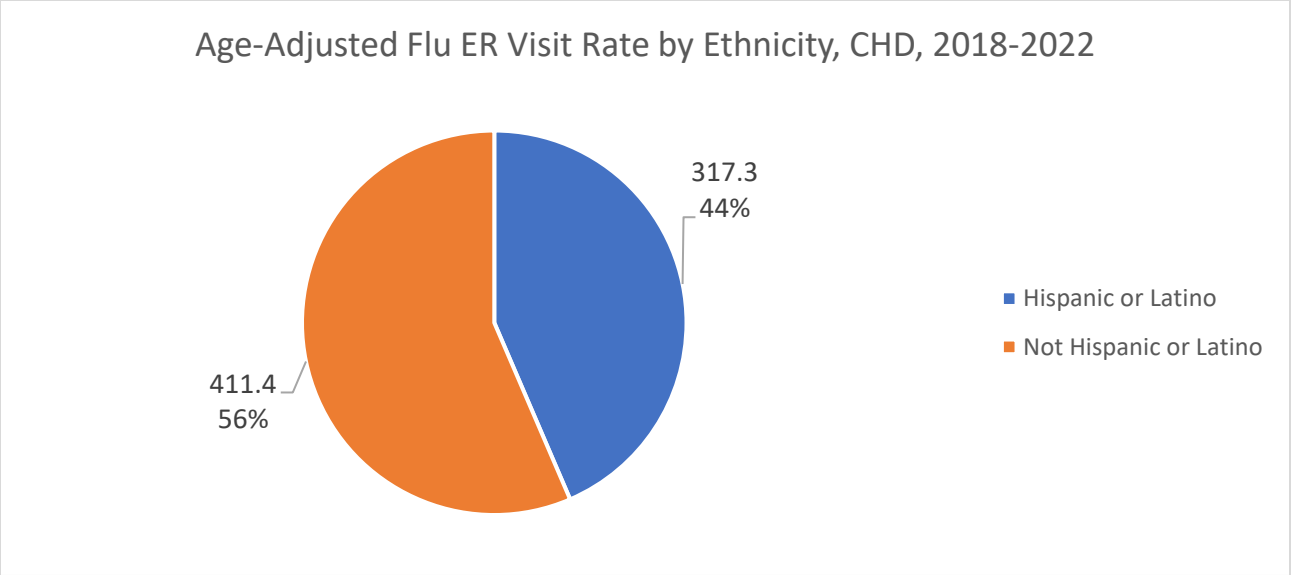
Source: OASIS

Figure 116: Age-Adjusted Flu ER Visit Rate by Race, CHD, 2018-2022



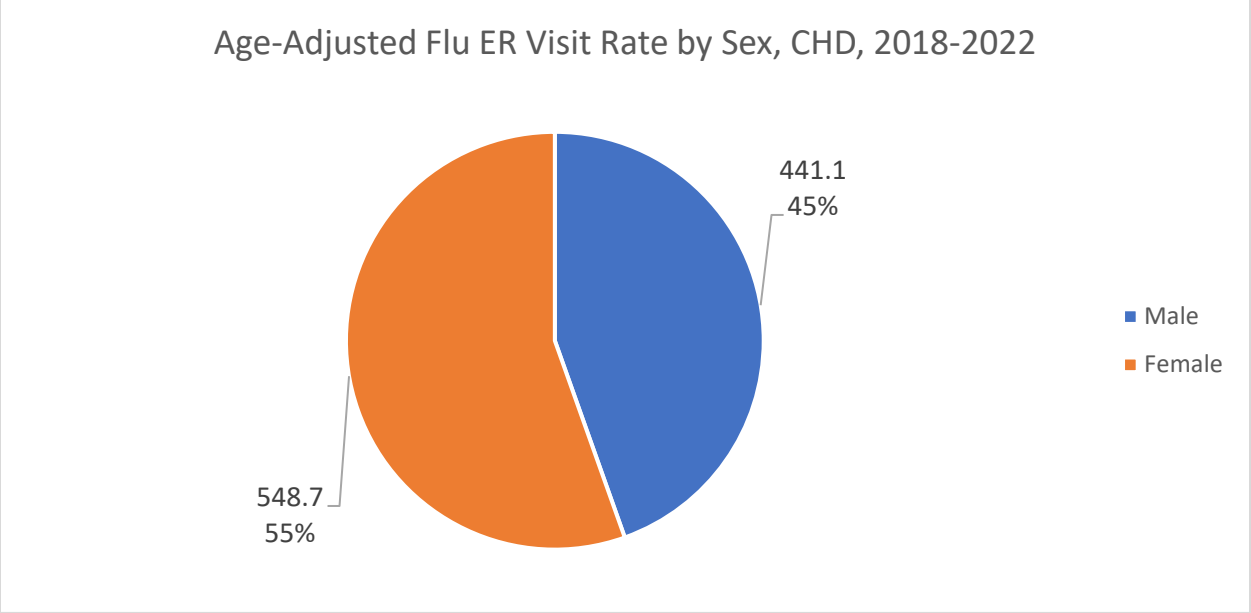
Source: OASIS

Figure 117: Age-Adjusted Flu ER Visit Rate by Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 118: Age-Adjusted Flu ER Visit Rate by Sex, CHD, 2018-2022



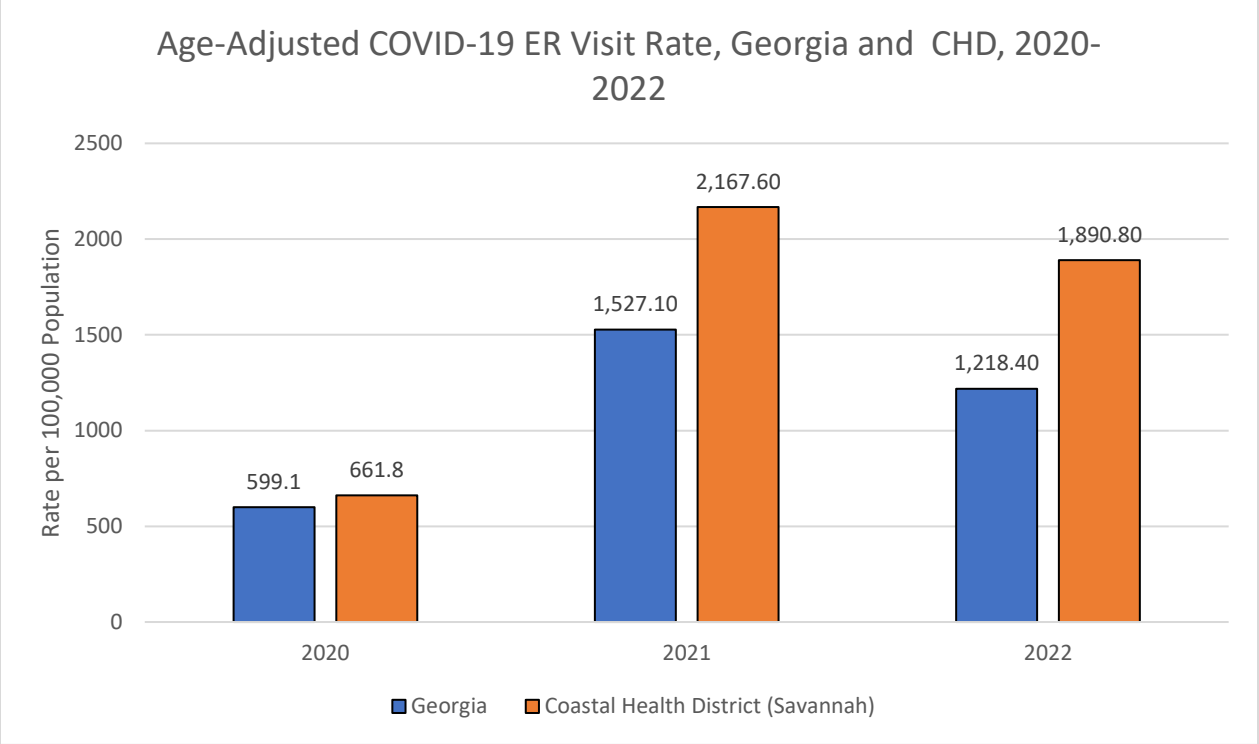
Source: OASIS

COVID-19

COVID-19 has profoundly impacted public health globally. The pandemic underscored the critical role of public health measures in controlling the spread of infectious diseases. Efforts such as widespread testing, vaccination campaigns, and social distancing became paramount to managing and mitigating the impact of the virus. The pandemic emphasized the need for flexible and adaptive public health threats swiftly. As communities continue to navigate the challenges posed by COVID-19, collaborative and science-driven public health interventions remain essential for protecting populations and fostering resilience against future health crises.

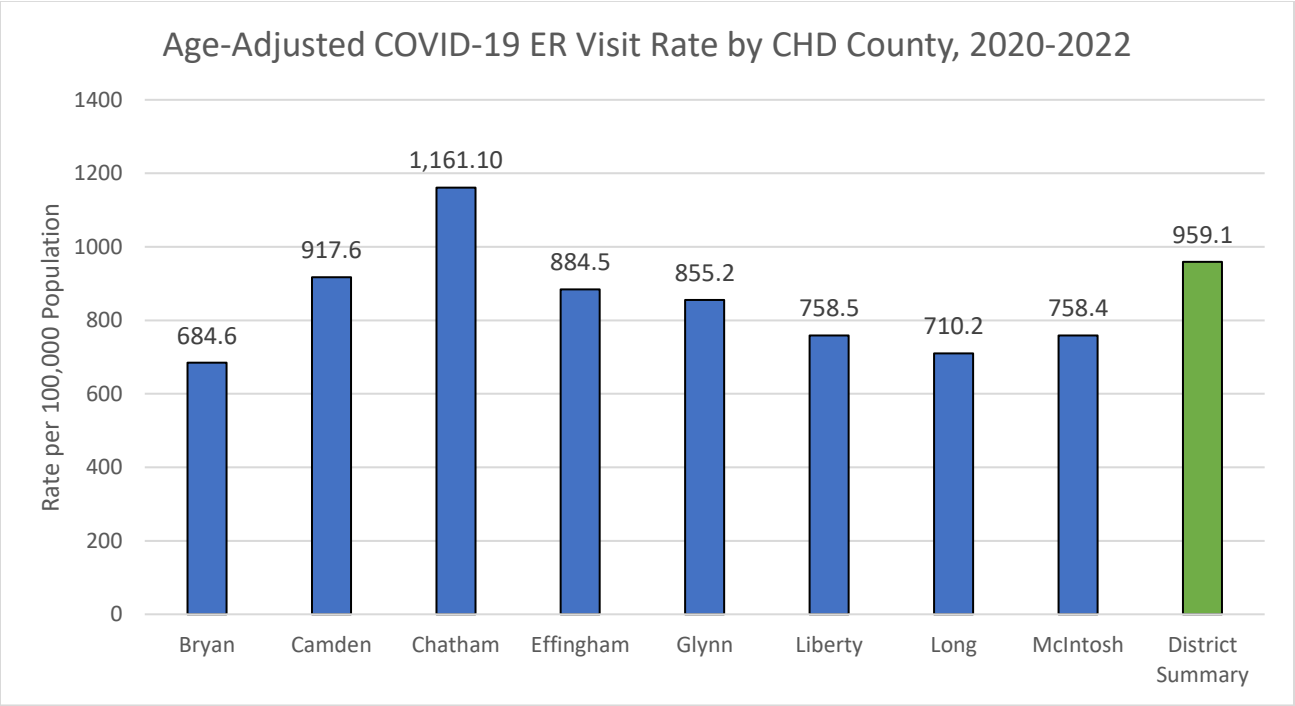
The figure below shows the age-adjusted ER visit rates for COVID-19 in the Coastal Health District and Georgia between 2020 and 2022. COVID-19 ER visit rates were higher in the Coastal Health District than in Georgia. Chatham County had the highest COVID-19 ER visit rates while Bryan County had the lowest. Similar to the flu, the age group with the highest ER visit rate for COVID-19 between 2020 and 2022 in the Coastal Health District is among those between 0 and 4. Age-adjusted ER visit rates for COVID-19 are highest among Multiracial people and lower for Hispanic or Latino. In the CHD between 2020 and 2022, the age-adjusted ER visit rate for COVID-19 was higher for women than men.

Figure 119: Age-Adjusted COVID-19 ER Visit Rate, Georgia and CHD, 2020-2022



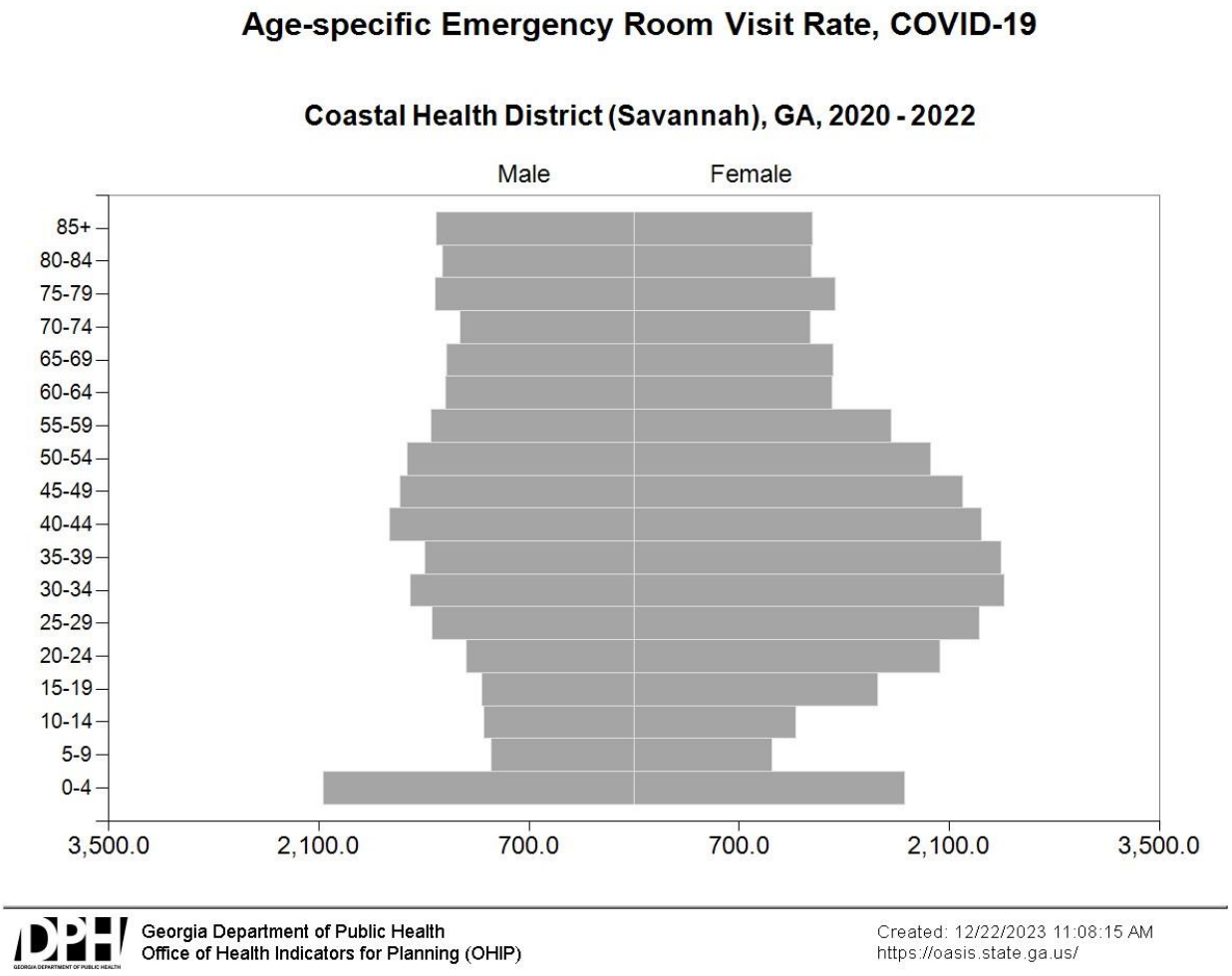
Source: OASIS

Figure 120: Age-Adjusted COVID-19 ER Visit Rate by CHD County, 2020-2022



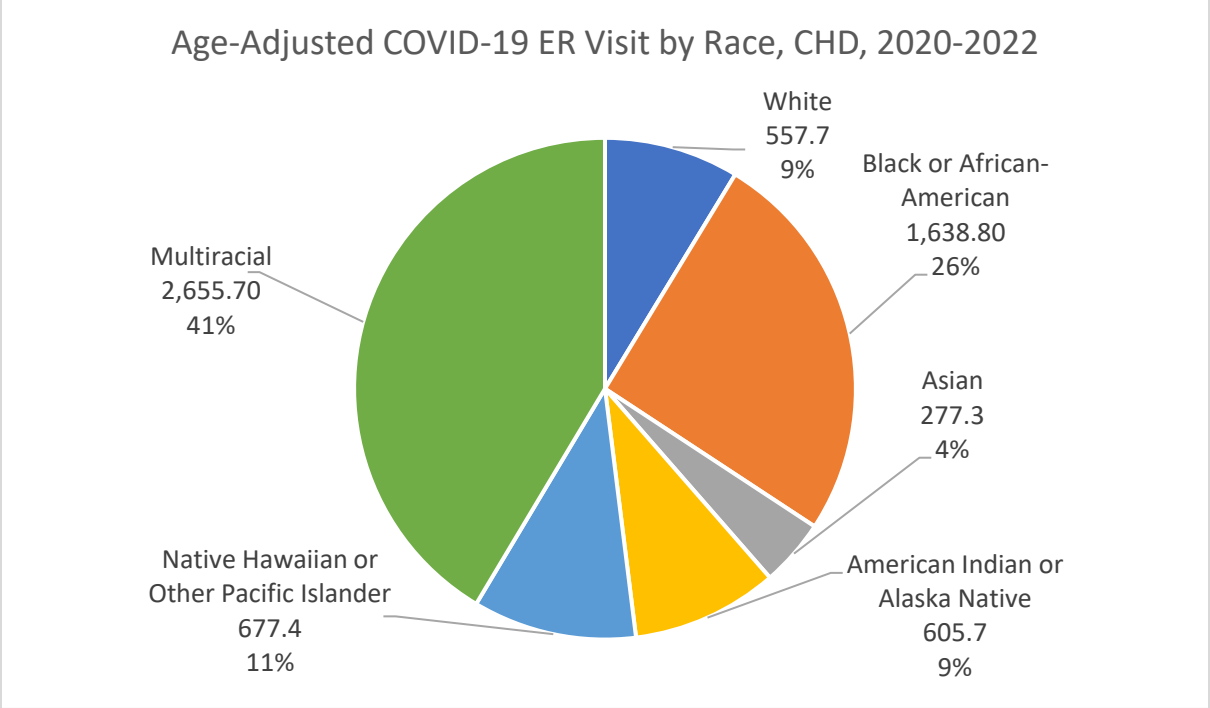
Source: OASIS

Figure 121: Age-Specific COVID-19 ER Visit Rate, CHD, 2020-2022



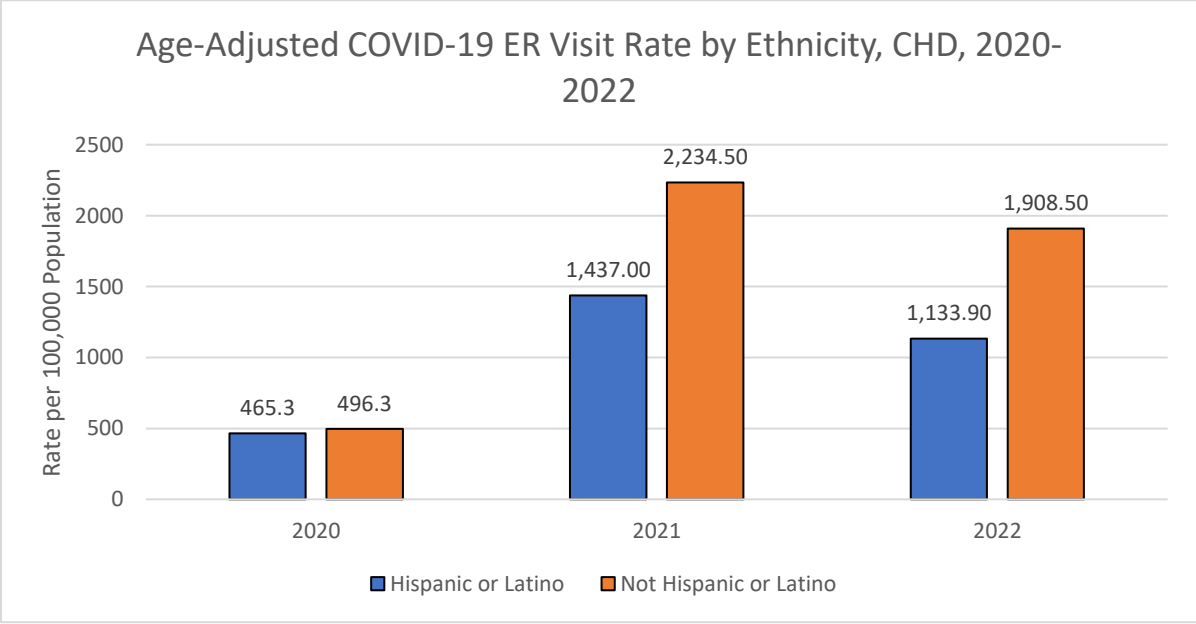
Source: OASIS

Figure 122: Age-Adjusted COVID-19 ER Visit Rate by Race, CHD, 2020-2022



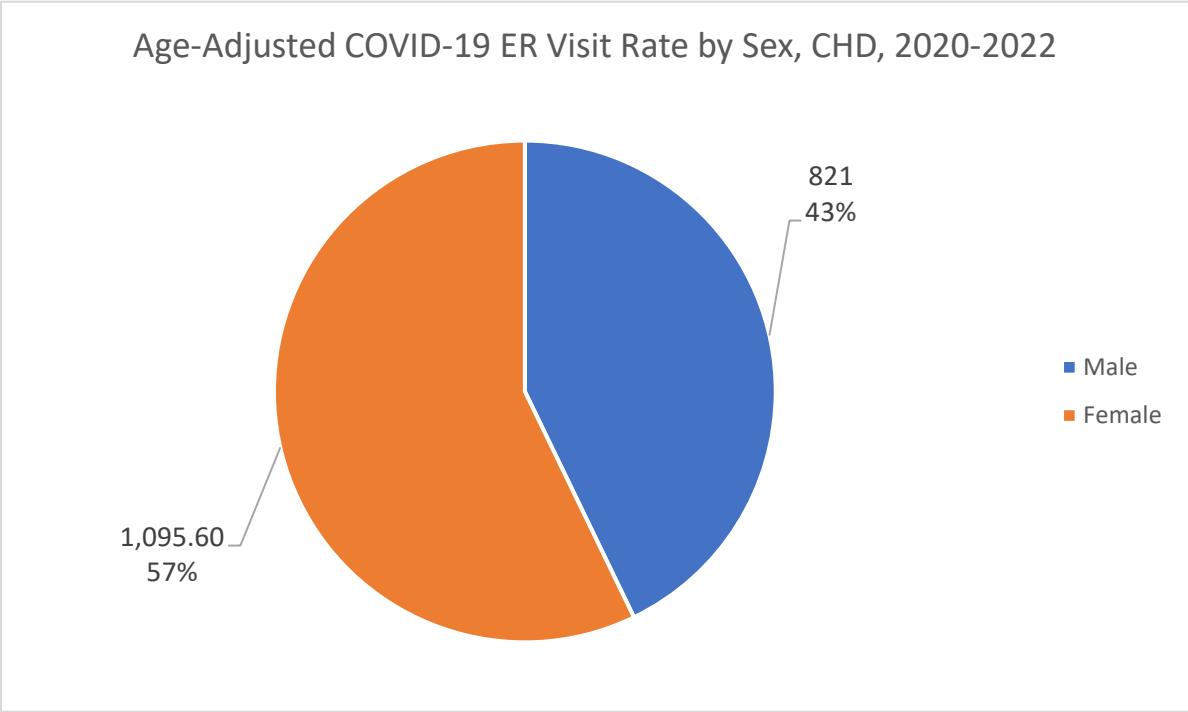
Source: OASIS

Figure 123: Age-Adjusted COVID-19 ER Visit Rate by Ethnicity, CHD, 2020-2022



Source: OASIS

Figure 124: Age-Adjusted COVID-19 ER Visit Rate by Sex, CHD, 2020-2022



Source: OASIS

Hepatitis

Hepatitis means inflammation of the liver. It is caused by alcohol, drugs or medications, toxins or chemicals, autoimmune diseases, bacteria, or viral infections [46]. There are five types of viral hepatitis, A, B, C, D, and E. Hepatitis B and C are especially concerning as they lead to liver cirrhosis and cancer in hundreds of millions of people around the world. The disease can be self-limiting or can progress to fibrosis (scarring), cirrhosis, or liver cancer.

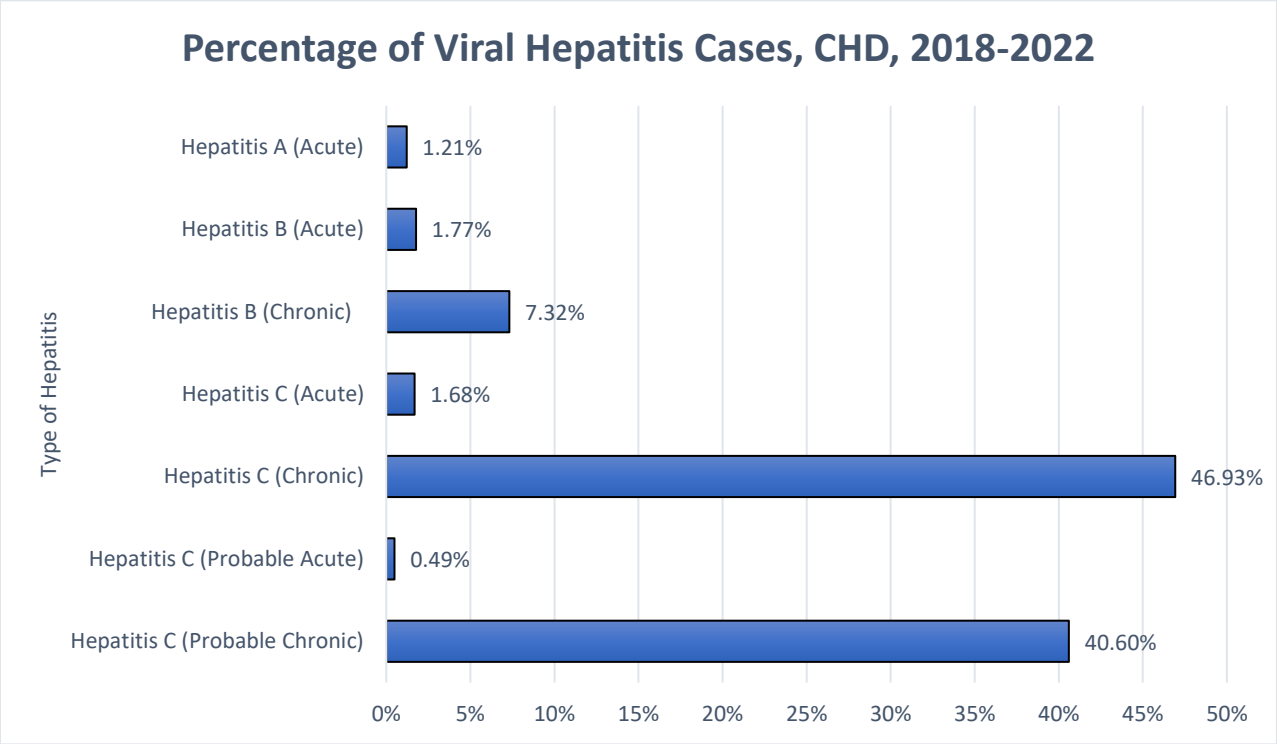
Viral hepatitis shares similar symptoms such as fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, light-colored stool, joint pain, and jaundice. They are different in the way they transmit the virus. Hepatitis A is usually spread through the fecal-oral route. Hepatitis B is usually spread through contact with blood or body fluids from an infected person. Hepatitis C is spread through contact with blood from an infected person or a contaminated object.

Effective vaccinations are available for hepatitis A and B, but currently there is no vaccination to prevent developing hepatitis C. The hepatitis B vaccine is recommended for infants at birth and those in high-risk groups, including healthcare and public safety workers exposed to blood on the job, persons with chronic liver disease, HIV infection, injection drug users, travelers to regions with intermediate or high rates of hepatitis B, and anyone else seeking long-term protection from the virus.

Supportive care is recommended for all cases of acute viral hepatitis. Treatment options are available for chronic hepatitis B cases; however, it is important to be regularly seen by a health care provider. Additionally, chronic hepatitis C has treatment options and is curable in more than 95% of cases [47].

Within the state of Georgia, hepatitis infections are categorized through case definition as acute, chronic, probable acute, or probable chronic. The probable categories represent known infections that do not have enough data to determine whether they are acute or chronic. The figure below shows the percentage of hepatitis A, B, and C cases in the Coastal Health District between 2018 and 2022. Hepatitis B and C were more frequently reported in the Coastal Health District than Hepatitis A. The percents are broken down further by acute or chronic disease apart from hepatitis A, which is always considered acute. Perinatal cases are not included in this section due to privacy and confidentiality.

Figure 125: Percentage of Viral Hepatitis Cases, CHD, 2018-2022

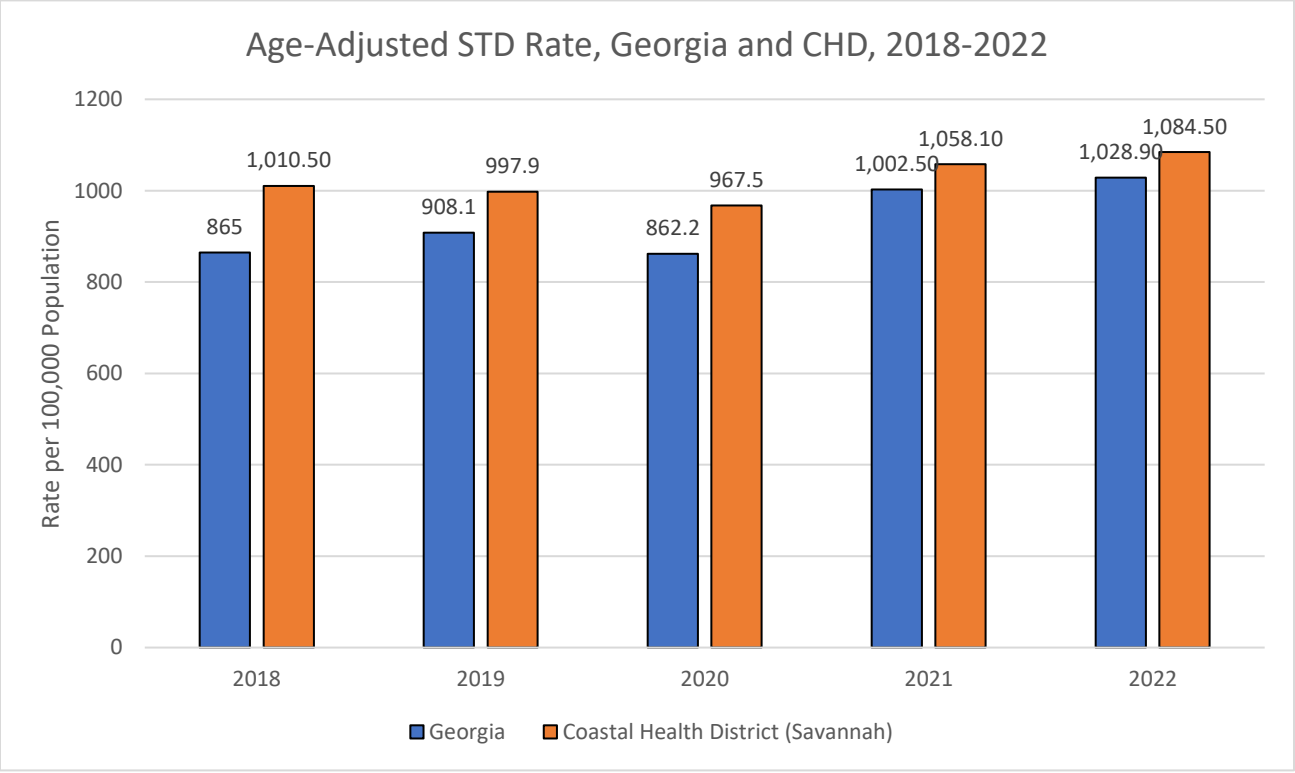


Source: SendSS

Sexually Transmitted Diseases

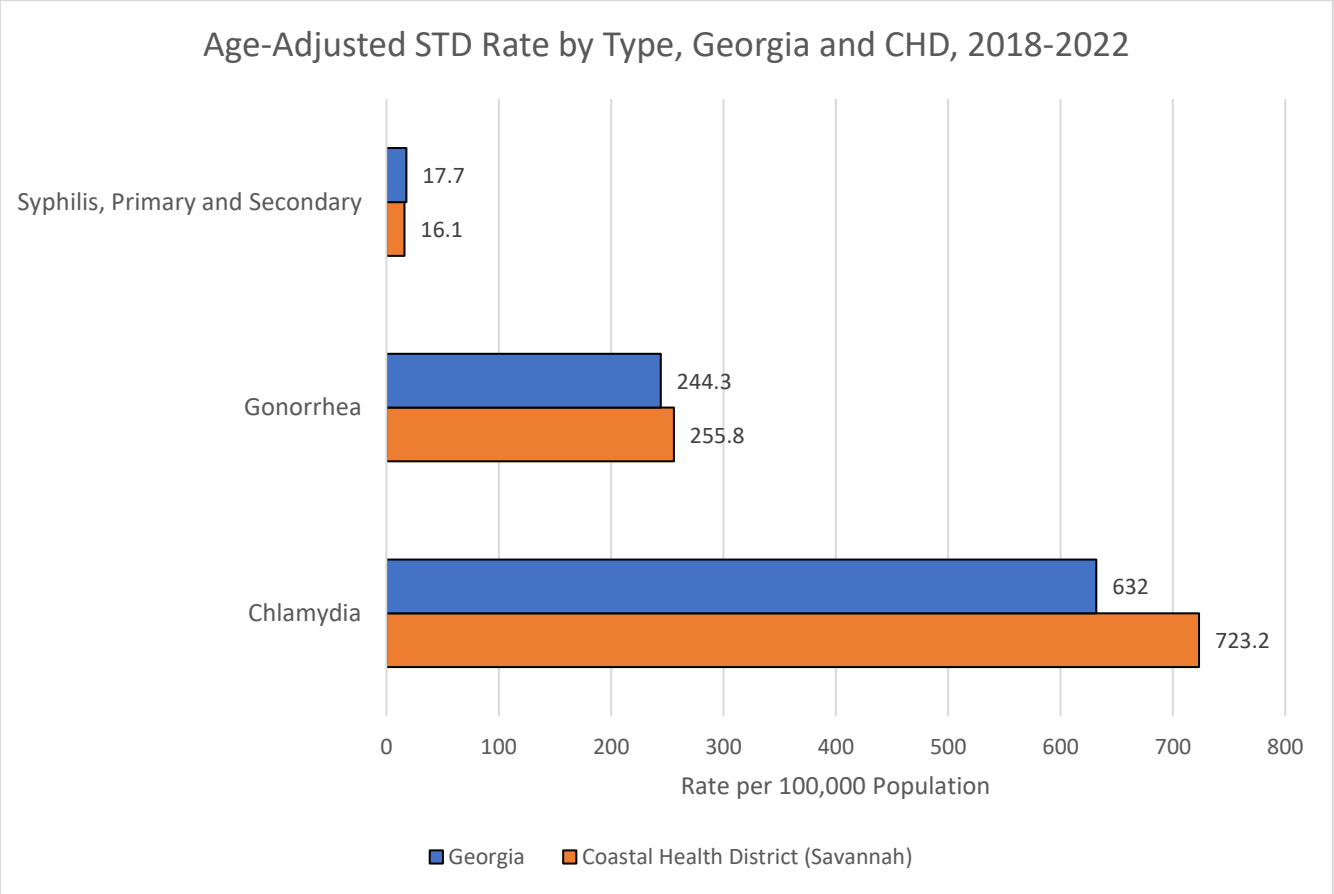
The occurrence of sexually transmitted diseases (STDs) such as chlamydia, gonorrhea, and syphilis is an indicator of unprotected sexual contact, a primary risk factor for HIV infection. STDs can cause infertility, negative pregnancy outcomes, pelvic inflammatory disease, and various types of cancer. Unfortunately, many cases of notifiable STDs are undiagnosed [48]. Any sexually active individual can become infected with gonorrhea, chlamydia, or syphilis. These diseases can be spread through vaginal, anal, or oral sex. Some STDs can be passed from mother to child during pregnancy or birth. From 2018 to 2022, the age-adjusted rate for all sexually transmitted diseases except congenital syphilis was consistently higher in the Coastal Health District compared to Georgia. However, Georgia's 2018-2022 primary and secondary syphilis rate was higher than the Coastal Health District's rate, 17.7 and 16.1, respectively. Additionally, the CHD had higher rates of gonorrhea and chlamydia than Georgia. Chatham County had the highest age-adjusted STD rate and Camden County had the lowest age-adjusted STD rate.

Figure 126: Age-Adjusted STD Rate, Georgia and CHD, 2018-2022



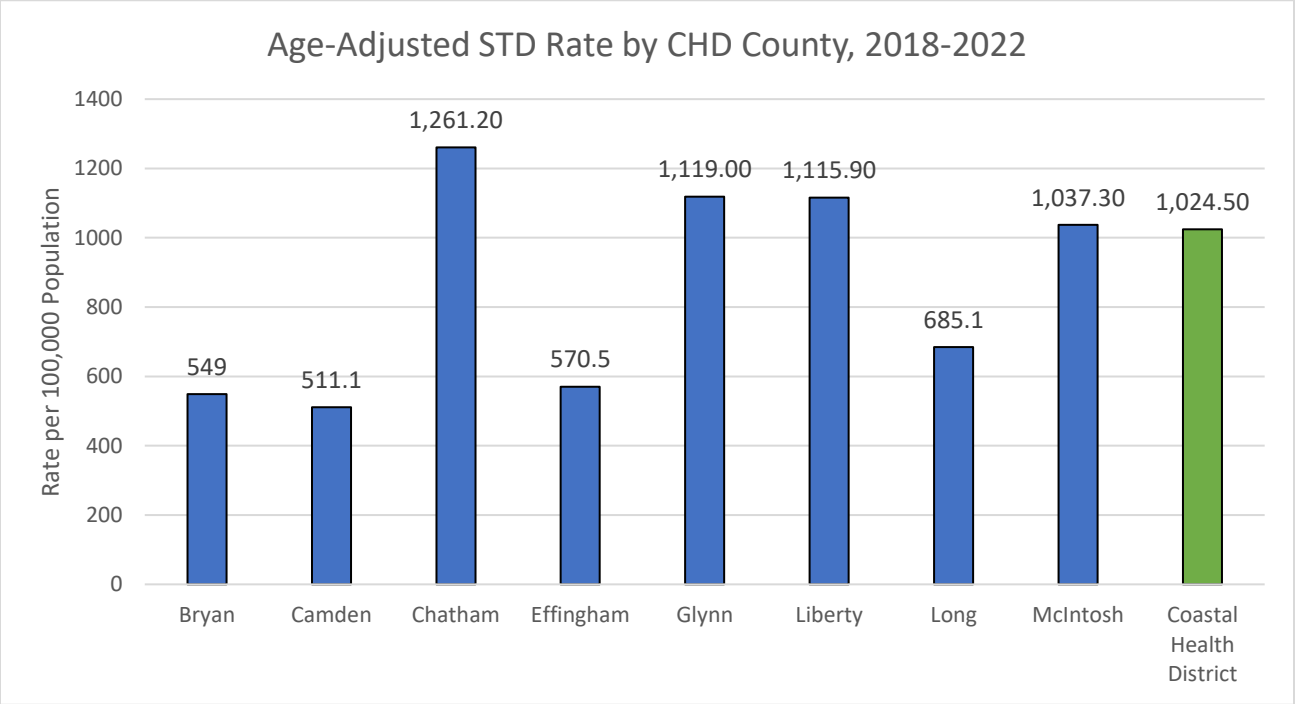
Source: OASIS

Figure 127: Age-Adjusted STD Rate by Type, Georgia and CHD, 2018-2022



Source: OASIS

Figure 128: Age-Adjusted STD Rate by CHD County, 2018-2022



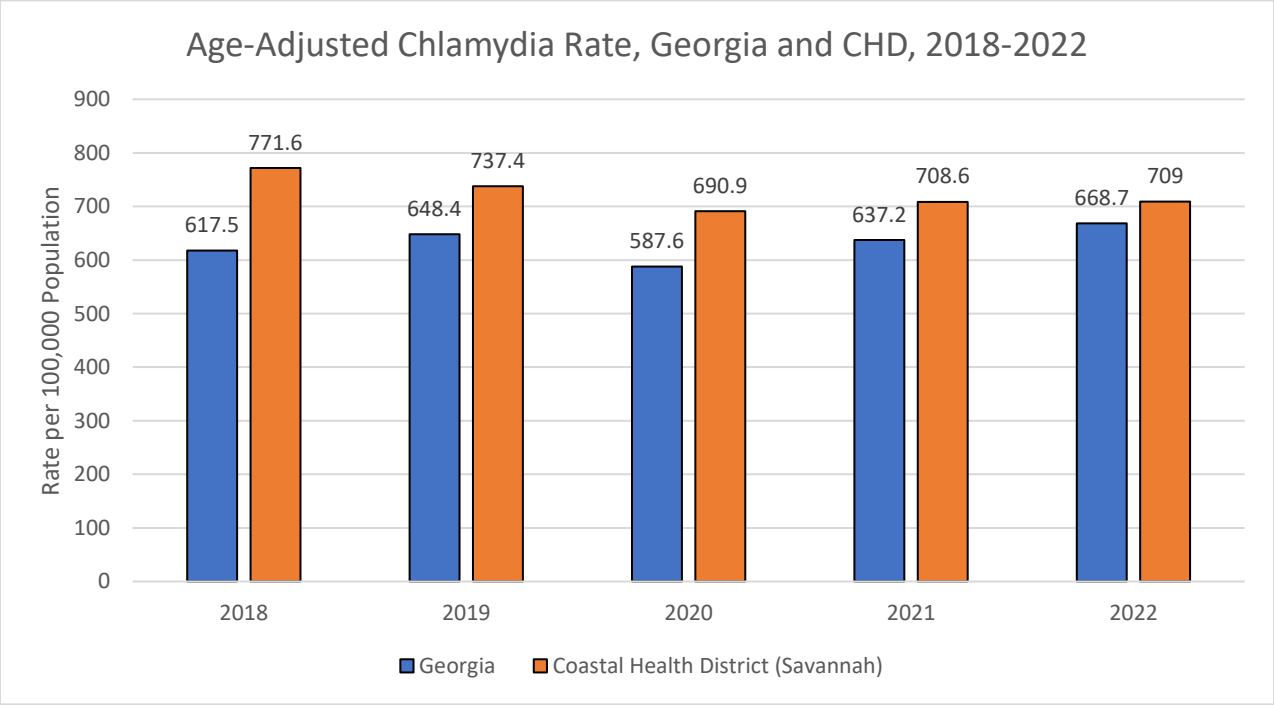
Source: OASIS

Chlamydia

Chlamydia is the most commonly reported sexually transmitted disease in the United States [48]. Chlamydia is a common STD that can infect both men and women and cause serious, permanent damage to a woman's reproductive system. Chlamydia can make it difficult or impossible for a woman to get pregnant and can also cause a potentially fatal ectopic pregnancy (pregnancy that occurs outside the womb). The CDC reported in 2019 that undiagnosed STDs like chlamydia cause infertility in more than 20,000 women each year [48].

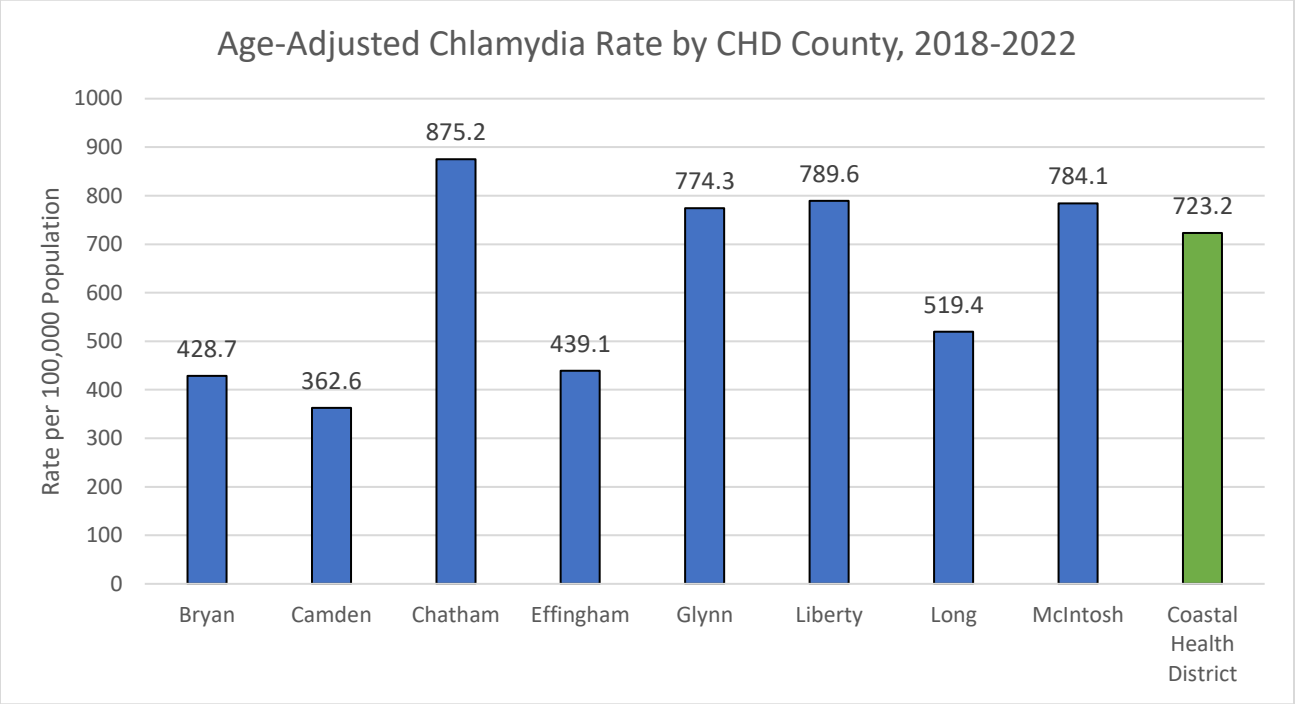
Between 2018 and 2022, the age-adjusted rate of chlamydia was the lowest for Georgia and the CHD in 2020. This dip was likely an acute result of the COVID-19 pandemic. Chatham County had the highest age-adjusted chlamydia rate and Camden County had the lowest age-adjusted chlamydia rate. The highest total reported age-specific rates for 2018-2022 of chlamydia in the Coastal Health District are among those between 15-19 years and 20-24 years. Chlamydia age-adjusted rates for Black or African-Americans are much higher than any other race. Chlamydia age-adjusted rates were lower for Hispanic or Latino than not Hispanic or Latino. Chlamydia is detected more often in women than in men.

Figure 129: Age-Adjusted Chlamydia Rate, Georgia and CHD, 2018-2022



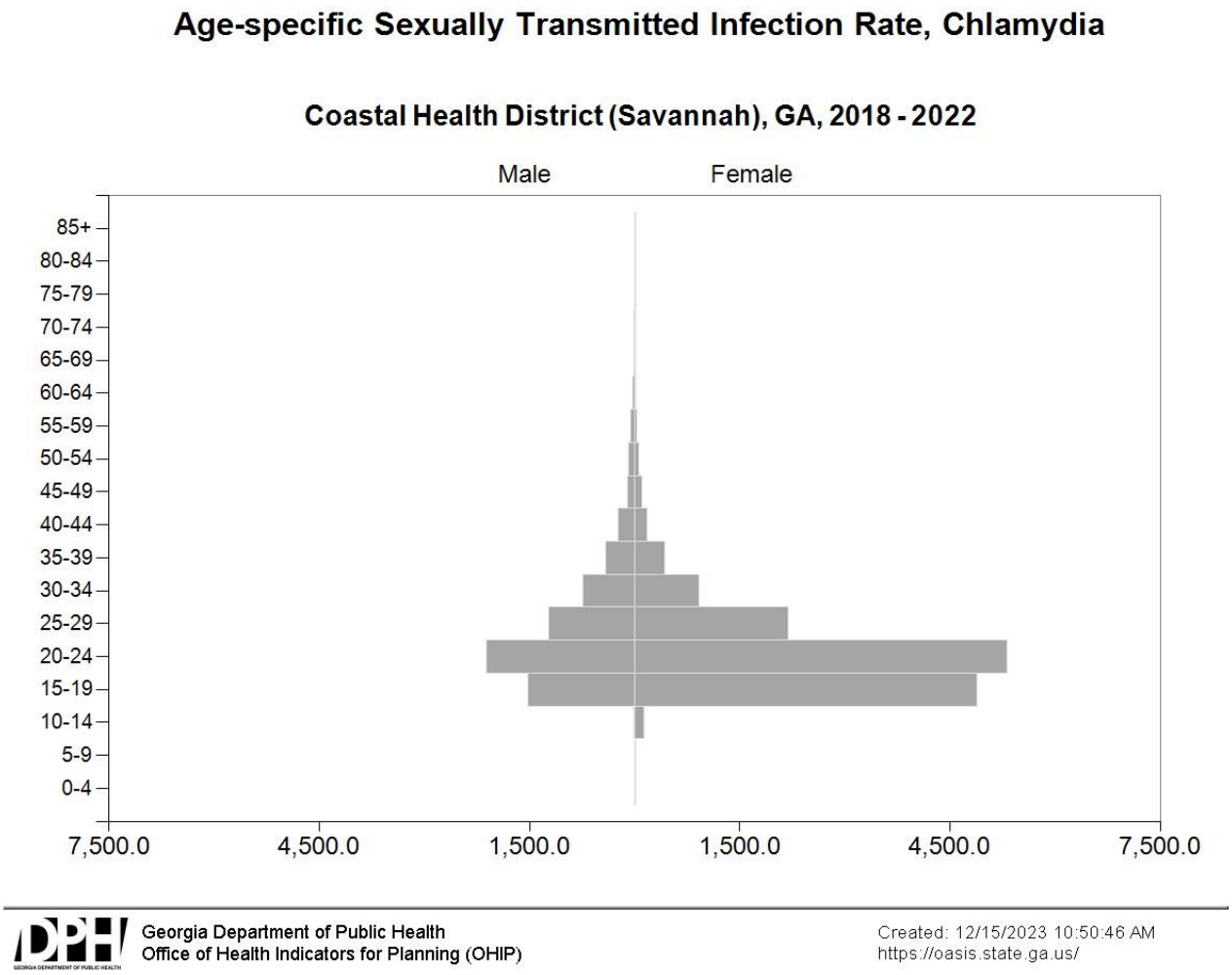
Source: OASIS

Figure 130: Age-Adjusted Chlamydia Rate by CHD County, 2018-2022



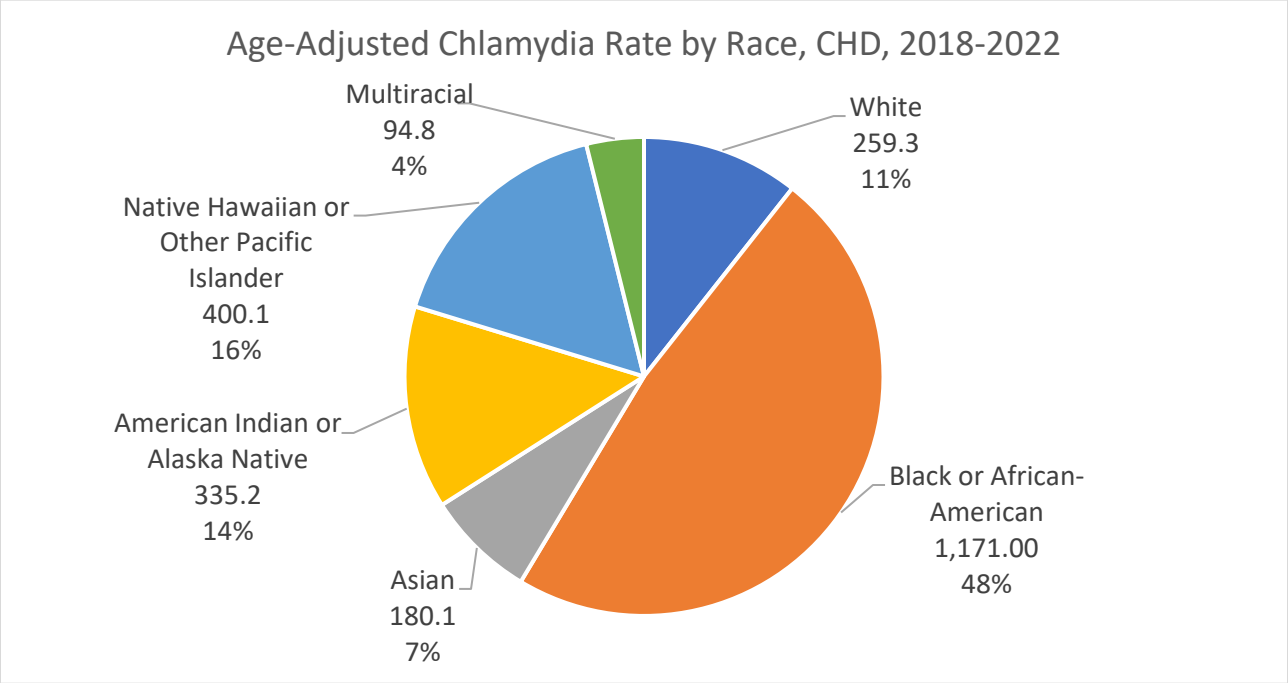
Source: OASIS

Figure 131: Age-Specific Chlamydia Rate (per 100,000 Population), CHD, 2018-2022



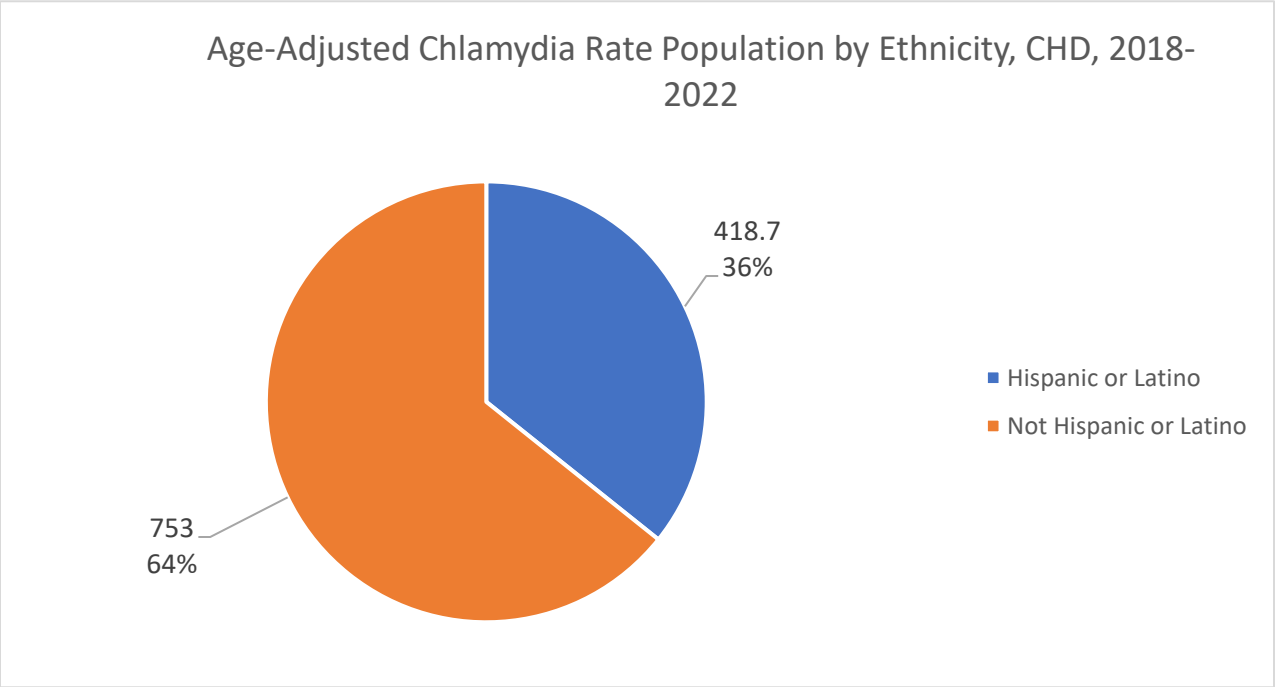
Source: OASIS

Figure 132: Age-Adjusted Chlamydia Rate (per 100,000 Population) by Race, CHD, 2018-2022



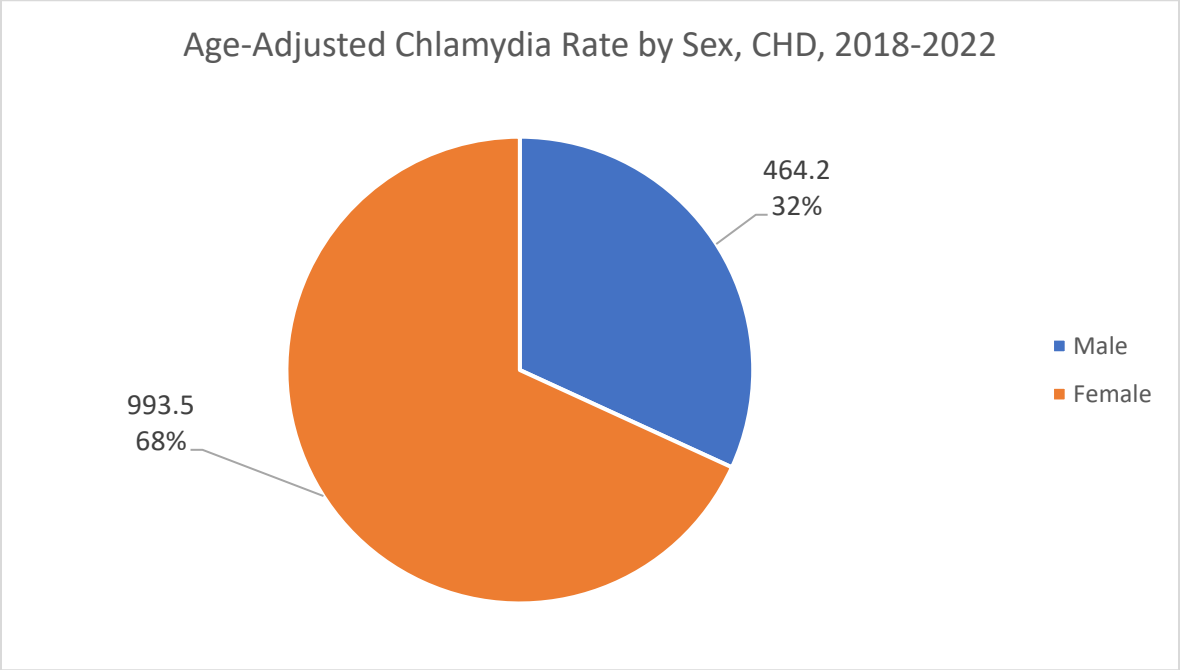
Source: OASIS

Figure 133: Age-Adjusted Chlamydia Rate (per 100,000 Population) by Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 134: Age-Adjusted Chlamydia Rate (per 100,000 Population) by Sex, CHD, 2018-2022



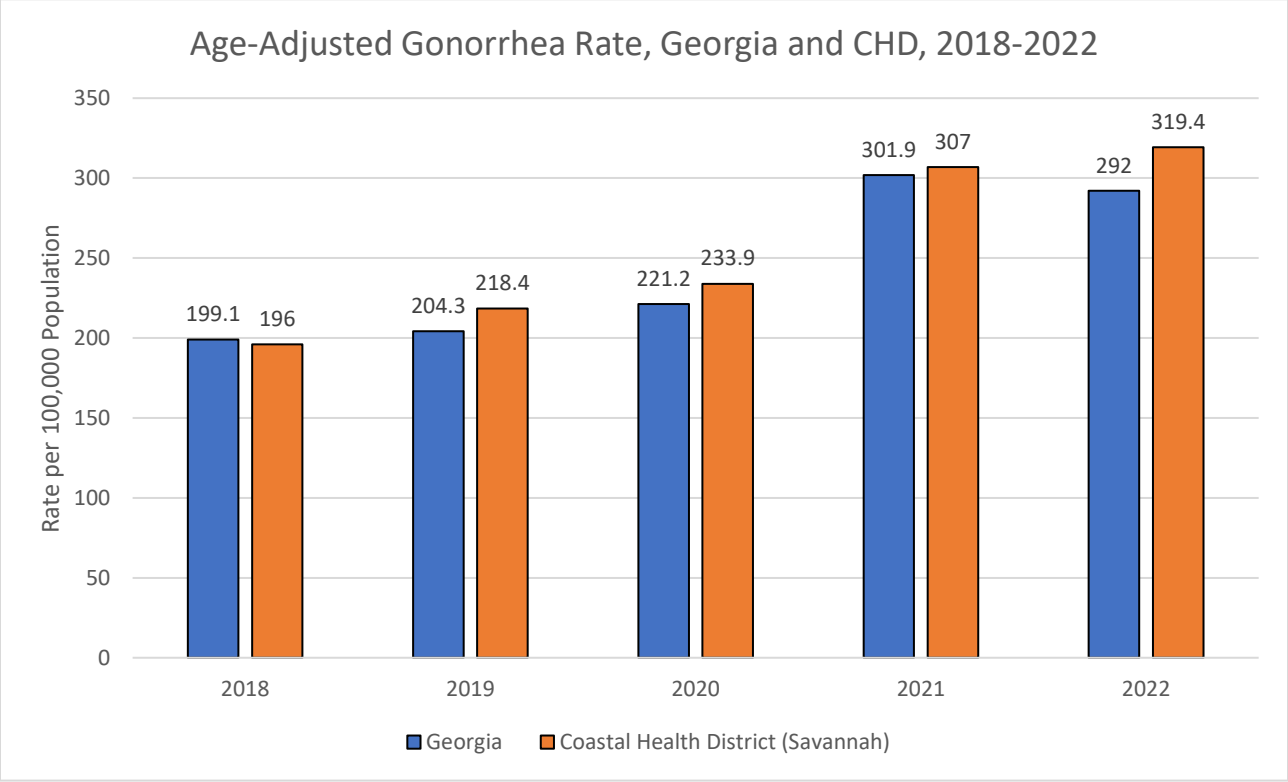
Source: OASIS

Gonorrhea

Gonorrhea is the second most reported sexually transmitted disease in the United States. Additionally, gonorrhea has progressively developed resistance to the antibiotic drugs that are typically prescribed to treat it [49]. Like chlamydia, gonorrhea is spread by having vaginal, anal, or oral sex with someone who has the disease. Gonorrhea can infect men and women and cause permanent damage to a woman's reproductive organs.

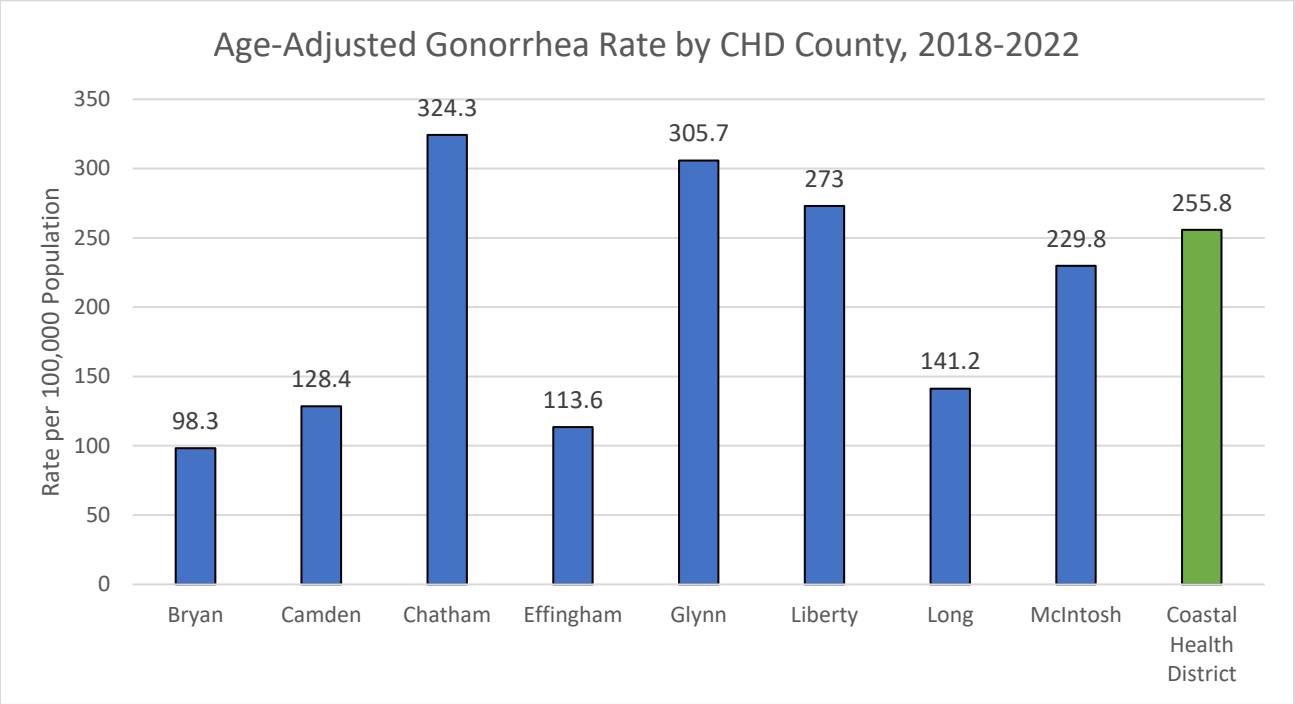
Between 2018 and 2022, the age-adjusted rate of gonorrhea was the lowest for Georgia and the CHD in 2018. Chatham County had the highest age-adjusted gonorrhea rate and Bryan County had the lowest age-adjusted gonorrhea rate. The highest total reported age-specific rates for 2018-2022 of gonorrhea in the Coastal Health District are among those between 20-24 years and 25-29 years. Gonorrhea age-adjusted rates for Black or African-Americans are disproportionately much higher than any other race. Gonorrhea age-adjusted rates were much lower for Hispanic or Latino than not Hispanic or Latino. Gonorrhea is detected more often in men than in women.

Figure 135: Age-Adjusted Gonorrhea Rate, Georgia and CHD, 2018-2022



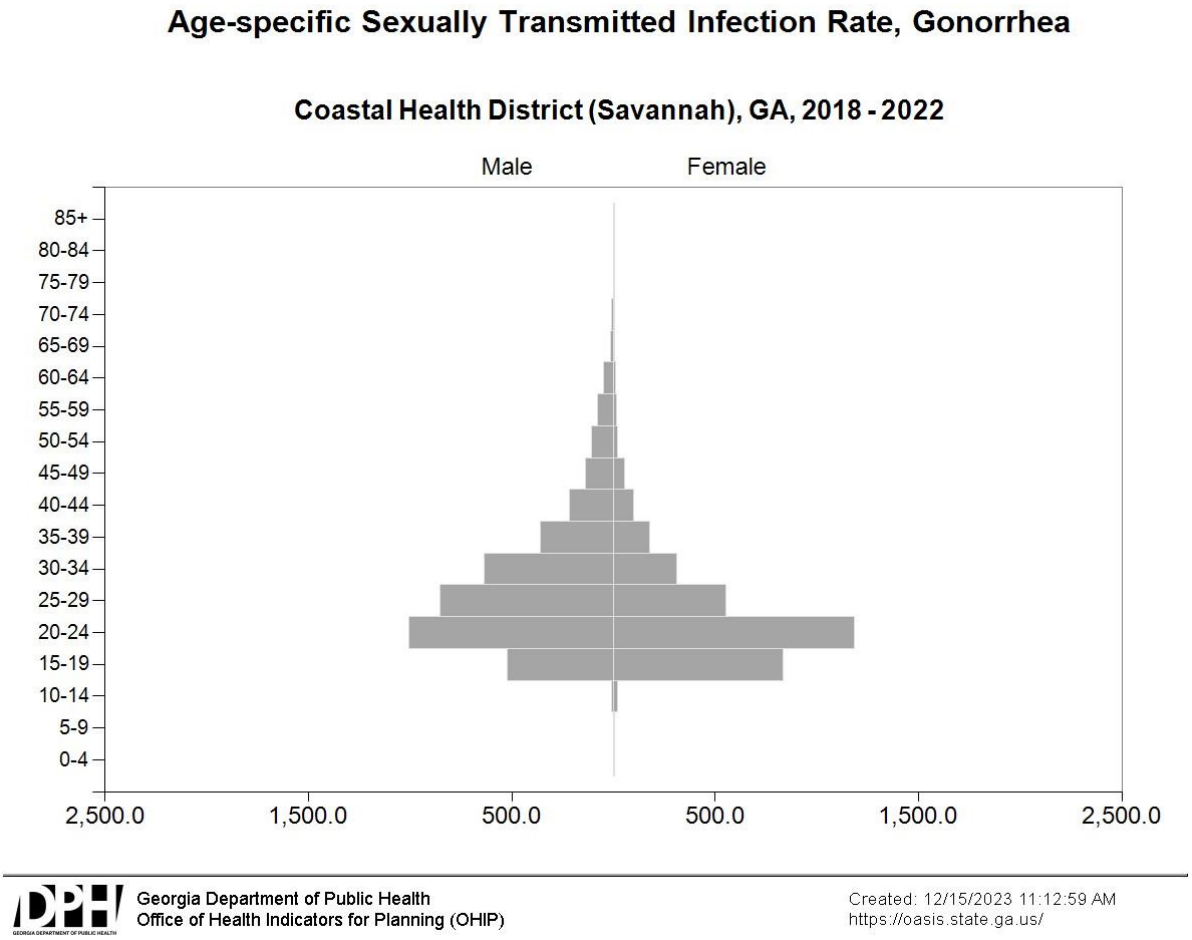
Source: OASIS

Figure 136: Age-Adjusted Gonorrhea Rate by CHD County, 2018-2022



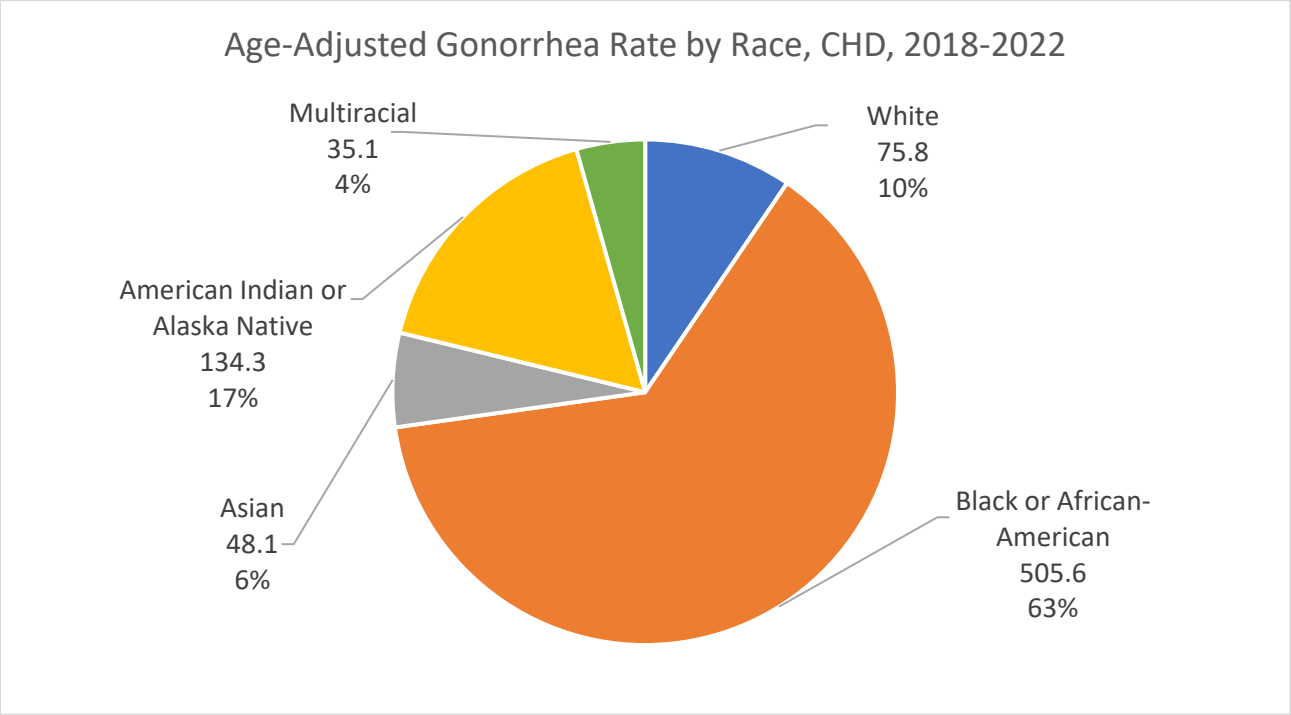
Source: OASIS

Figure 137: Age-Specific Gonorrhea Rate (per 100,000 Population), CHD, 2018-2022



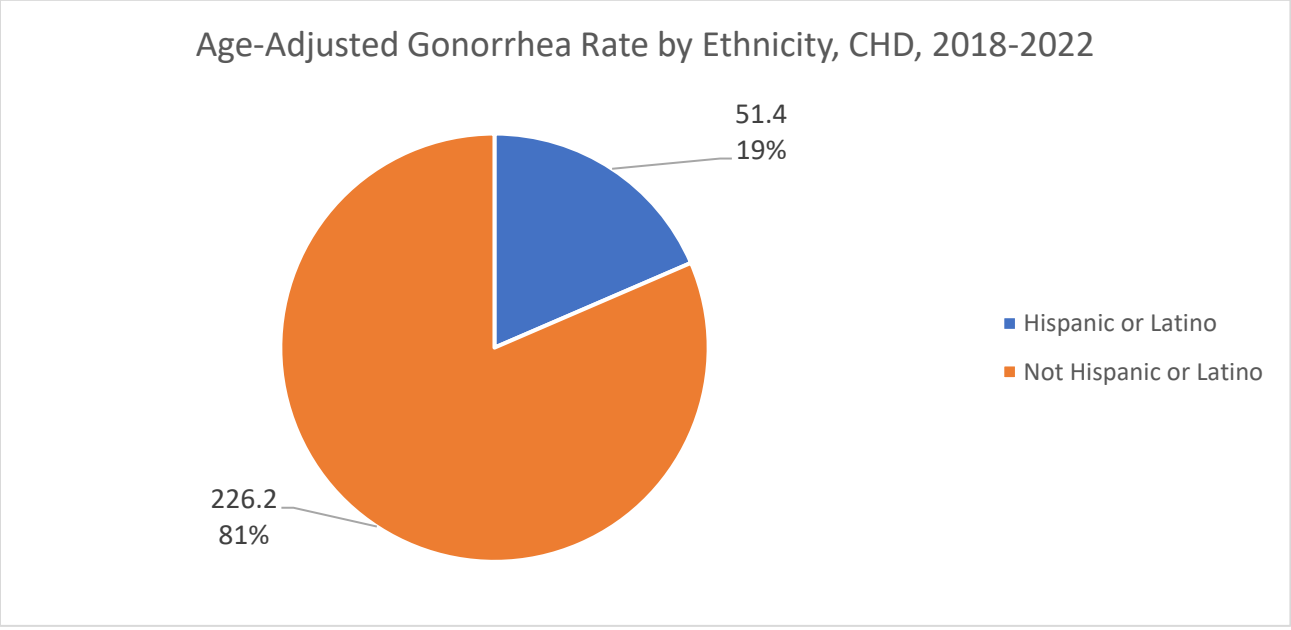
Source: OASIS

Figure 138: Age-Adjusted Gonorrhea Rate (per 100,000 Population) by Race, CHD, 2018-2022



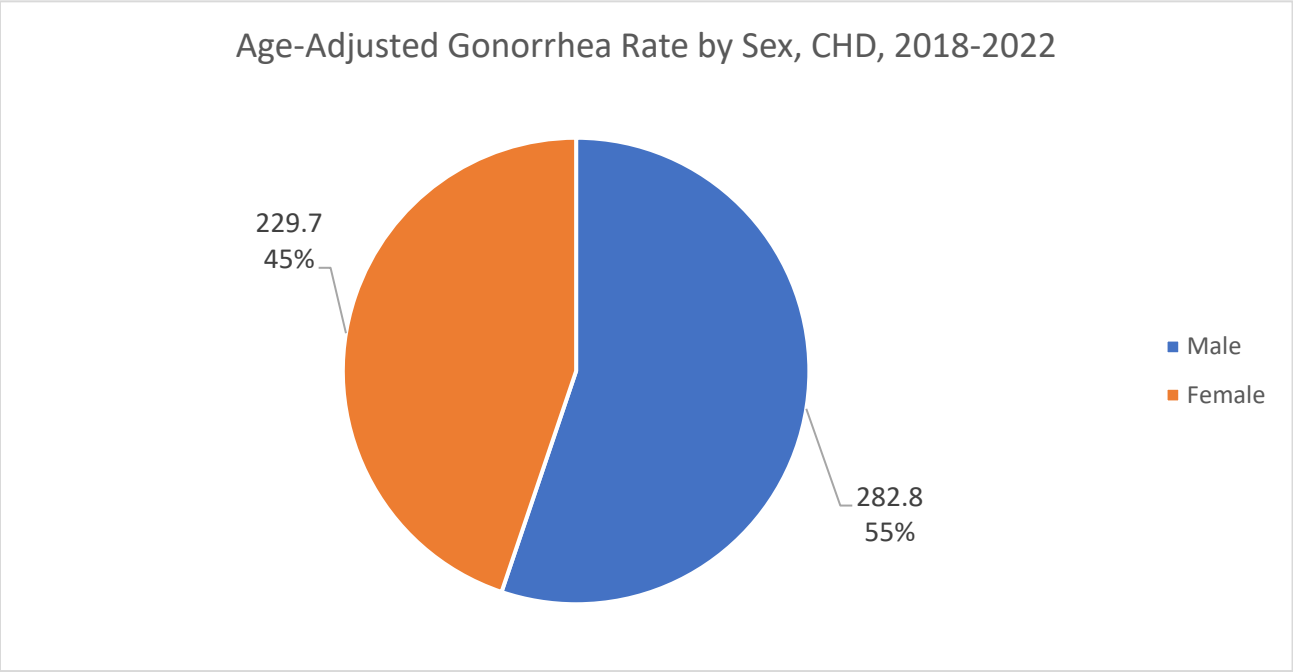
Source: OASIS

Figure 139: Age-Adjusted Gonorrhea Rate (per 100,000 Population) by Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 140: Age-Adjusted Gonorrhea Rate (per 100,000 Population) by Sex, CHD, 2018-2022



Source: OASIS

Syphilis: Primary and Secondary

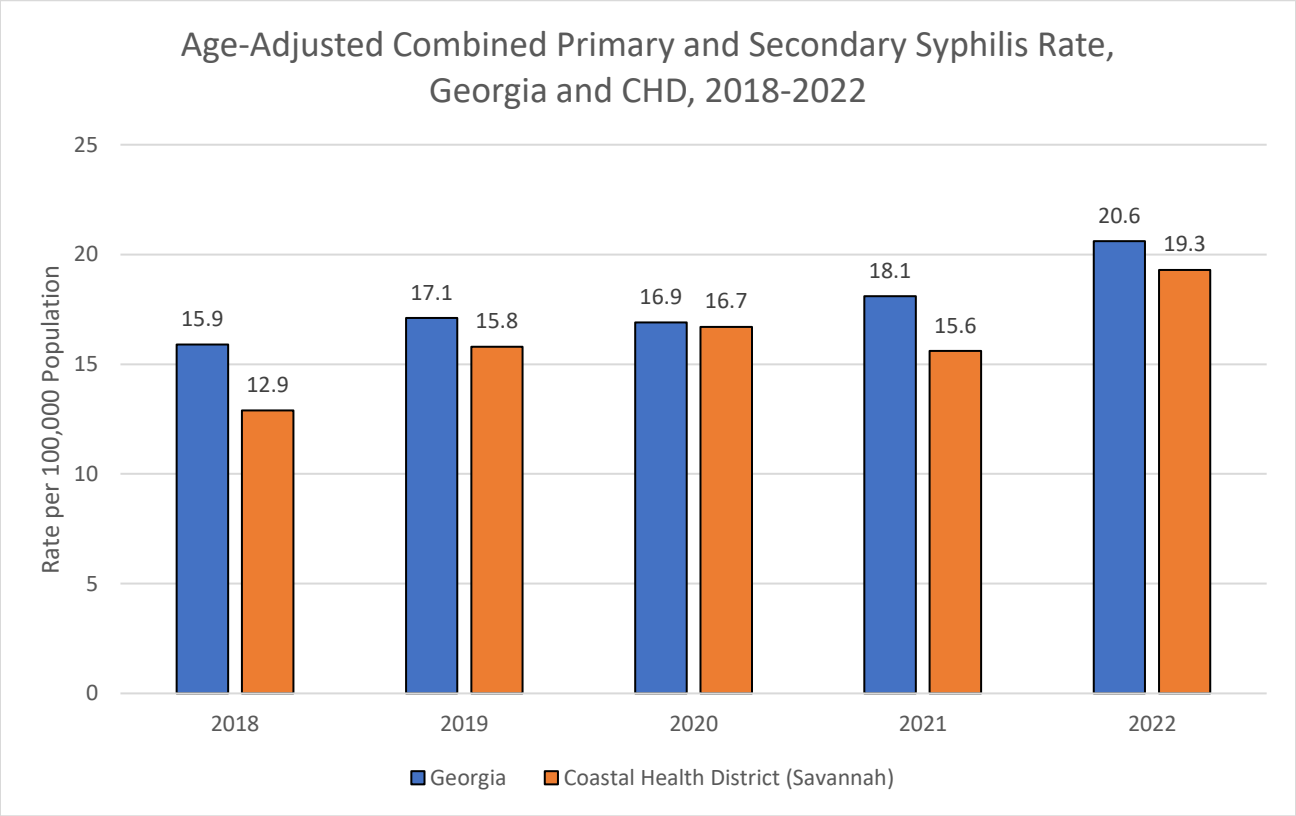
Syphilis is a sexually transmitted disease that is caused by bacteria and develops in stages that can have different signs and symptoms. It can cause serious health problems if not treated and is highly contagious. The stages are primary; secondary; latent, which is divided into early non-primary non-secondary (infection within the past twelve months) and late or of unknown duration; and tertiary [50]. This section uses primary and secondary stages, the most infectious stages.

**See appendix for age-adjusted rate of each stage of Syphilis for the CHD and primary Syphilis for Georgia and the CHD.*

Between 2018 and 2022, the age-adjusted rate of primary and secondary syphilis was the lowest for Georgia and the CHD in 2018. The Coastal Health District's age-adjusted primary and secondary syphilis rate has been consistently lower than Georgia's rate. Chatham County had the highest combined primary and secondary syphilis rate, and Effingham County had the lowest rate. The highest total reported age-specific rates for 2018-2022 of primary and secondary syphilis in the Coastal Health District are among those between 20-24 years and 30-34 years.

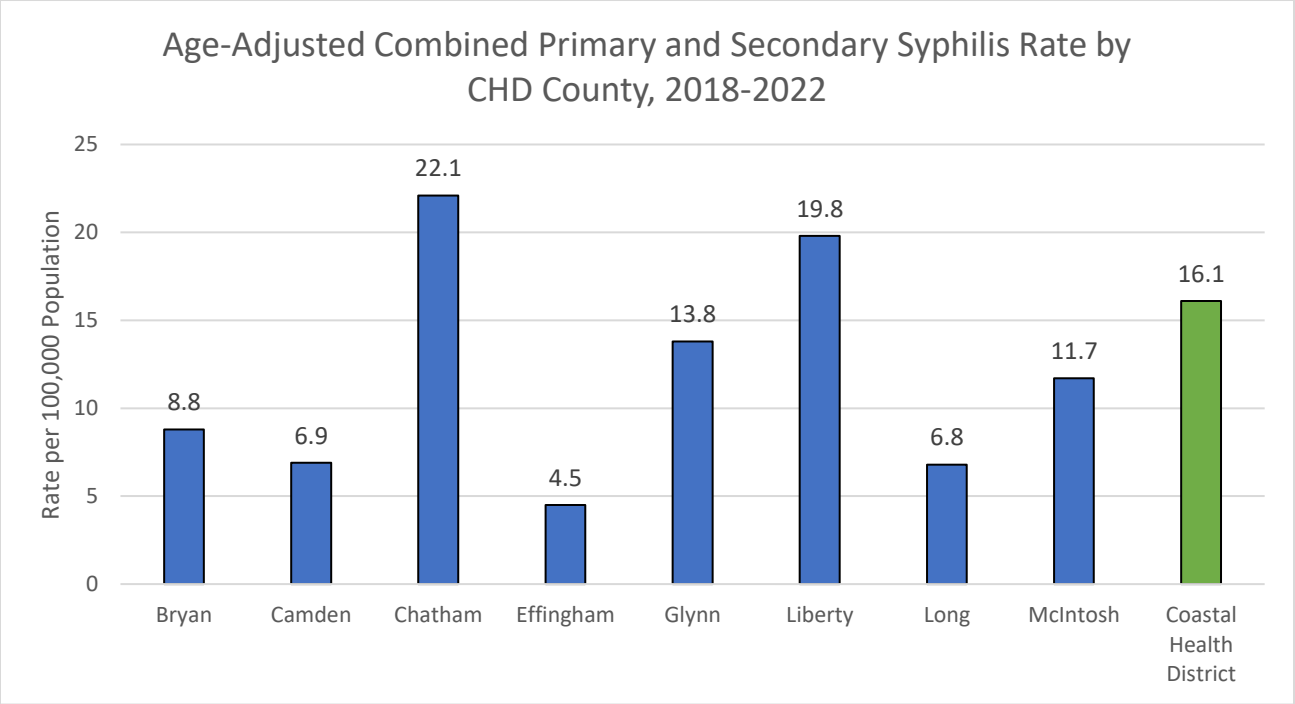
Primary and secondary age-adjusted syphilis rates disproportionately affect Black or African-Americans at much higher rates than any other race. American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander are not included in the chart because there weren't reported cases for the time frame. Asian and Multiracial percentages were suppressed due to numbers being too low. Age-adjusted rates of primary and secondary syphilis were lower for Hispanic or Latino than not Hispanic or Latino. Primary and secondary syphilis is reported more often in men than in women.

Figure 141: Age-Adjusted Combined Primary & Secondary Syphilis Rate, Georgia and CHD, 2018-2022



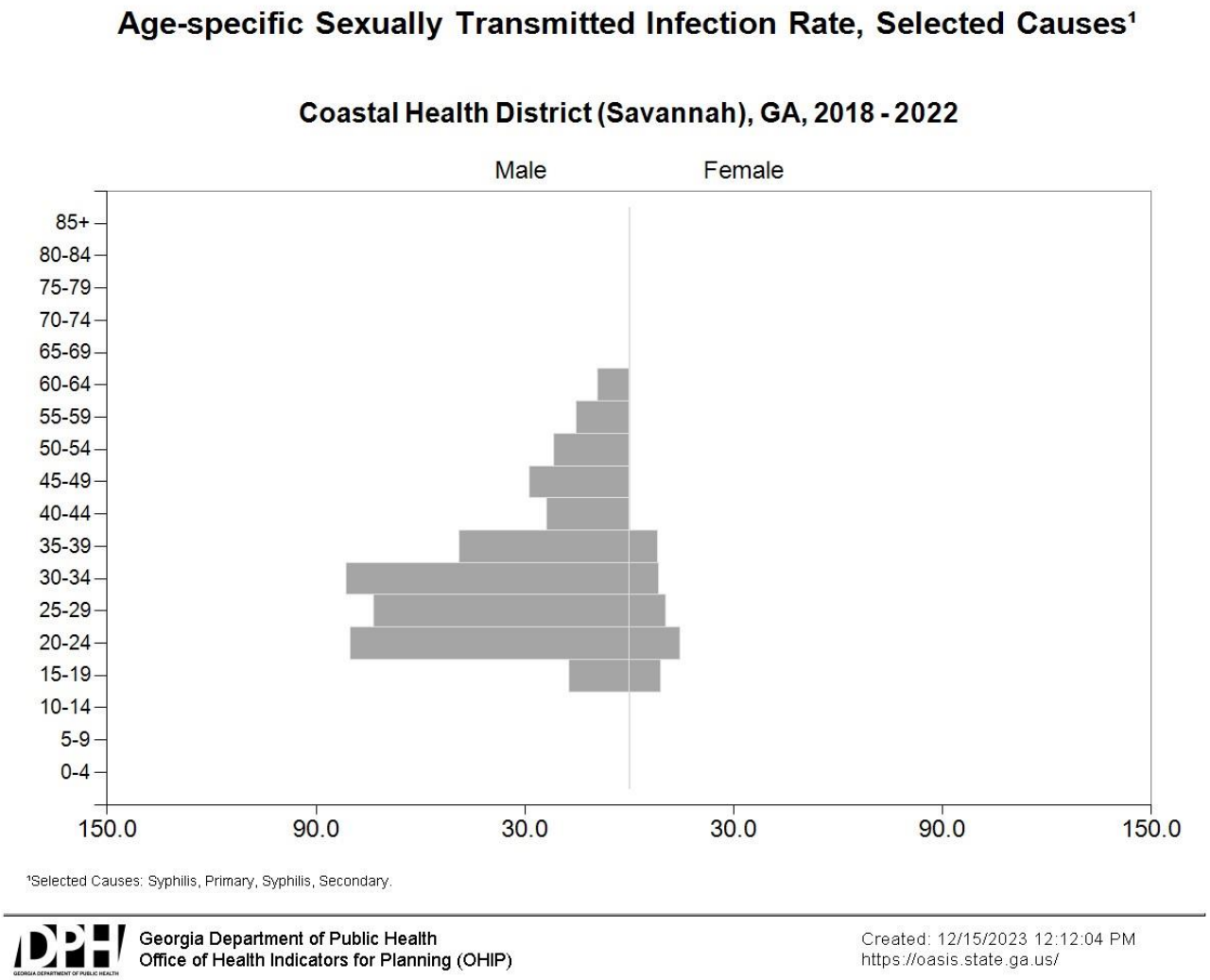
Source: OASIS

Figure 142: Age-Adjusted Combined Primary and Secondary Syphilis Rate by CHD County, 2018-2022



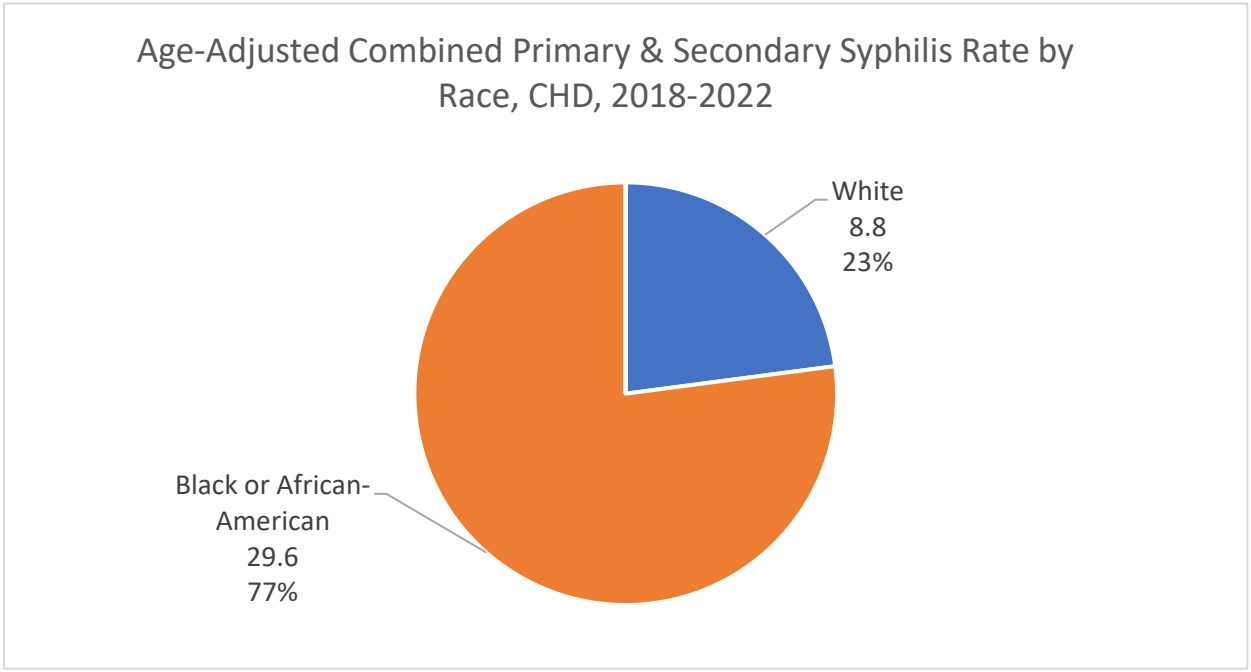
Source: OASIS

Figure 143: Age-Specific Combined Primary & Secondary Syphilis Rate (per 100,000 Population), CHD, 2018-2022



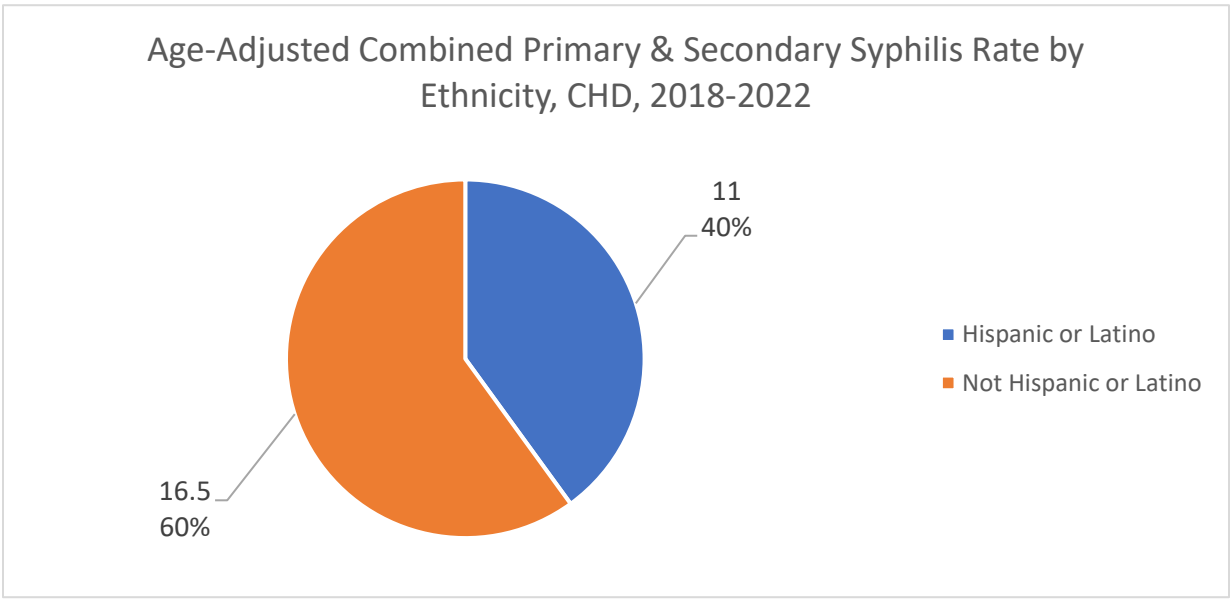
Source: OASIS

Figure 144: Age-Adjusted Combined Primary and Secondary Syphilis Rate (per 100,000 Population) by Race, CHD, 2018-2022



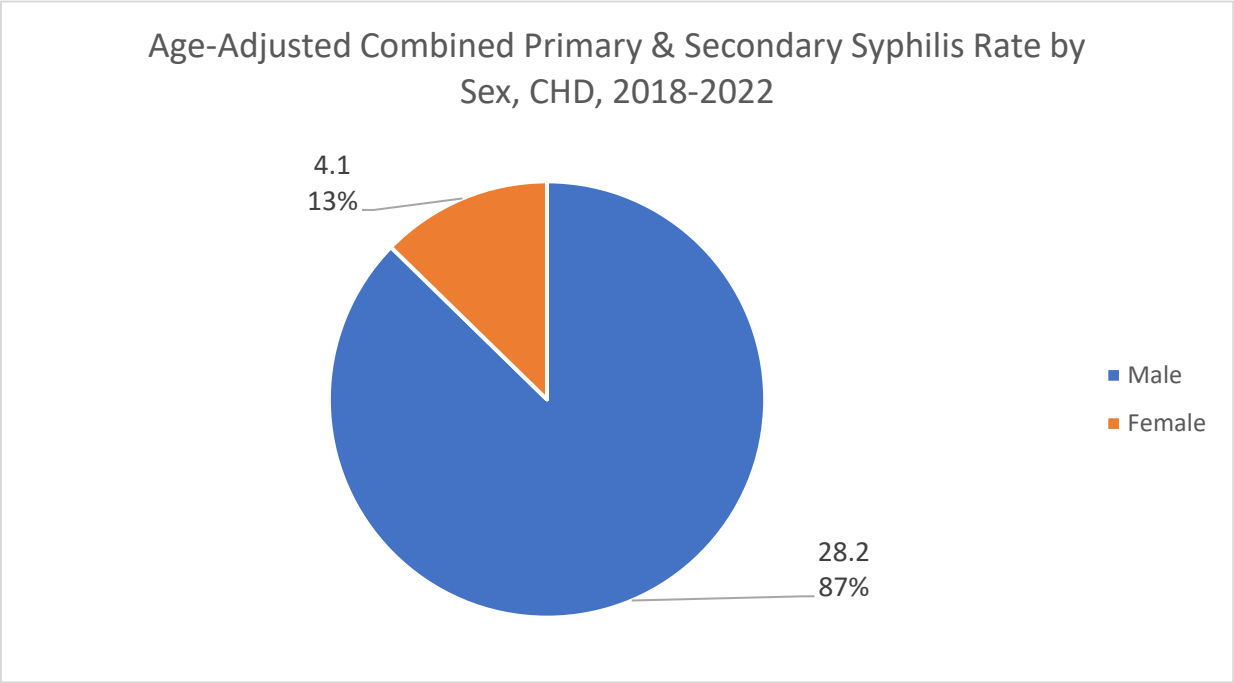
Source: OASIS

Figure 145: Age-Adjusted Combined Primary and Secondary Syphilis Rate (per 100,000 Population) by Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 146: Age-Adjusted Combined Primary and Secondary Syphilis Rate (per 100,000 Population) by Sex, CHD, 2018-2022



Source: OASIS

HIV/AIDS

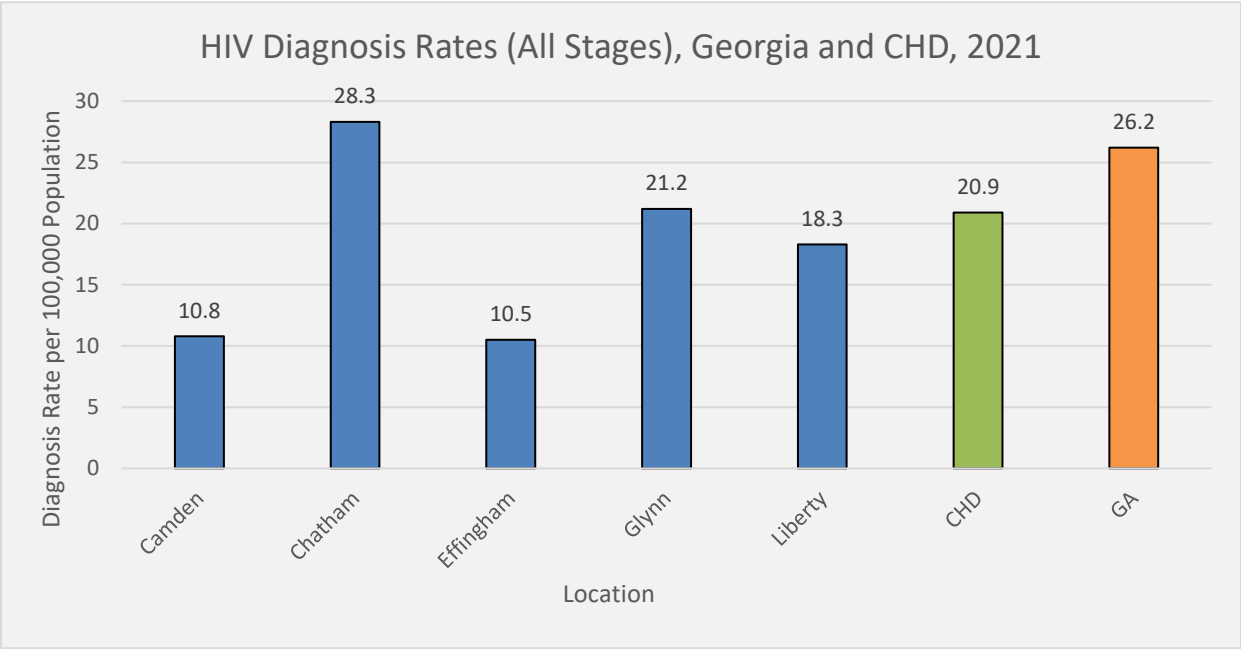
Human Immunodeficiency Virus (HIV) is a virus that gradually attacks the immune system, which is our body's natural defense against illness. The virus destroys a type of white blood cell called a T-helper cell and makes copies of itself inside them. T-helper cells are also referred to as CD4 cells. There are many different strains of HIV which are classified into types with many different groups and subtypes. The two main types of HIV are HIV-1 which is the most common type found worldwide and HIV-2 which is found mainly in Western Africa with some cases in India and Europe [51].

HIV is most commonly spread by direct contact with blood or semen or vaginal fluid during unprotected sex with an infected partner [52]. It is also spread among injection drug users by sharing needles contaminated with HIV. Furthermore, an infected mother can pass HIV to her infant during pregnancy or delivery, as well as through breastfeeding. Although there is no cure, HIV can be controlled with proper treatment. However, without medical intervention, HIV can progress into AIDS, the most severe stage of HIV.

AIDS (acquired immune deficiency syndrome) is a syndrome caused by HIV. When a person develops AIDS, the immune system becomes too weak to fight off opportunistic infections. Timely medical treatment, including antiretroviral therapy, is crucial in managing HIV progression and preventing advancement to AIDS. Regular medical monitoring and adherence to treatment plans can significantly improve the long-term prognosis of individuals living with HIV.

The data used for this section is the most current year available, 2021. CHD's HIV diagnosis rate of 20.9 per 100,000 is lower than Georgia's HIV diagnosis rate of 26.2 per 100,000 [53]. When broken down by county, HIV diagnosis rates range from 10.5-28.3 per 100,000. Due to numbers being too low, rates are not given for Bryan, Long, & McIntosh County. Rates for Bryan County and Long County were censored for privacy and confidentiality. McIntosh County did not have any HIV diagnoses for the year 2021. The HIV diagnosis rate for Chatham County, which is the highest, is more than 2.5 times that of Effingham County, the lowest.

Figure 147: HIV Diagnosis Rates (All Stages), Georgia and CHD, 2021

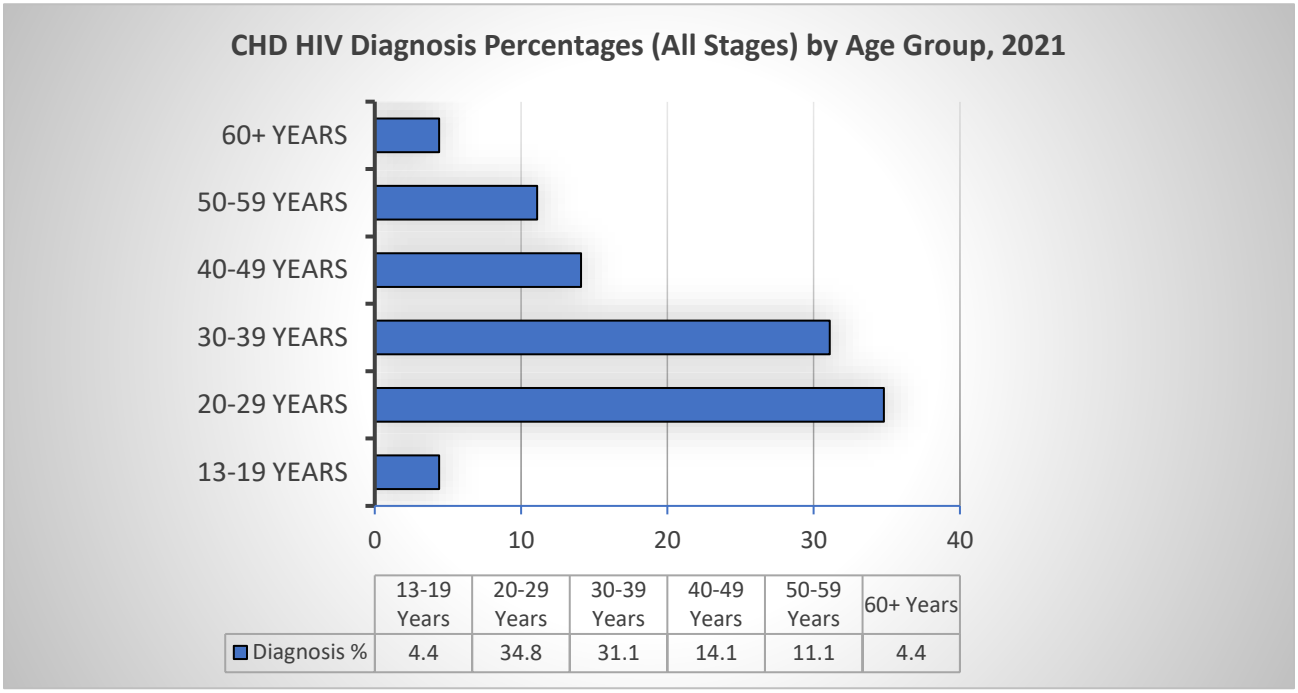


Source: DPH HIV Surveillance Data

The figures below show the CHD HIV diagnosis percentages (all stages) broken down by age group, race/ ethnicity, and gender identity. Due to numbers being too low data suppression was used for ages under 13 years.

For age group, HIV diagnosis percentage is highest among the 20-29 years age group. The HIV diagnosis percentage is highest among black, non-Hispanics, followed by white, non-Hispanic and Hispanic/Latino, any race. The rate was lowest for multiple races at 3.7%. There were no HIV diagnoses for American Indian/ Alaska Native and Asian/Native Hawaiian/ Pacific Islander in the CHD for 2021. The HIV diagnosis percentage is highest for cisgender males, who make up approximately 75% of HIV diagnoses.

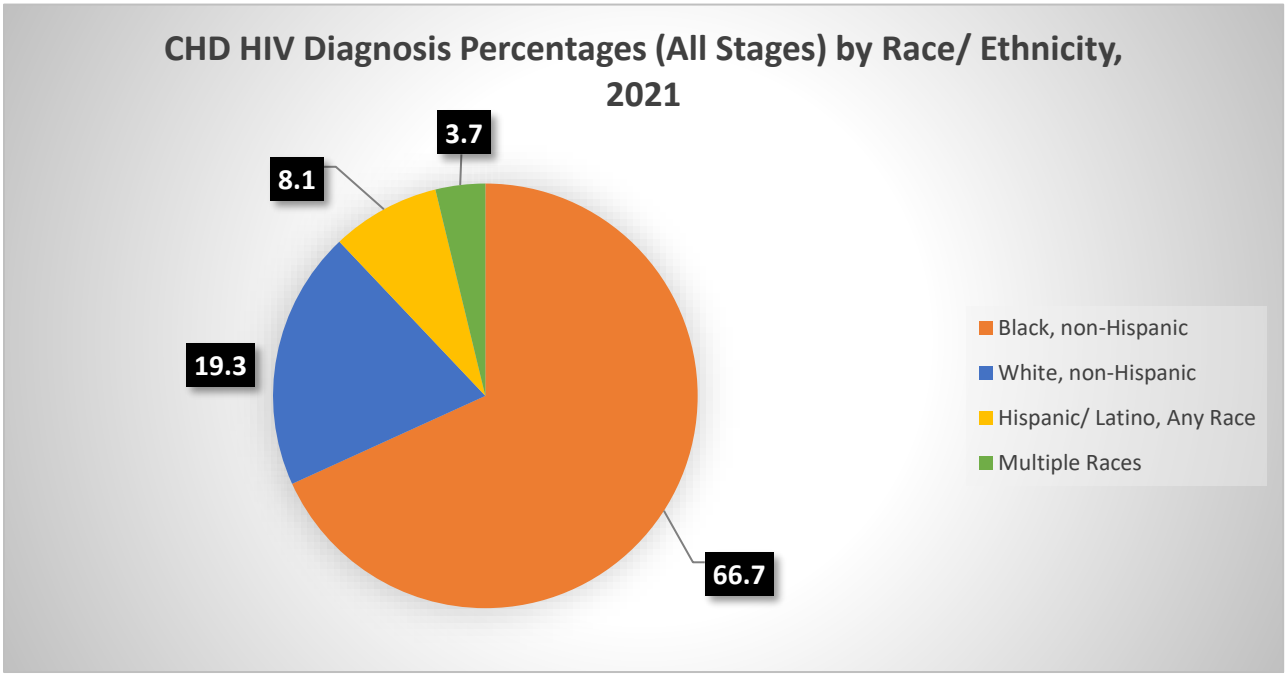
Figure 148: CHD HIV Diagnosis Percentages (All Stages) per 100,000 Population by Age Group, 2021



	13-19 Years	20-29 Years	30-39 Years	40-49 Years	50-59 Years	60+ Years
Diagnosis %	4.4	34.8	31.1	14.1	11.1	4.4

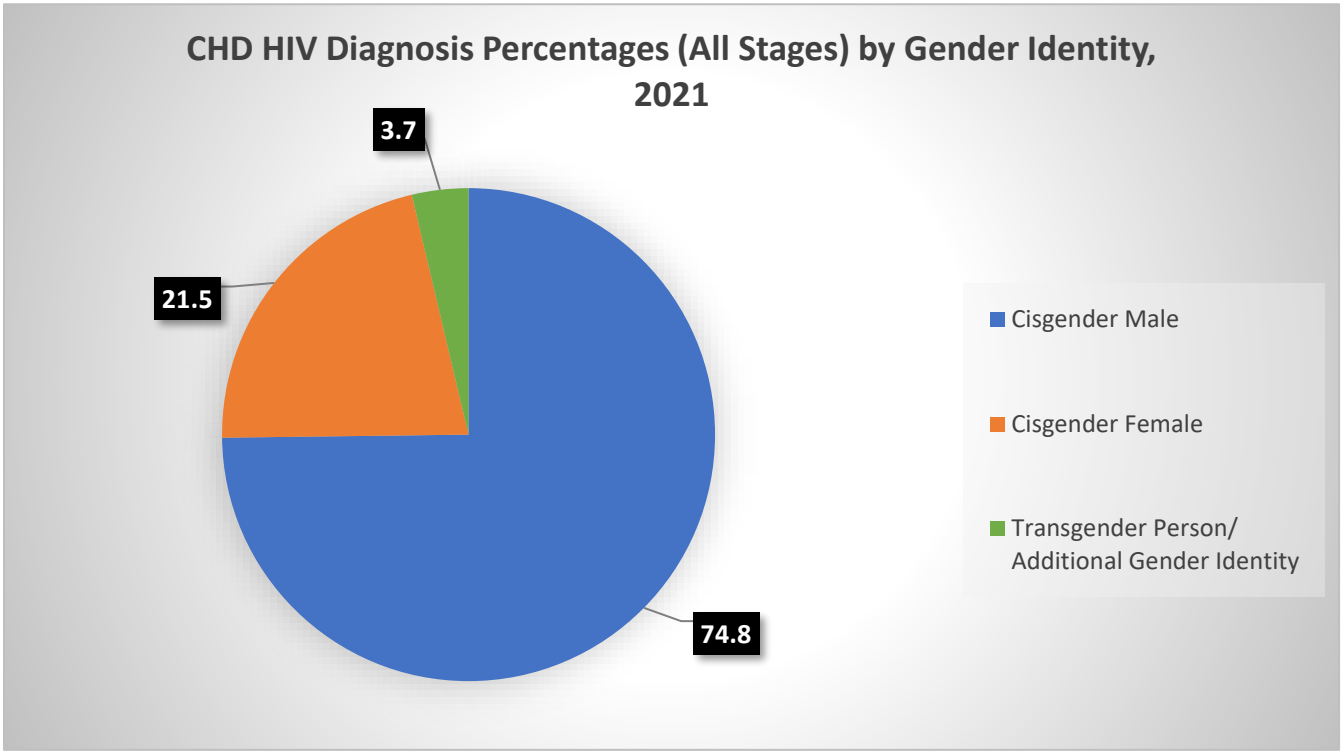
Source: DPH HIV Surveillance Data

Figure 149: CHD HIV Diagnosis Percentages *(All Stages) per 100,000 Population by Race/ Ethnicity, 2021*



Source: DPH HIV Surveillance Data

Figure 150: CHD HIV Diagnosis Percentages (All Stages) per 100,000 Population by Gender Identity, 2021



Source: DPH HIV Surveillance Data

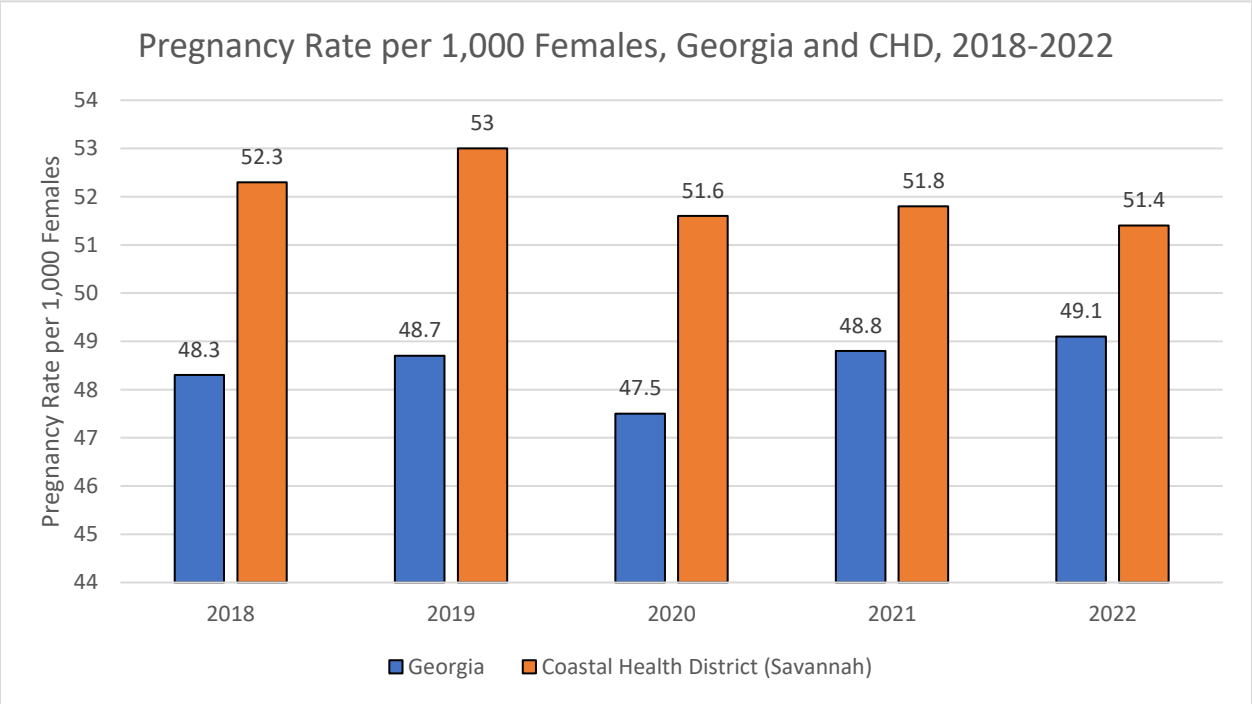
Maternal and Infant Health

Pregnancy and Birth

Improving the health and well-being of mothers, infants and children is an important public health goal for the United States. Maternal and infant health is often an important indicator of a nation's overall health status as it predicts the health of future generations. The health of expectant mothers directly influences the trajectory of newborns, setting the stage for a lifetime of physical and mental prosperity. Addressing maternal and infant health not only safeguards individual lives but also fortifies the collective resilience of communities, ensuring a healthier and more vibrant future for generations to come.

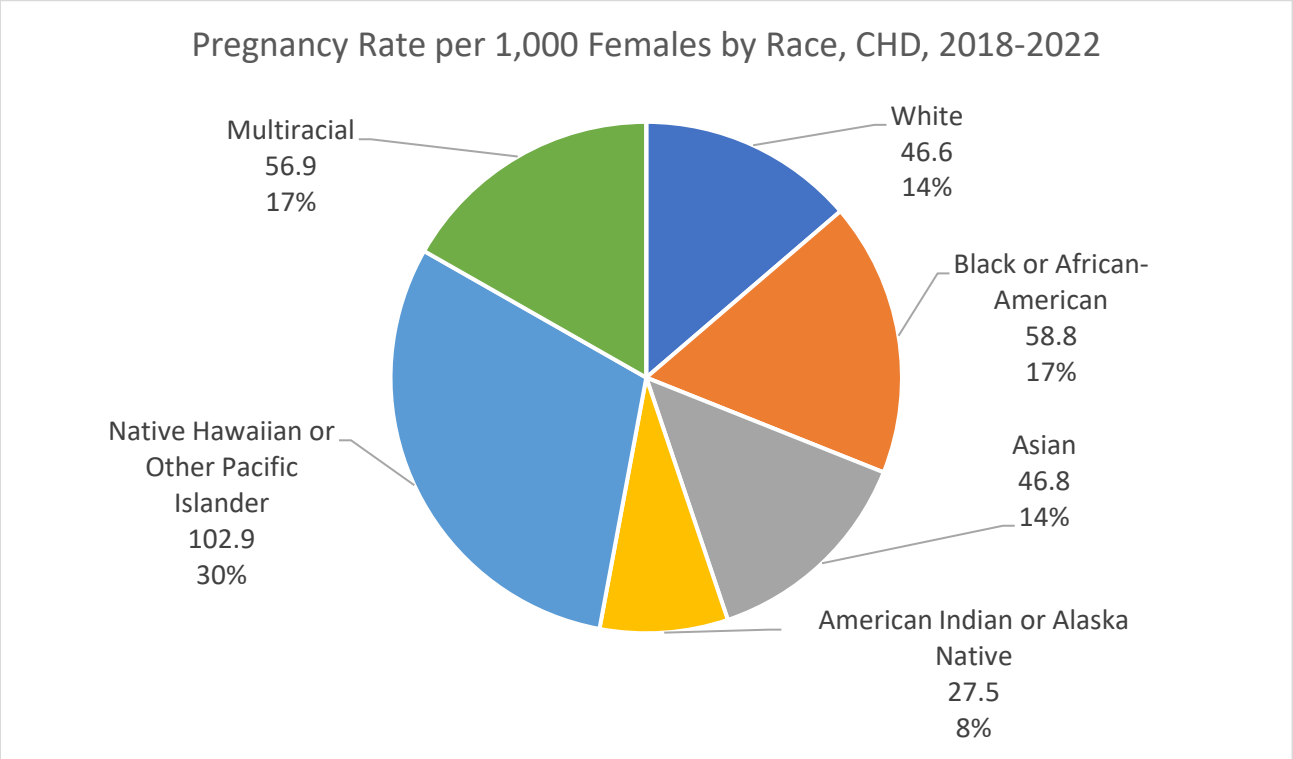
The Coastal Health District has a higher pregnancy rate compared to Georgia for 2018-2022. Native Hawaiian or Other Pacific Islander had the largest pregnancy rate per 1,000 females for the total selected years of 2018-2022. In the CHD, Hispanic made up the largest pregnancy rate compared to non-Hispanic. The two age groups that have the highest pregnancy rates in the CHD are females between 25 and 29 years and between 20 and 24 years. The age groups with the lowest pregnancy rates are females between 10 and 14 years and between 45 and 55 years. Liberty County had the highest pregnancy rate and McIntosh County had the lowest pregnancy rate.

Figure 151: Pregnancy Rate per 1,000 Females, Georgia and CHD, 2018-2022



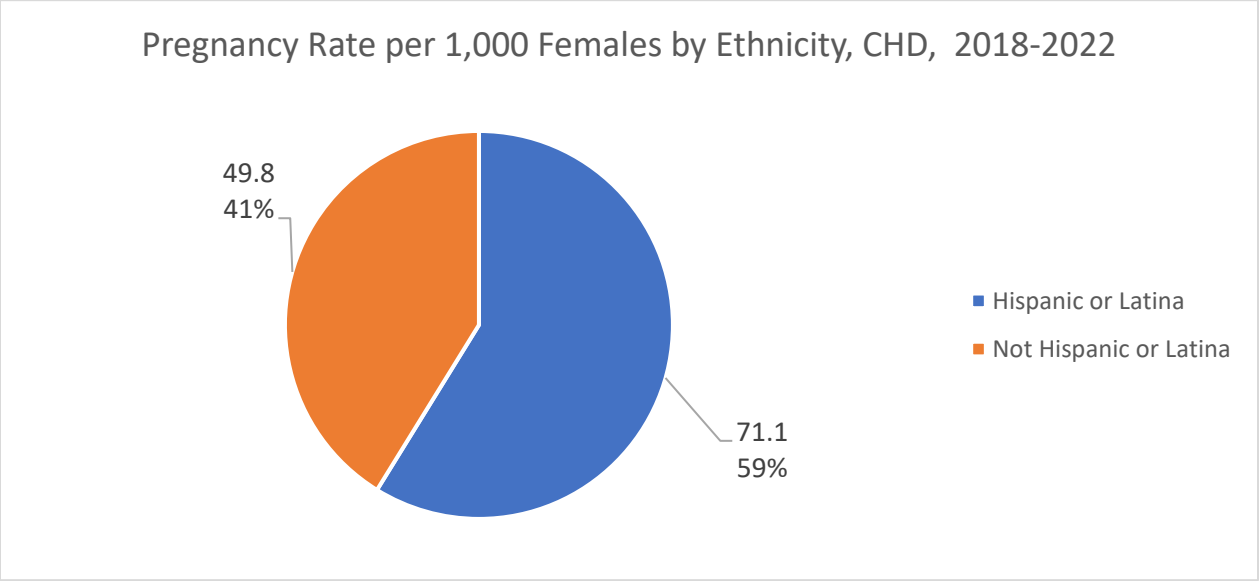
Source: OASIS

Figure 152: Pregnancy Rate per 1,000 Females by Race, CHD, 2018-2022



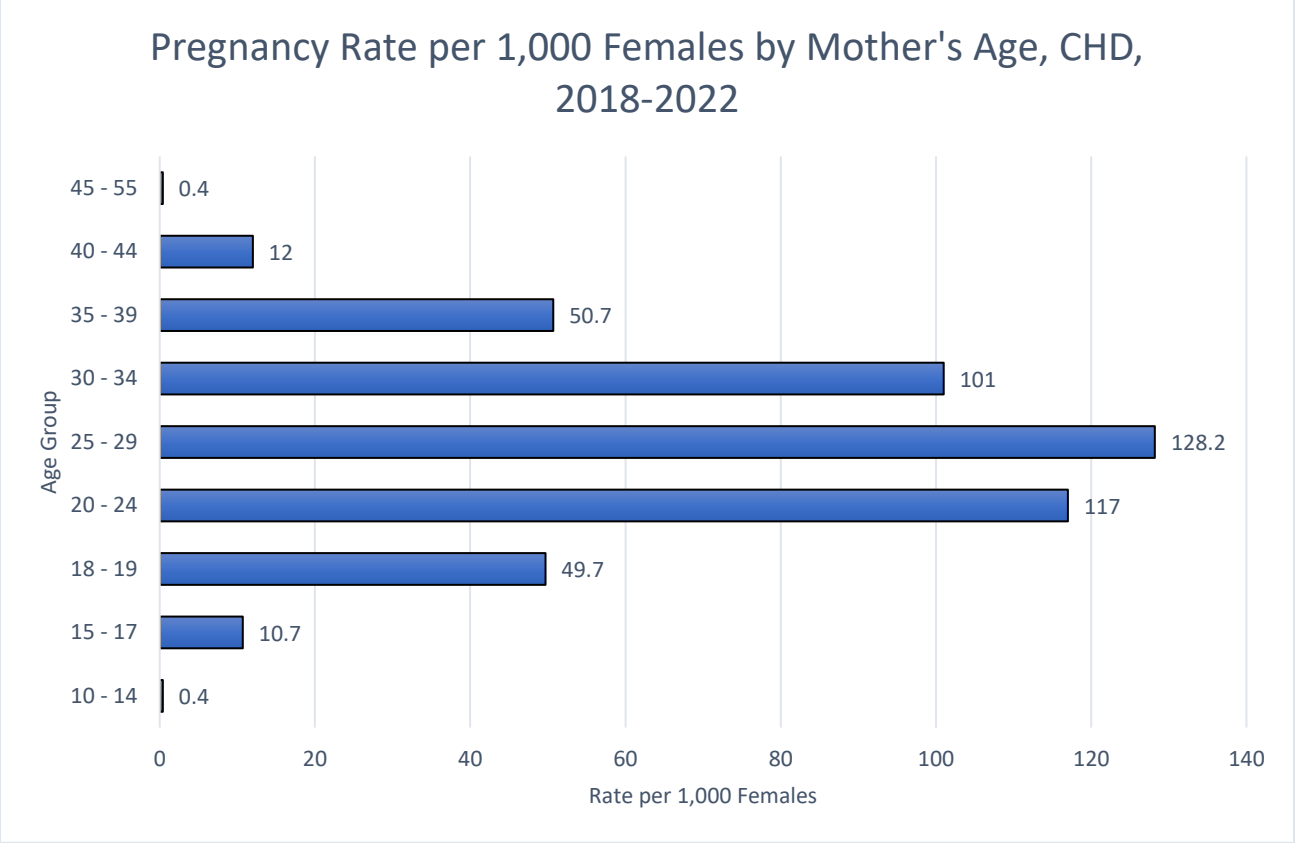
Source: OASIS

Figure 153: Pregnancy Rate per 1,000 Females by Ethnicity, CHD, 2018-2022



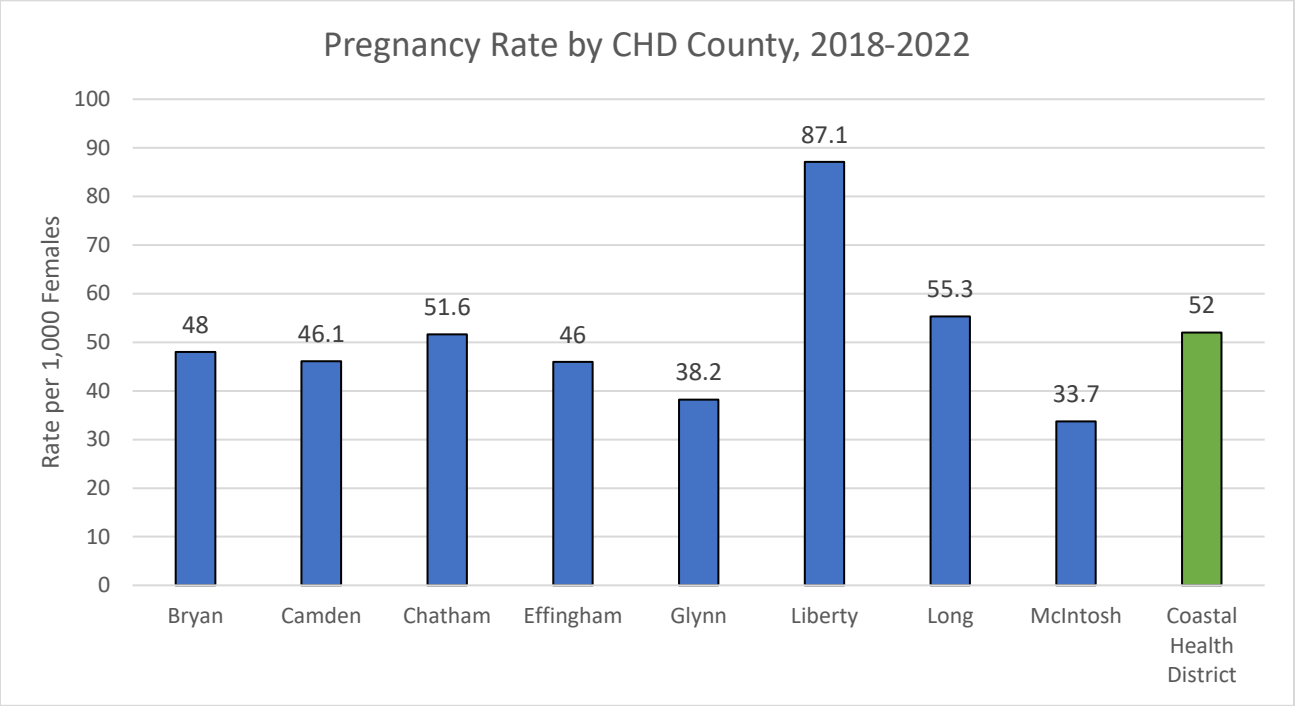
Source: OASIS

Figure 154:Pregnancy Rate per 1,000 Females by Mother's Age, CHD, 2018-2022



Source: OASIS

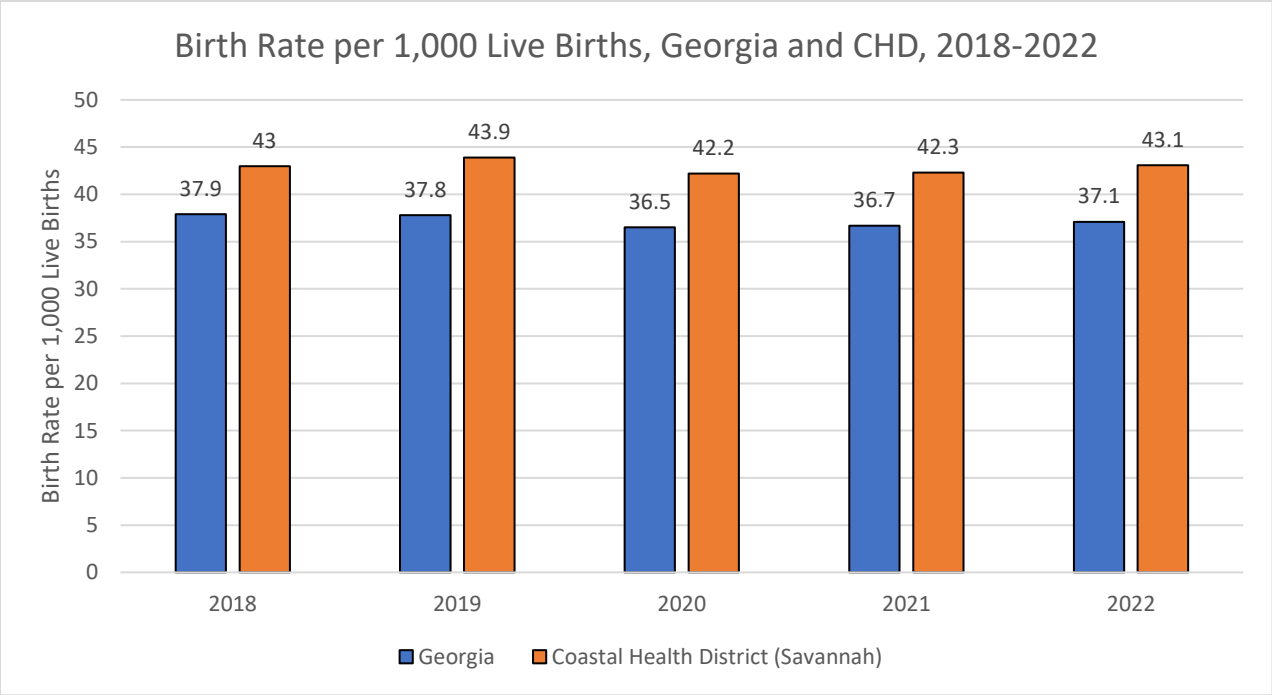
Figure 155: Pregnancy Rate by CHD County, 2018-2022



Source: OASIS

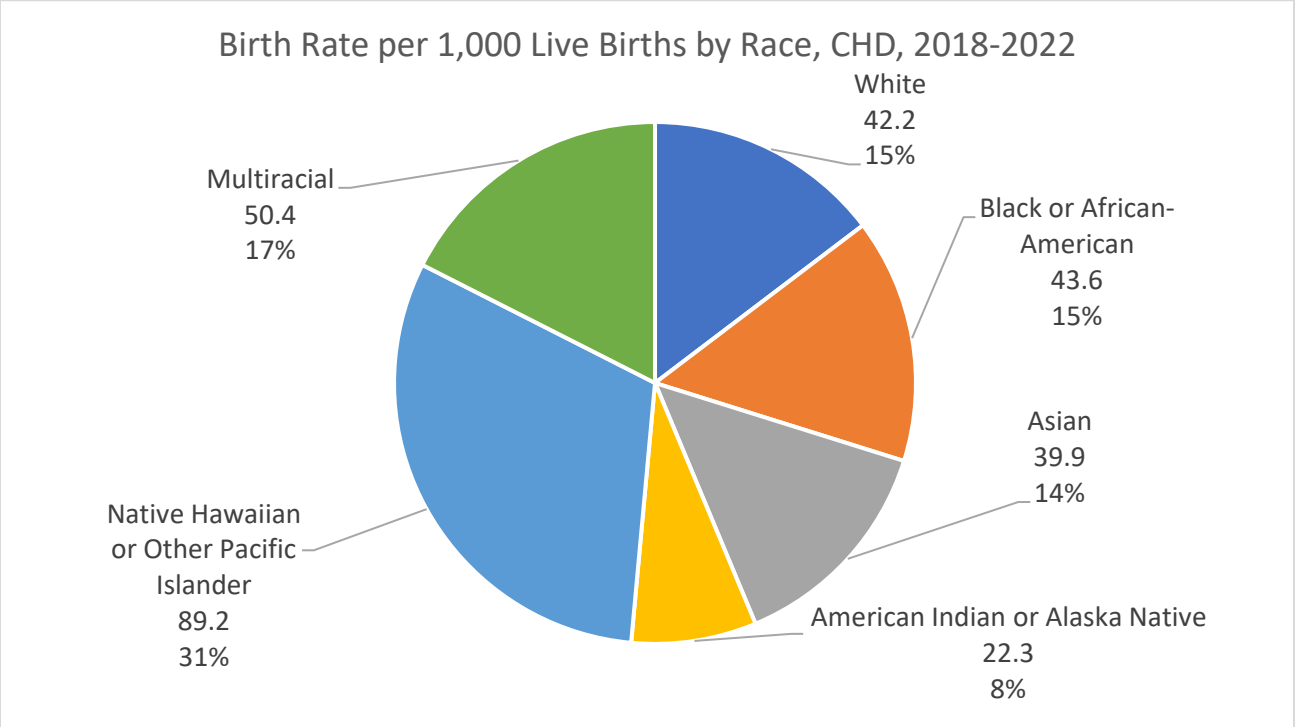
The birth rate is defined as the number of live births occurring in females in an age group per 1,000 females in the same age group. From 2018-2022, the Coastal Health District had a higher birth rate than Georgia. Similar to the pregnancy rate, Native Hawaiian or Other Pacific Islander and Hispanic had the highest birth rates in the CHD for the total years of 2018-2022. The two age groups that have the highest birth rates in the CHD are mothers between 25 and 29 years and mothers between 20 and 24 years. Additionally, the age groups with the lowest rates are mothers between 10 and 14 years and between 45 and 55 years. Liberty County had the highest birth rate and McIntosh County had the lowest birth rate.

Figure 156: Birth Rate per 1,000 Live Births, Georgia and CHD, 2018-2022



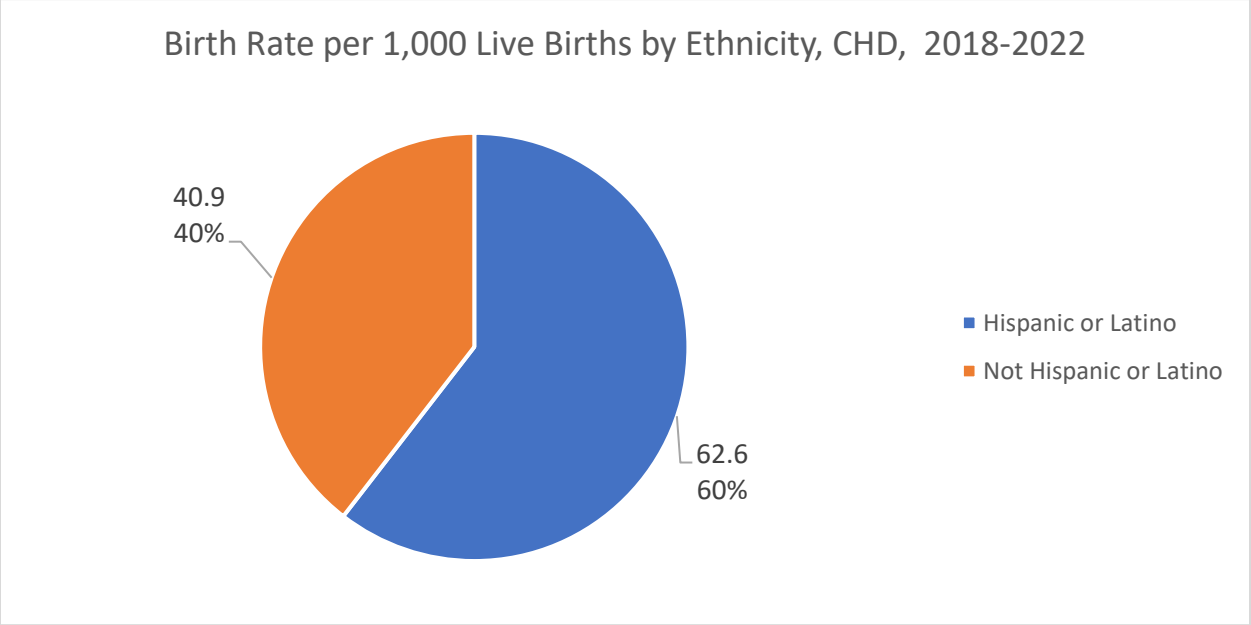
Source: OASIS

Figure 157: Birth Rate per 1,000 Live Births by Race, CHD, 2018-2022



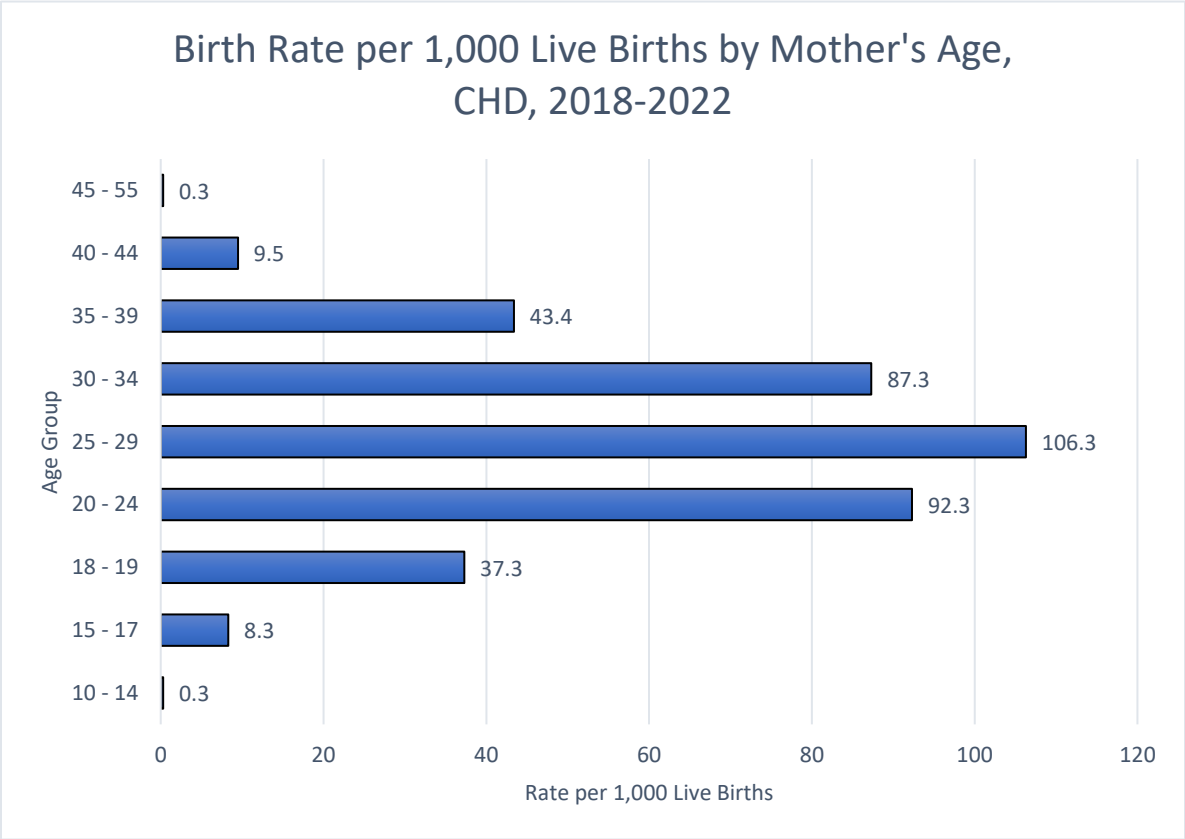
Source: OASIS

Figure 158: Birth Rate per 1,000 Live Births by Ethnicity, CHD, 2018-2022



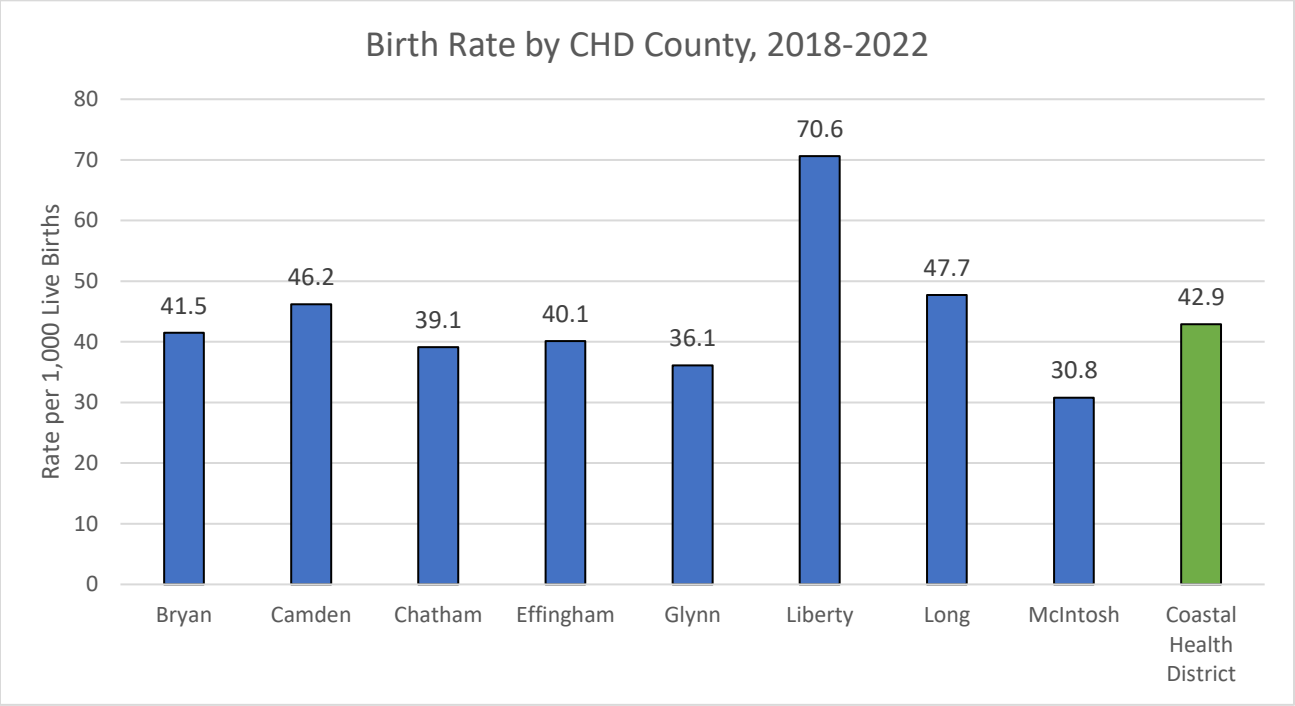
Source: OASIS

Figure 159: Birth Rate per 1,000 Live Births by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 160: Birth Rate by CHD County, 2018-2022

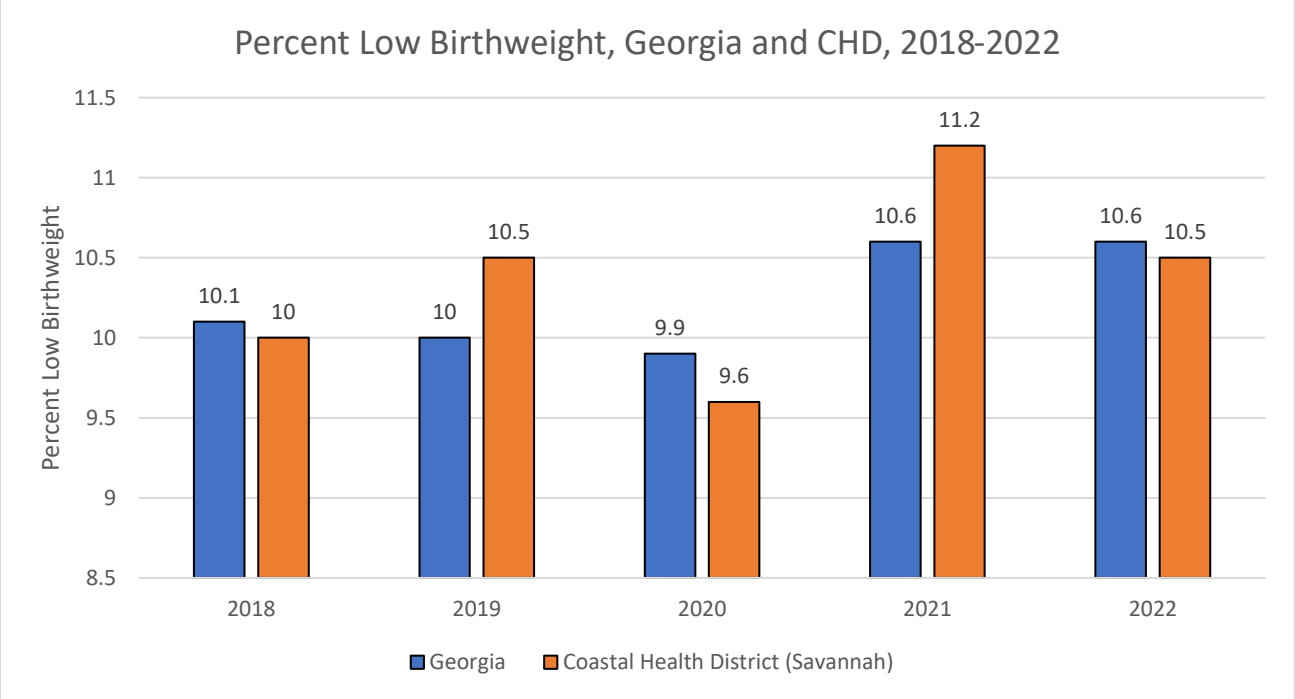


Source: OASIS

Low Birthweight

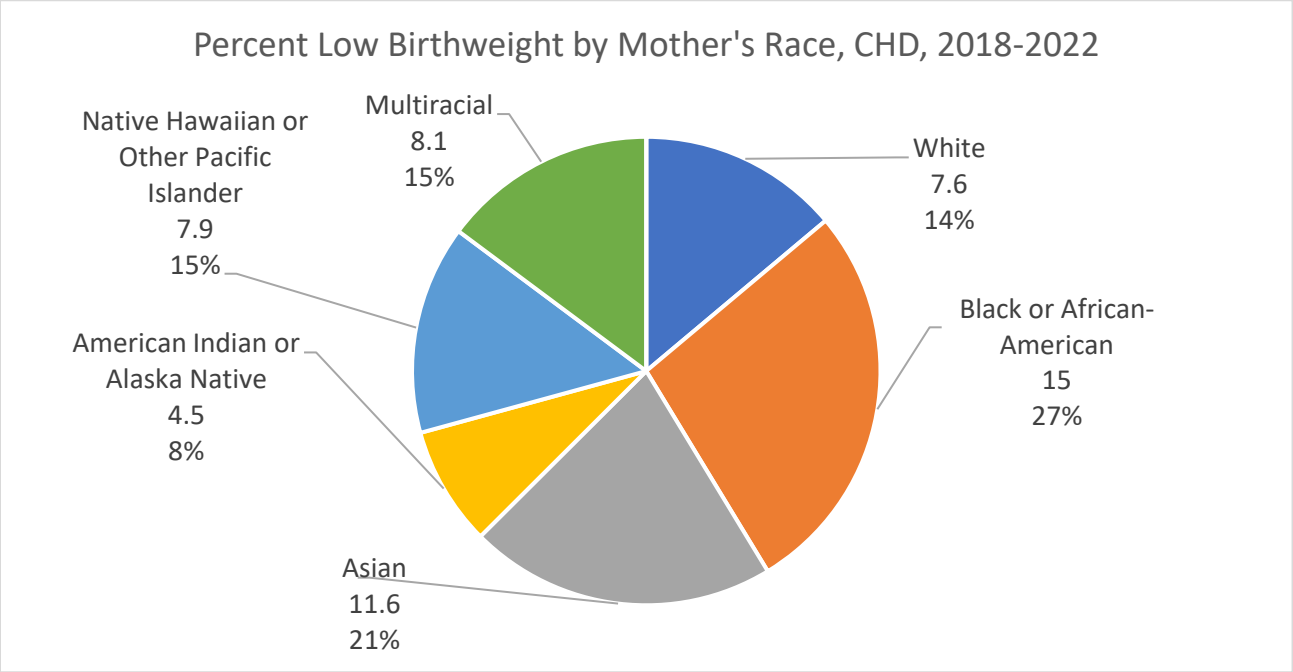
An infant's weight is recorded at the time of birth. If the birthweight is less than 2500 grams (5lbs. 8oz.), then the infant is considered to have a low birthweight. The CHD percent of low birthweight has alternated between being higher and lower than Georgia's percentage of low birthweight per 100 live births between 2018 and 2022. In 2021, the CHD and Georgia had significantly higher percentages of low birthweight compared to the other years in the 5-year period. Additionally, the CHD had a 16.67% increase from 2020 to 2021. The percentage of low birthweight by race and ethnicity in the CHD is highest for Black or African-American (27%), followed by Asian (21%), and non-Hispanic. The two age groups with the highest percentage of low birthweights in the CHD are 10-14 years and 45-55 years. McIntosh County had the highest percentage of low birthweights and Bryan County had the lowest percentage of low birthweights.

Figure 161: Percent Low Birthweight, Georgia and CHD, 2018-2022



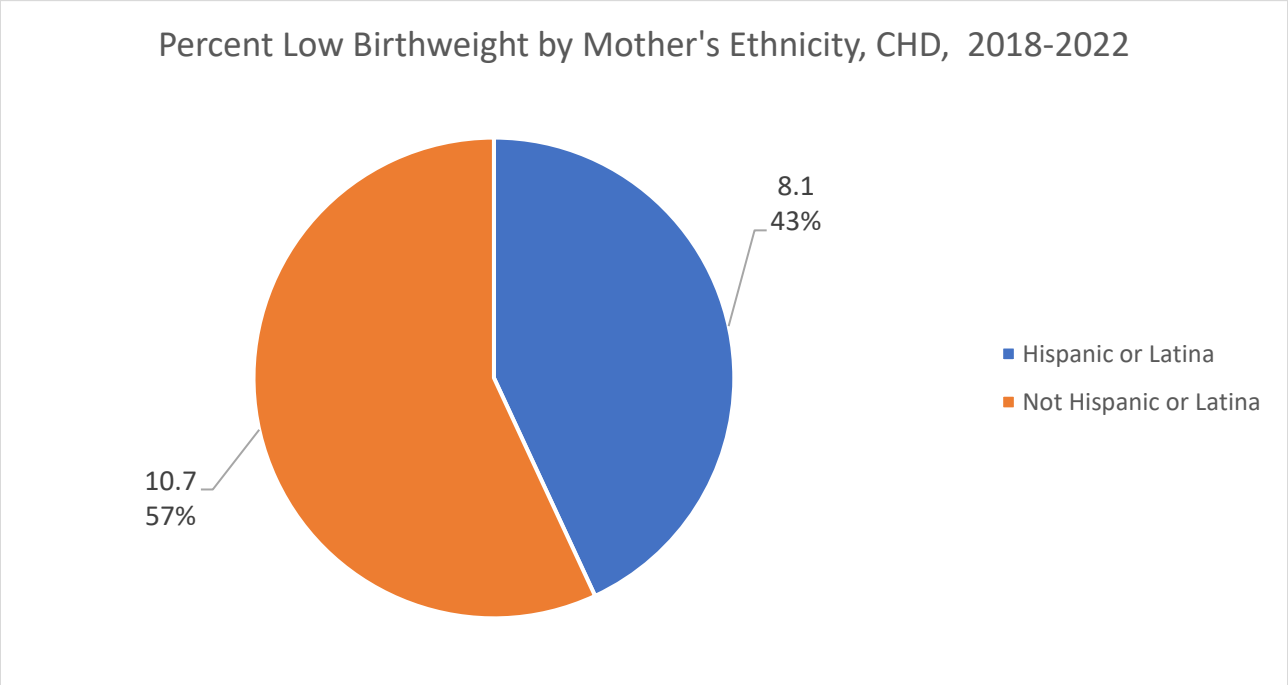
Source: OASIS

Figure 162: Percent Low Birthweight by Mother's Race, CHD, Total 2018-2022



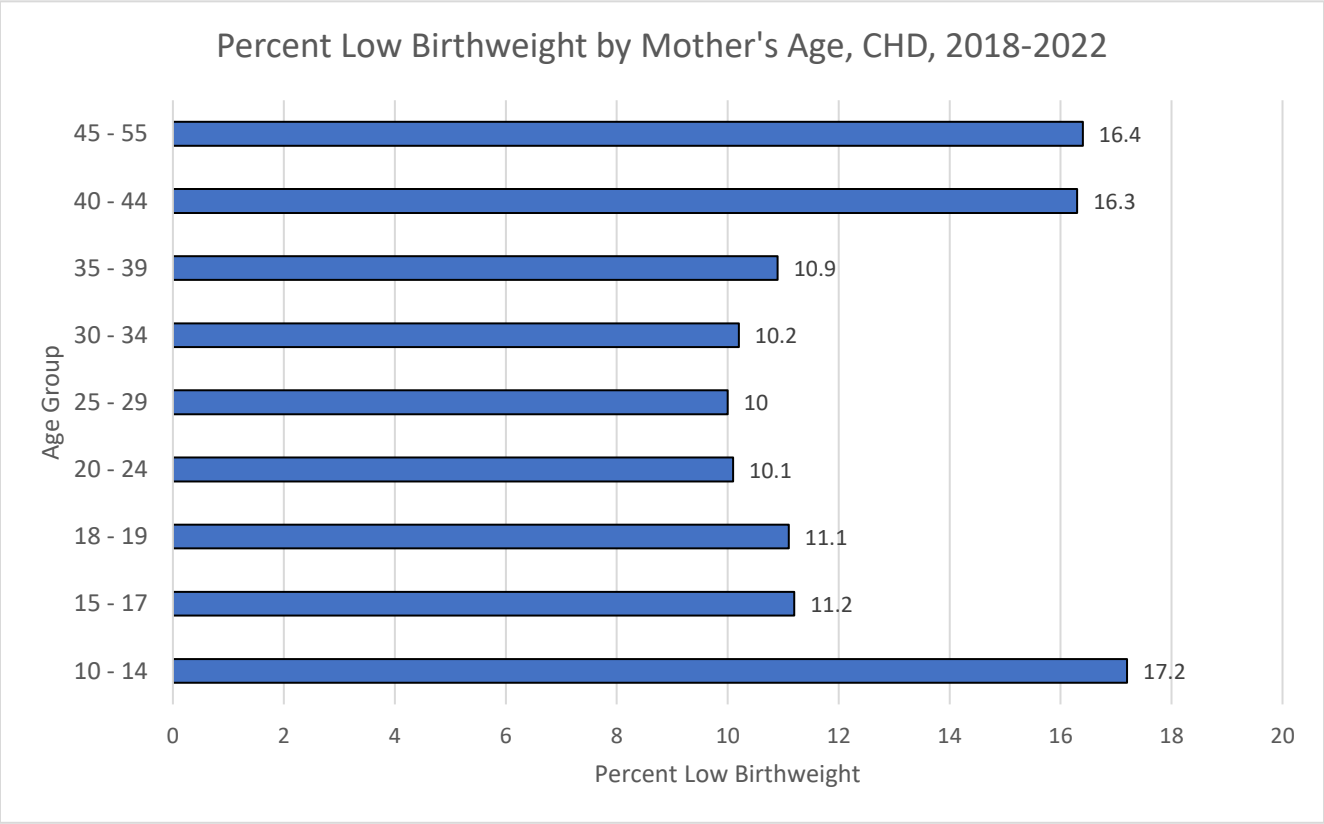
Source: OASIS

Figure 163: Percent Low Birthweight by Mother's Ethnicity, CHD, 2018-2022



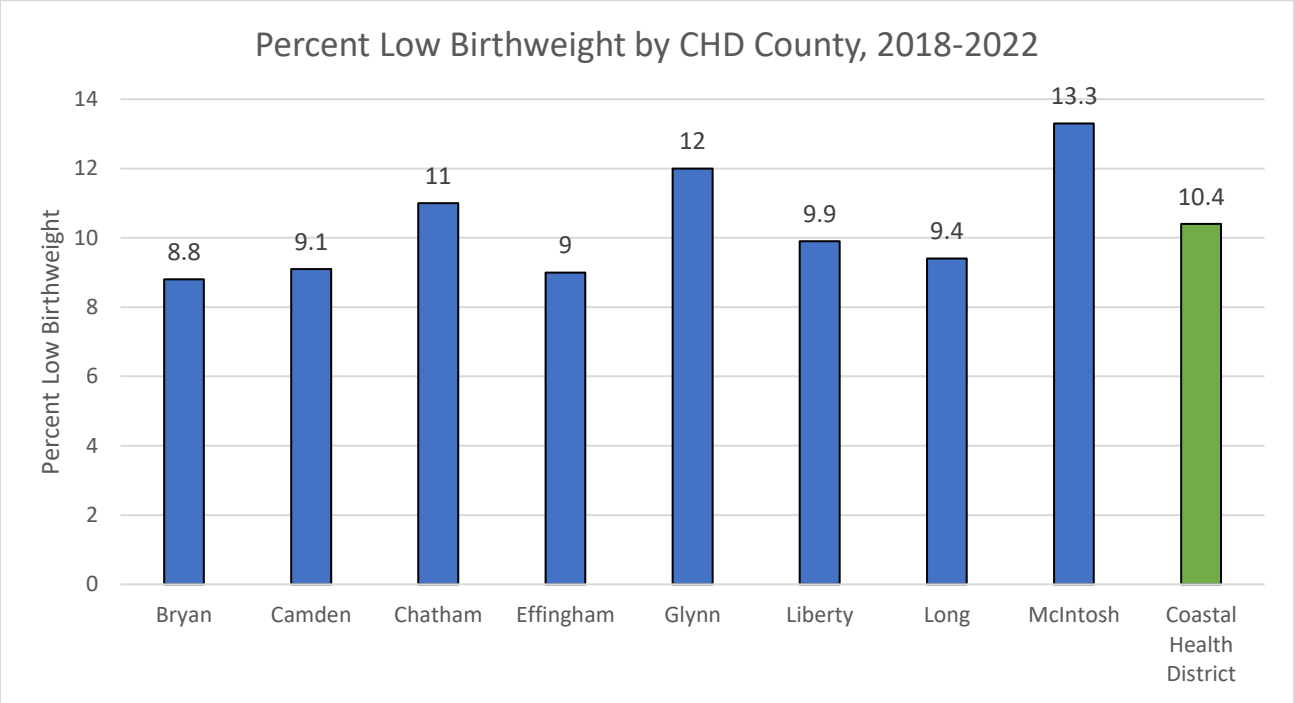
Source: OASIS

Figure 164: Percent Low Birthweight by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 165: Percent Low Birthweight by CHD County, 2018-2022



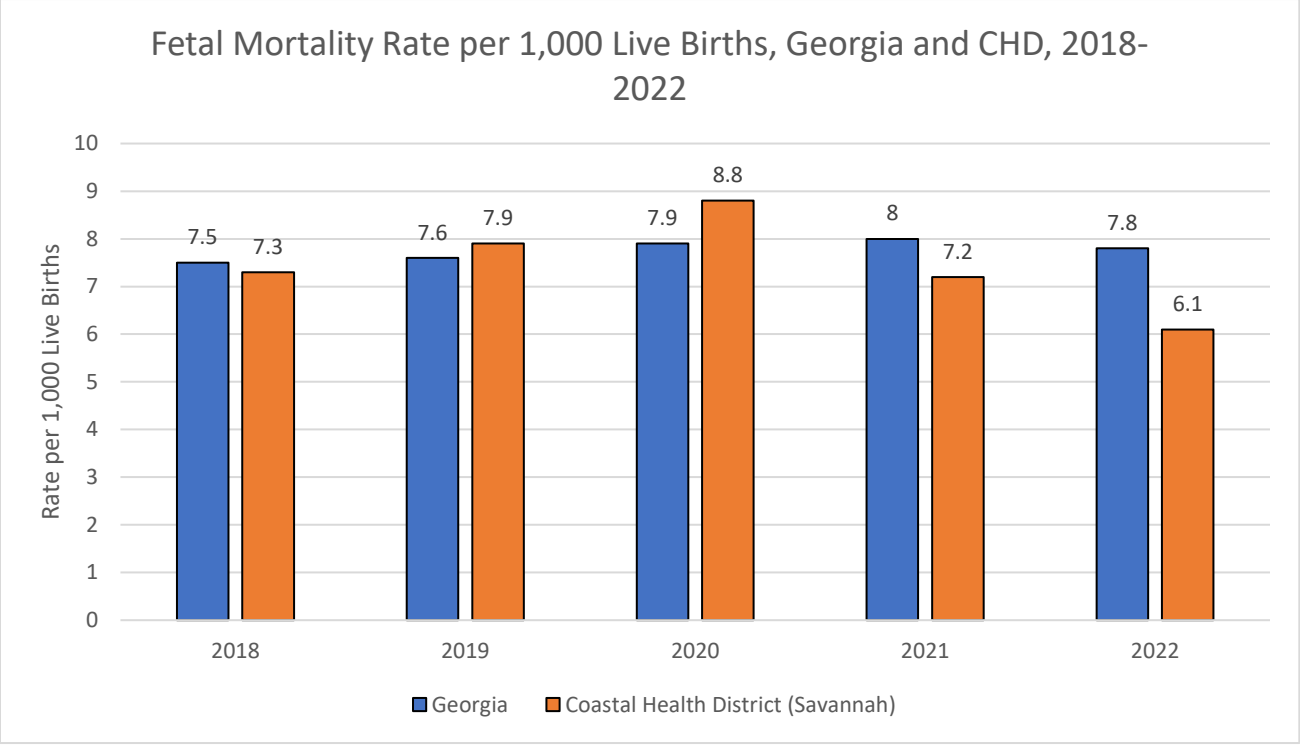
Source: OASIS

Fetal Mortality

Fetal mortality is defined as death before the complete expulsion from its mother of a product of human conception, irrespective of the duration of pregnancy. The fetus does not breathe or show any other evidence of life, such as the beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. In this context, a fetal death is considered 20 weeks or higher gestation.

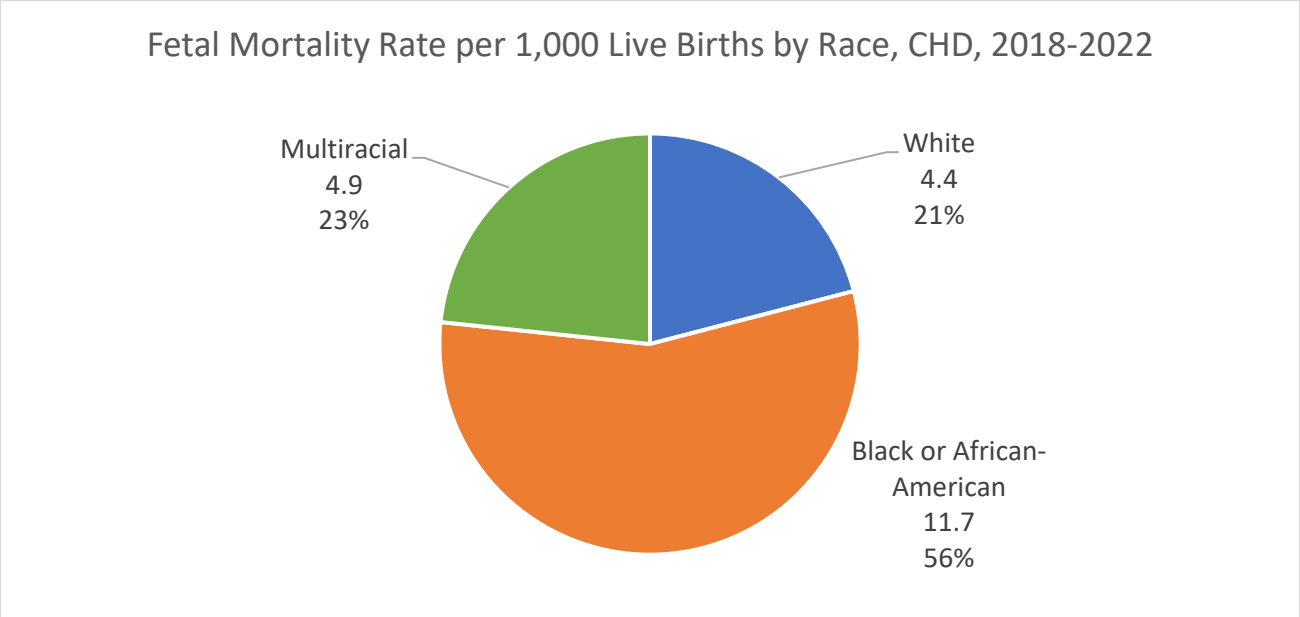
The fetal mortality rate for the Coastal Health District surpassed Georgia's rate in 2019, reaching a peak of 8.8 in 2020. However, in 2022, the rate was the lowest in the past five years, at 6.1, much lower than Georgia's 7.8. The fetal mortality rate is disproportionately higher for black or African Americans than any other race for the total years 2018-2022. Non-Hispanic mothers had a higher fetal mortality rate in the Coastal Health District compared to Hispanic mothers. The two age groups that have the highest fetal mortality rates are mothers between 40 and 44 years and mothers between 15 and 17 years. Asian, American Indian or Alaskan Native, and Native Hawaiian or Pacific Islander do not have fetal mortality rates due to data suppression, as well as age groups between 10-14 years and 45-55 years. Excluded from this section is a 2019 data reporting anomaly of 1,000 fetal mortalities in the unknown race category. Glynn County had the highest fetal mortality rate and McIntosh County had the lowest fetal mortality rate. McIntosh County only had fetal mortalities in 2020 and 2021, however, the data was suppressed due to numbers being too low. The rates pertain to residence and not place of occurrence.

Figure 166: Fetal Mortality Rate per 1,000 Live Births, Georgia and CHD, 2018-2022



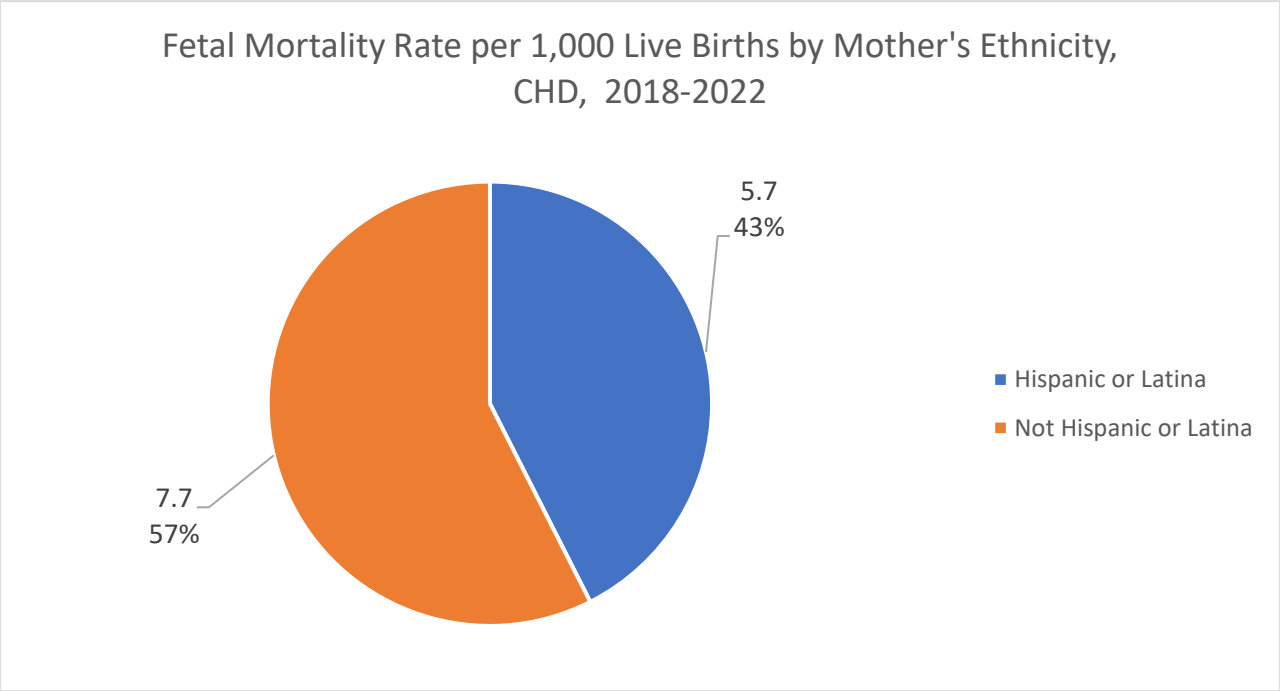
Source: OASIS

Figure 167: Fetal Mortality Rate per 1,000 Live Births by Race, CHD, 2018-2022



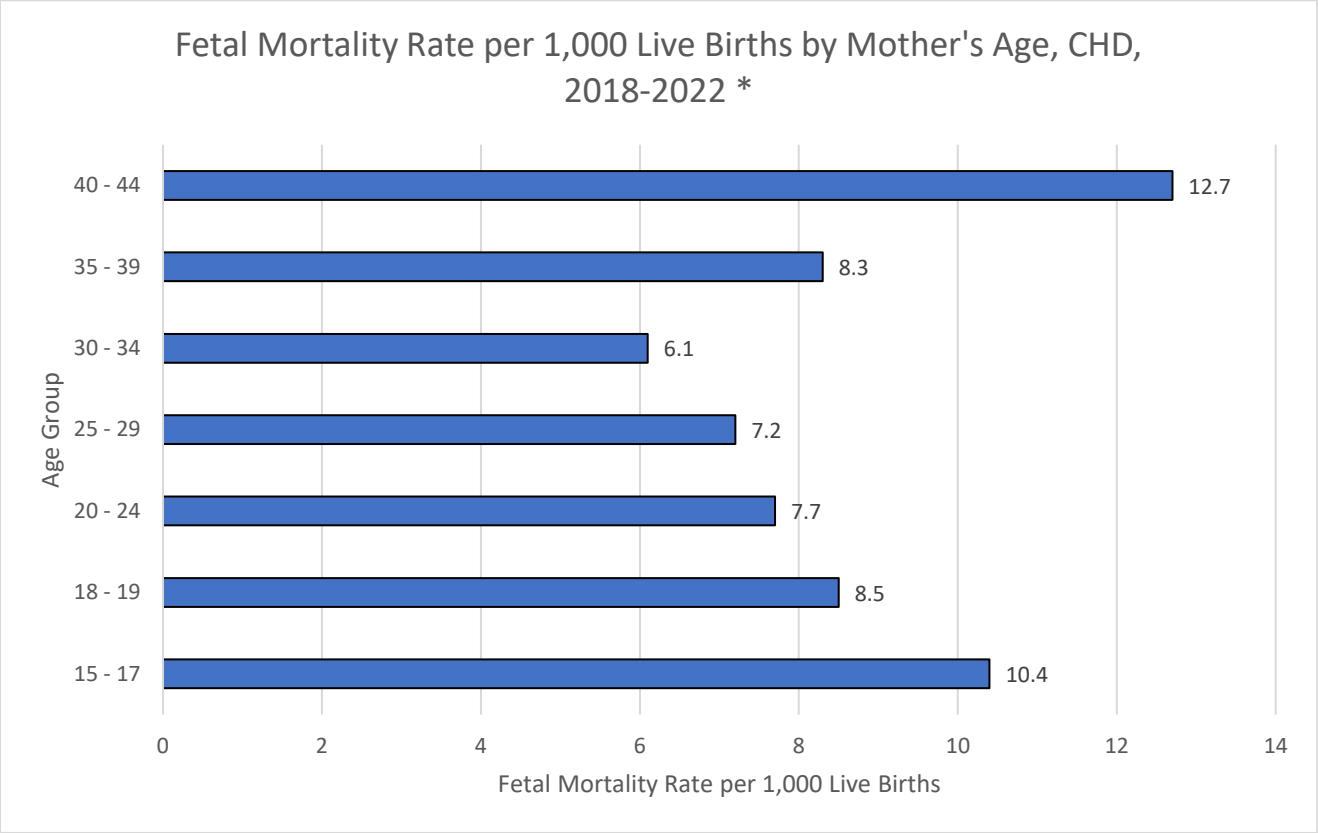
Source: OASIS

Figure 168: Fetal Mortality Rate per 1,000 Live Births by Mother's Ethnicity, CHD, 2018-2022



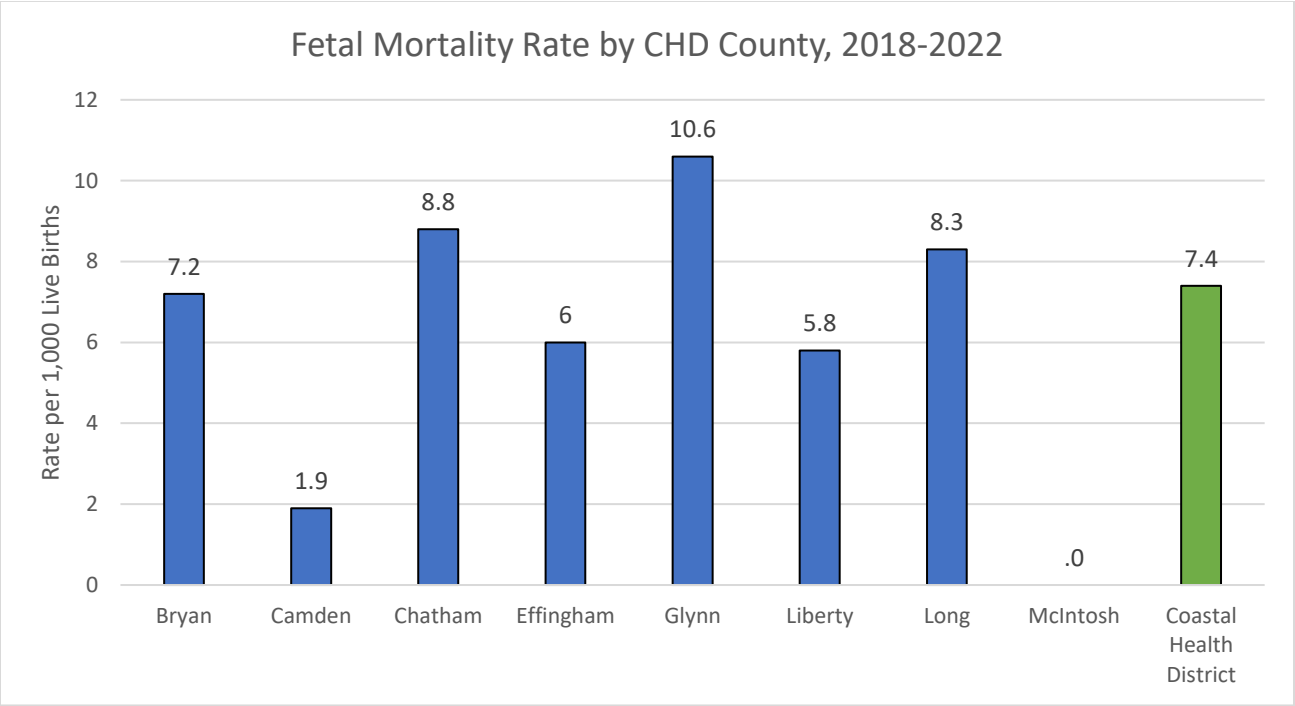
Source: OASIS

Figure 169: Fetal Mortality Rate per 1,000 Live Births by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 170: Fetal Mortality Rate by CHD County, 2018-2022

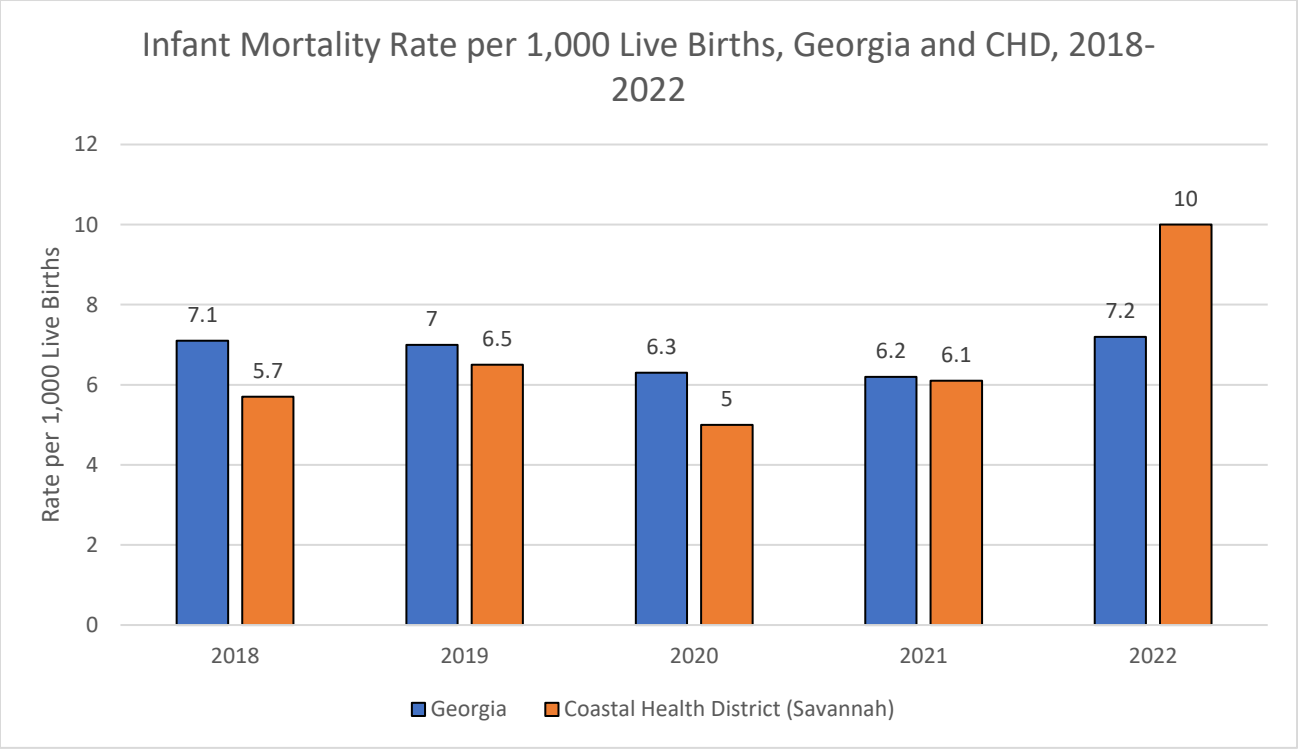


Source: OASIS

Infant Mortality

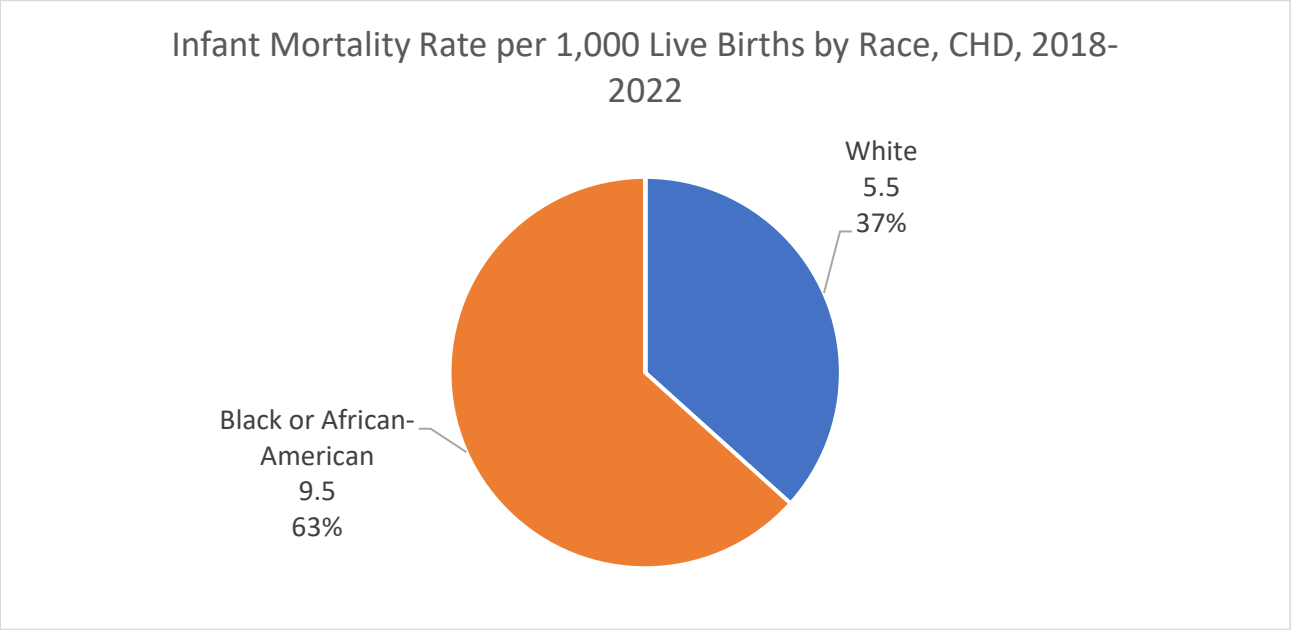
The death of a baby before their first birthday is called infant mortality. The infant mortality rate is the number of infant deaths that occur for every 1,000 live births. As of 2022, the United States ranked 6th among OECD countries with the highest infant mortality rates (5.4 per 1,000 live births) [54]. Causes of infant mortality in the United States include birth defects, preterm birth and low birth weight, maternal complications of pregnancy, sudden infant death syndrome (SIDS), and injuries. Significant racial and ethnic disparities exist among birth outcomes for pregnant women and infants. Non-Hispanic and black or African-American infants have significantly higher rates of mortality. Asian and Multiracial do not have infant mortality rates due to data suppression. American Indian or Alaska Native and Native Hawaiian or Other Pacific Islanders had infant mortality rates of zero for the reported period. The infant mortality rate is higher for non-Hispanic mothers compared to Hispanic mothers. Effingham County had the highest infant mortality rate and McIntosh County had the lowest infant mortality rate. McIntosh County only had infant mortalities in 2018 and 2022, however, the data was suppressed due to numbers being too low.

Figure 171: Infant Mortality Rate per 1,000 Live Births, Georgia and CHD, 2018-2022



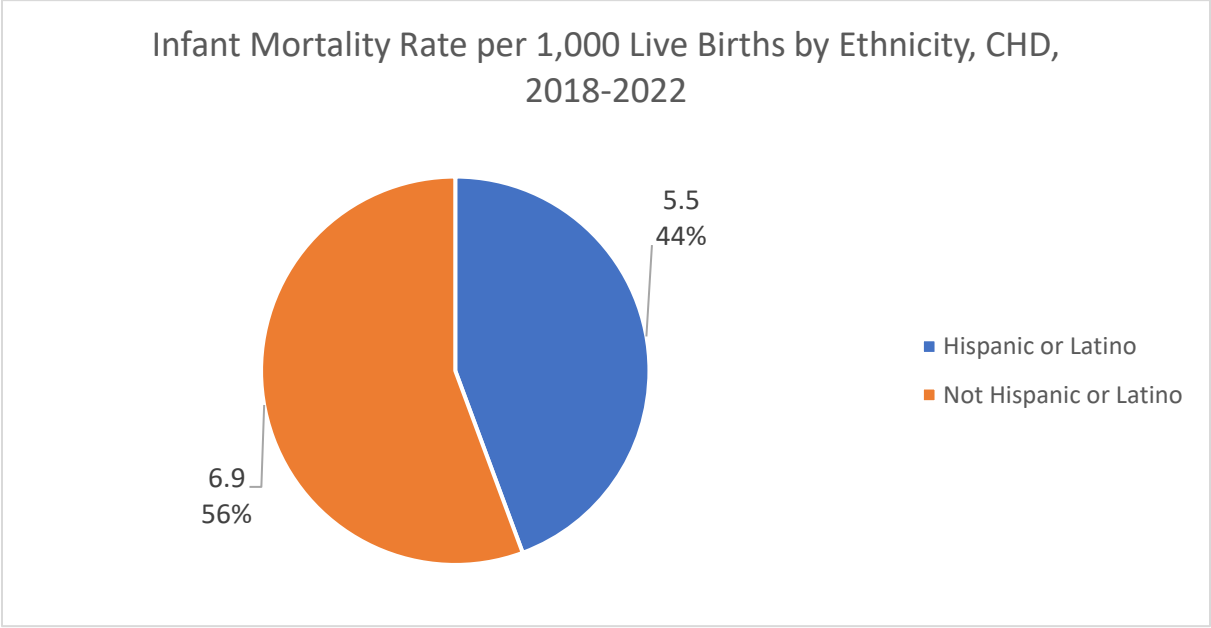
Source: OASIS

Figure 172: Infant Mortality Rate per 1,000 Live Births by Race, CHD, Total 2018-2022



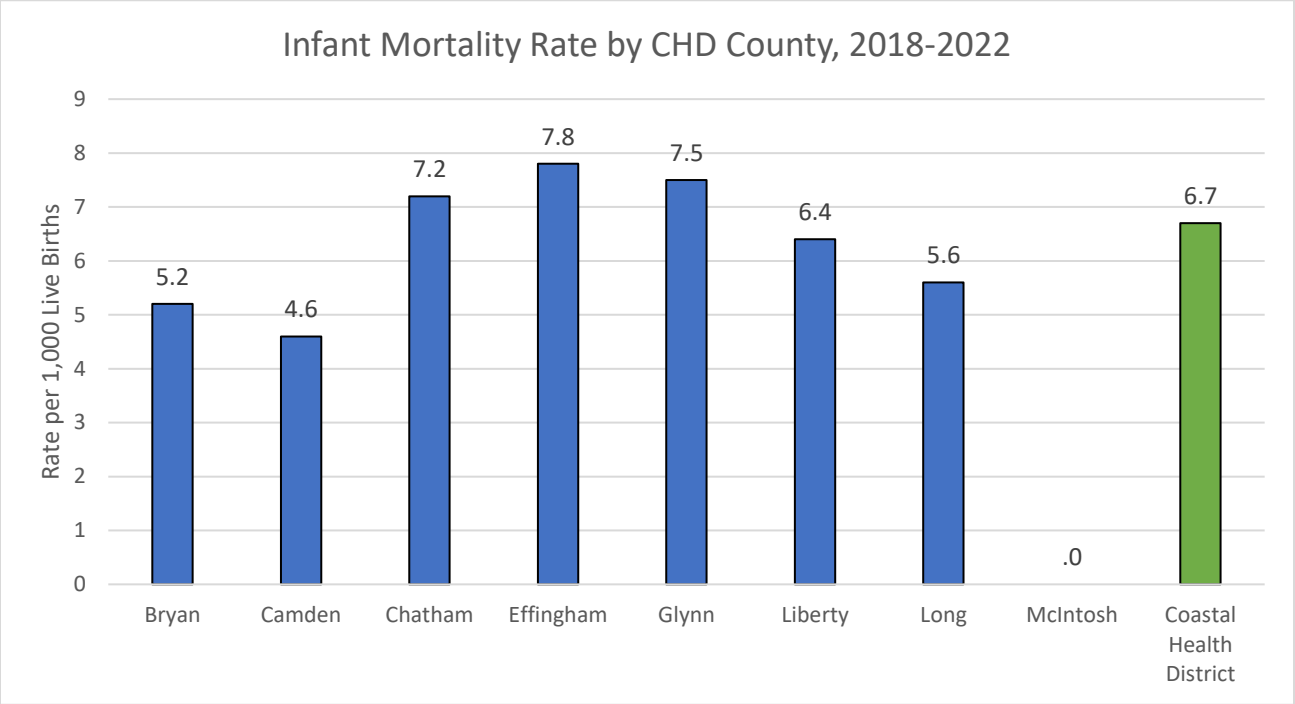
Source: OASIS

Figure 173: Infant Mortality Rate per 1,000 Live Births by Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 174: Infant Mortality Rate by CHD County, 2018-2022



Source: OASIS

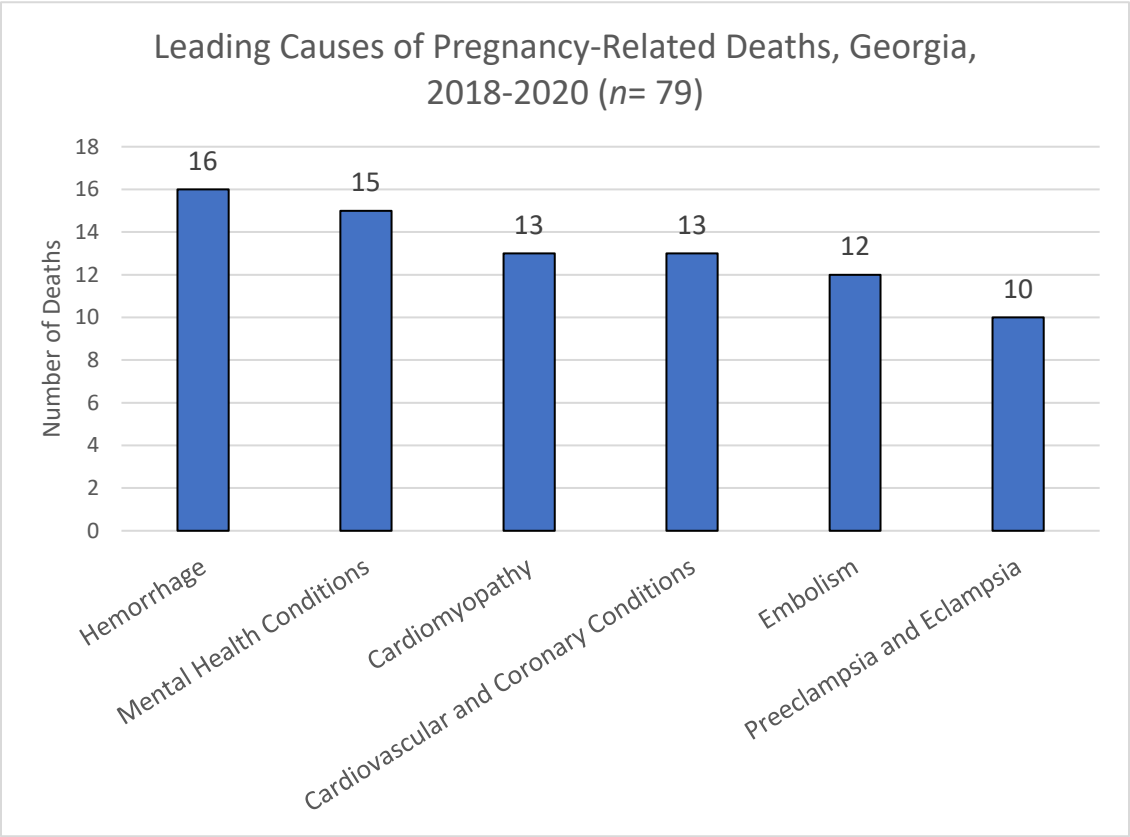
Maternal Mortality

Maternal mortality is a crucial factor when considering the health of a country. Maternal mortality can indicate systemic challenges facing a nation, for example, poor health care quality or inequalities in access to reproductive care. This section uses the most recent compiled maternal mortality review for Georgia, which is for the years 2018-2020.

A pregnancy-related death is defined as a death during pregnancy within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by the pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy. Between 2018 and 2020, 70% of the leading causes of pregnancy-related deaths in Georgia were due to one of six causes: hemorrhage, mental health conditions, cardiomyopathy, cardiovascular and coronary conditions, embolism, or preeclampsia and eclampsia [55]. The other 30% were due to seizure disorders, metabolic/ endocrine conditions, anesthesia complications, blood disorders, cerebrovascular accidents, homicide, infection, malignancies, renal disease, unintentional injury, and unknown cause of death.

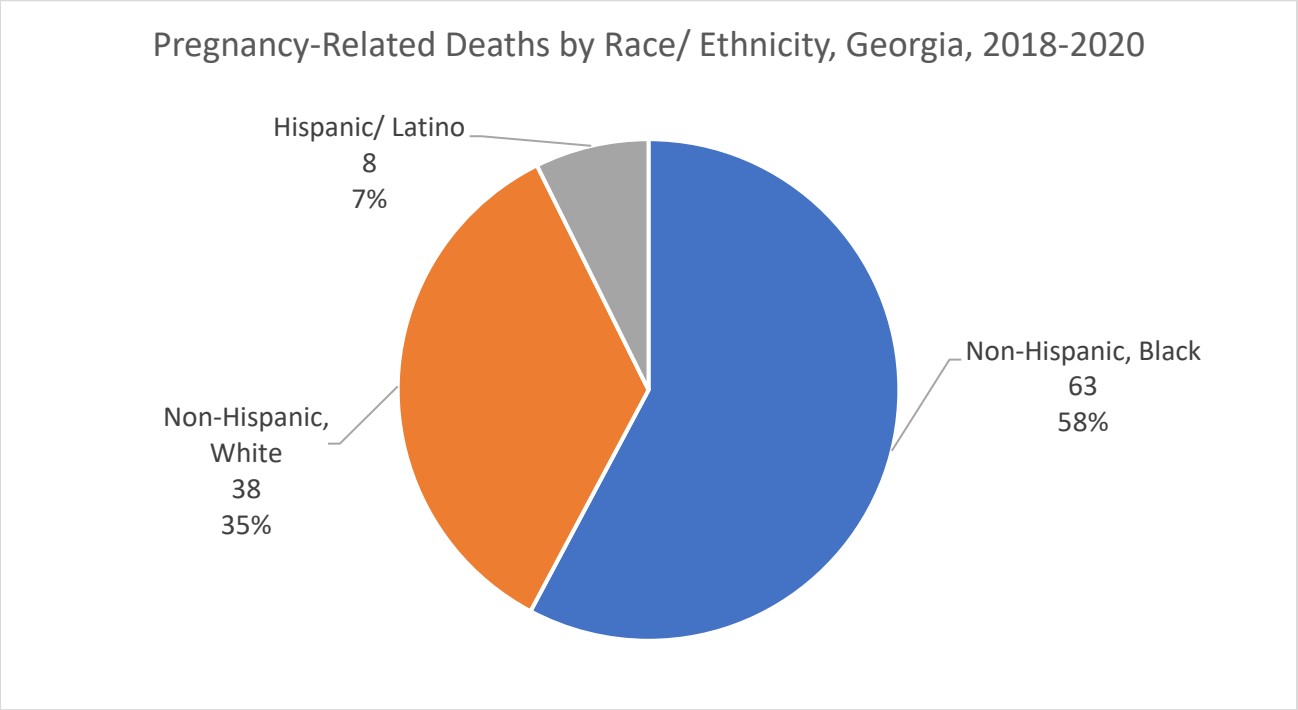
In Georgia, pregnancy-related deaths are disproportionately higher among non-Hispanic, black women compared to non-Hispanic, white women. Hispanic/ Latino women had the lowest reported pregnancy-related deaths. The maternal mortality rate for the Coastal Health District was 24.1 deaths per 100,000 live births.

Figure 175: Leading Causes of Pregnancy-Related Deaths, Georgia, 2018-2020



Source: DPH Maternal Mortality Review

Figure 176: Pregnancy-Related Deaths by Race/ Ethnicity, Georgia, 2018-2020



Source: DPH Maternal Mortality Review

Figure 177: Pregnancy-Related Deaths, Number + Ratio, CHD, 2018-2020

Coastal Health District	*Frequency*	*Births*	*Ratio*
	6	24,857	24.1

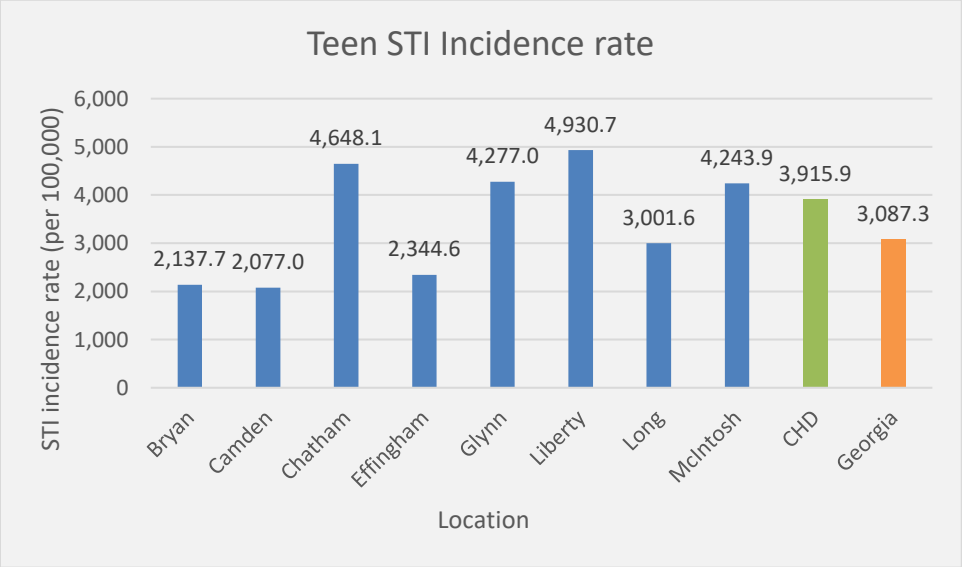
Source: DPH Maternal Mortality Review

Teenage Reproductive Health

Teenage STI Incidence Rates

Teenage STI (Sexually Transmitted Infections) incidence rate is defined as new cases of diagnosed STIs per 100,000 teenagers (ages 15-19). Of note, an individual can be counted more than once if they contracted more than one STI at one or more times during the time period. CHD's teenage STI rate of 3915.9 per 100,000 is significantly higher than Georgia's rate of 3,087.3 per 100,000. Of note, teenage STI rates vary greatly throughout the CHD counties, with 3 counties having STI rates near 2,000, while 4 counties have STI rates above 4,000.

Figure 178: Age-Adjusted Teenage STI Incidence Rates, ages 15-19, 2018-2022

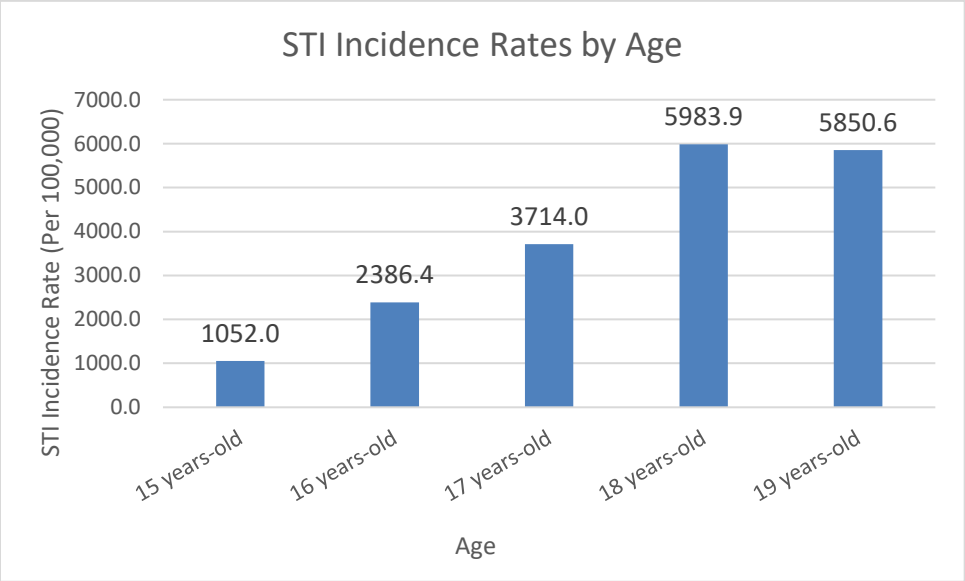


Source: OASIS

Teenage STI Incidence Rates: Demographics

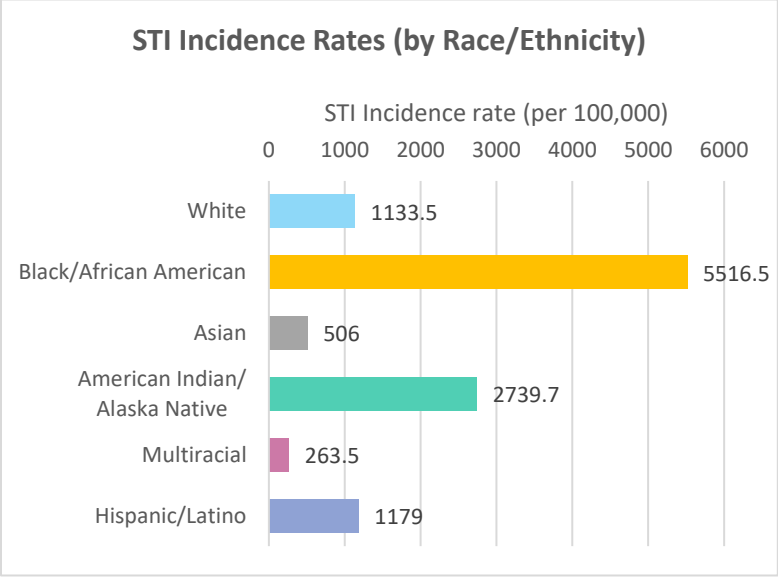
The figures below show CHD's teenage STI incidence rates (per 100,000) from 2018–2022 broken down by age, race/ethnicity, and sex. Teenage STI incidence rates are highest in the following subpopulations: 18-year-olds, Black/African Americans, and females.

Figure 179: Teenage STI Incidence Rates by Age, CHD, 2018-2022



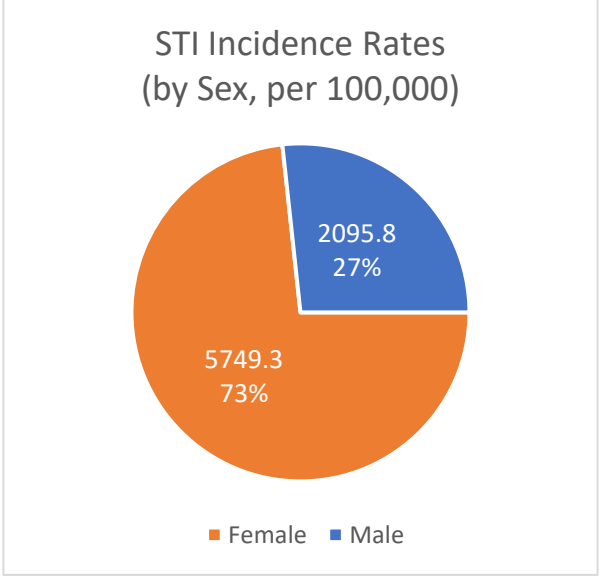
Source: OASIS

Figure 180: Age-Adjusted Teenage STI Incidence Rates by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 181: Age-Adjusted Teenage STI Incidence Rates by Sex, CHD, 2018-2022

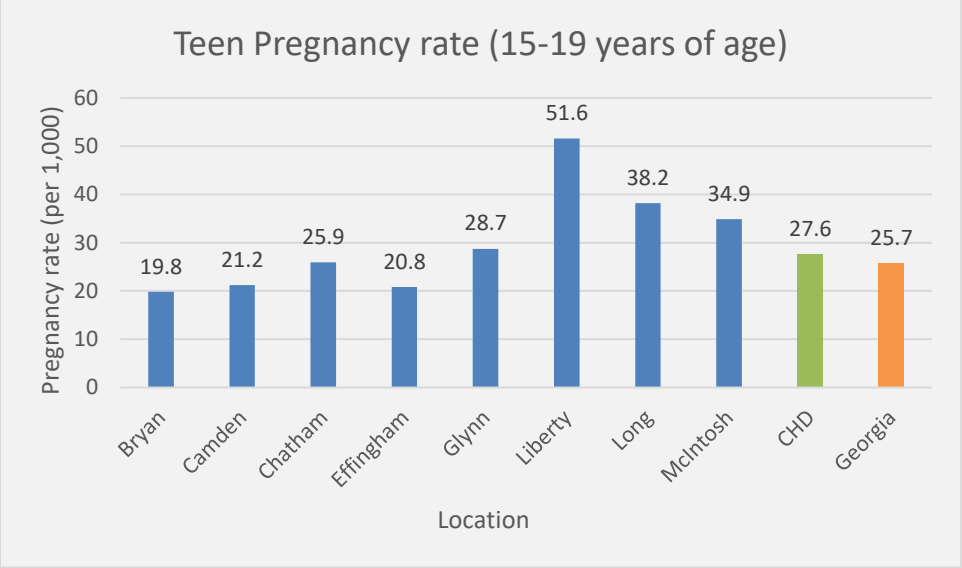


Source: OASIS

Teenage Pregnancy Rates

Teenage pregnancy rate is defined as pregnancies per 1,000 females ages 15-19. CHD's teenage pregnancy rate of 27.6 per 1,000 is slightly higher than Georgia's rate of 25.7 per 1,000. Of note, Liberty County's teen pregnancy rate of 51.6 per 1,000, making it nearly double both CHD and Georgia's rates.

Figure 182: Age-Adjusted Teenage Pregnancy Rates, by County, 2018-2022

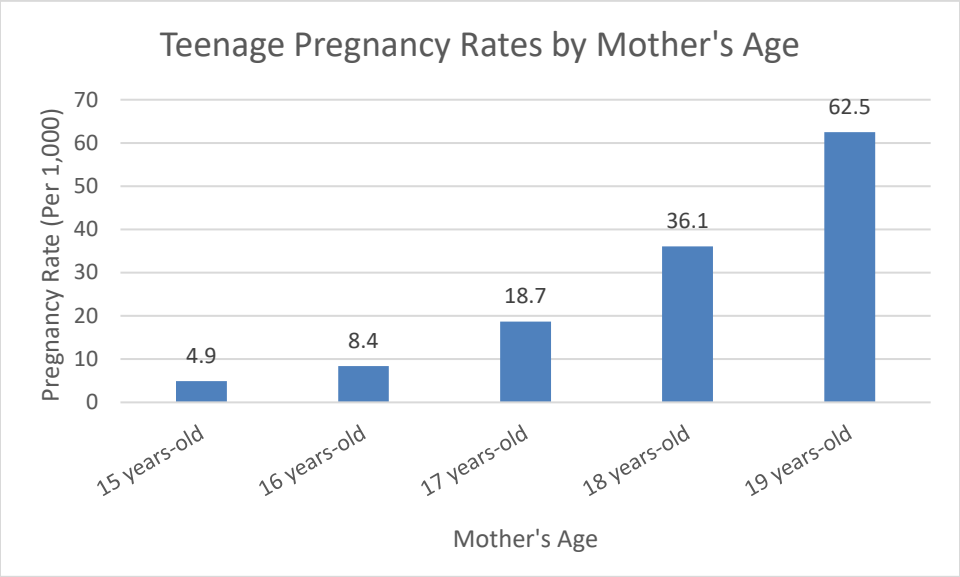


Source: OASIS

Teenage Pregnancy Rates: Demographics

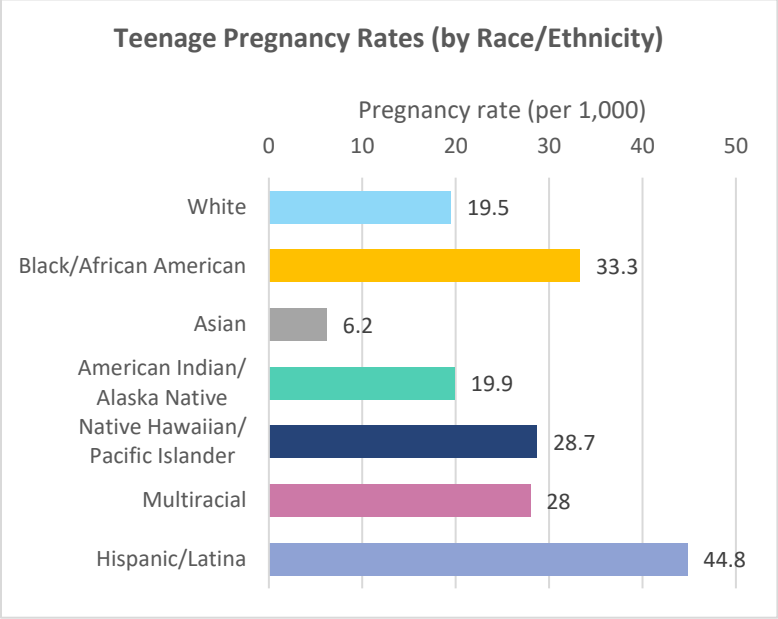
The figures below show CHD teenage pregnancy rates (per 1,000) from 2018–2022 broken down by mothers' age and race. Teenage pregnancy rates are highest in the following subpopulations: 19-year-olds and Hispanics/Latinas.

Figure 183: Teenage Pregnancy Rates by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 184: Age-Adjusted Teenage Pregnancy Rates by Race/Ethnicity, CHD, 2018-2022

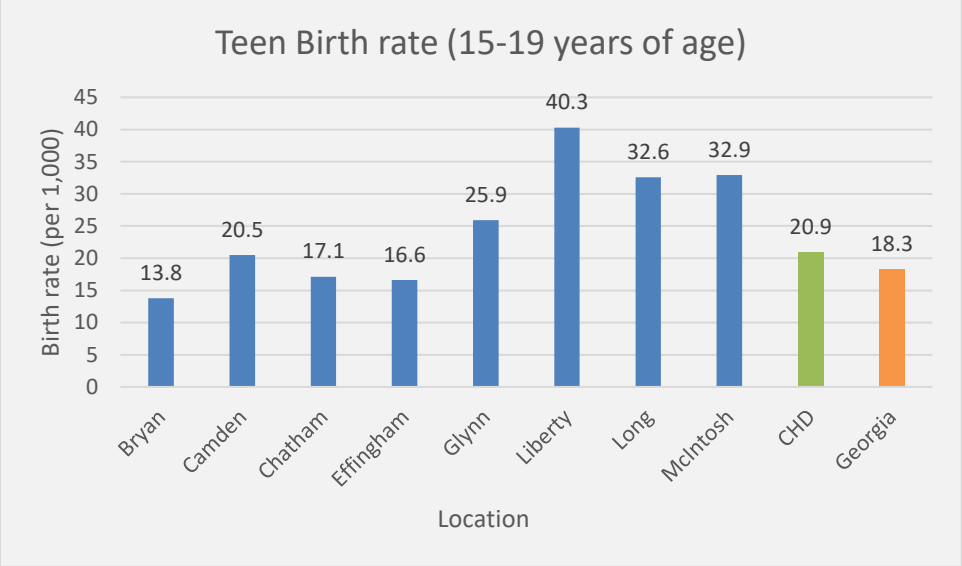


Source: OASIS

Teenage Birth Rates

Teenage birth rate is defined as live births per 1,000 females aged 15-19. CHD's teenage pregnancy rate of 20.9 per 1,000 is slightly higher than Georgia's rate of 18.3 per 1,000. Consistent with teenage pregnancy rates, Liberty County's teen birth rate of 40.3 per 1,000 is slightly more than double both CHD and Georgia's rates.

Figure 185: Age-Adjusted Teenage Birth Rates, by County, 2018-2022

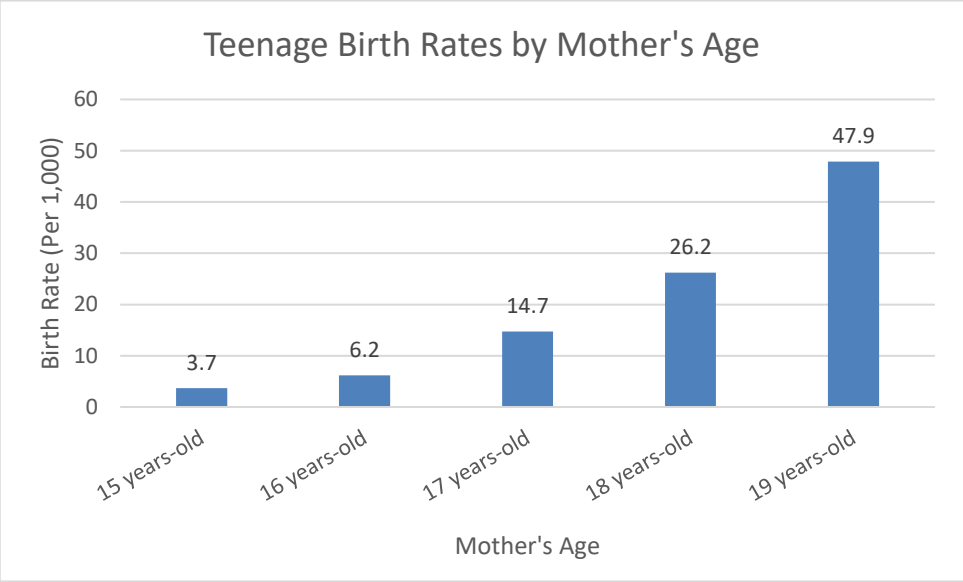


Source: OASIS

Teenage Birth Rates: Demographics

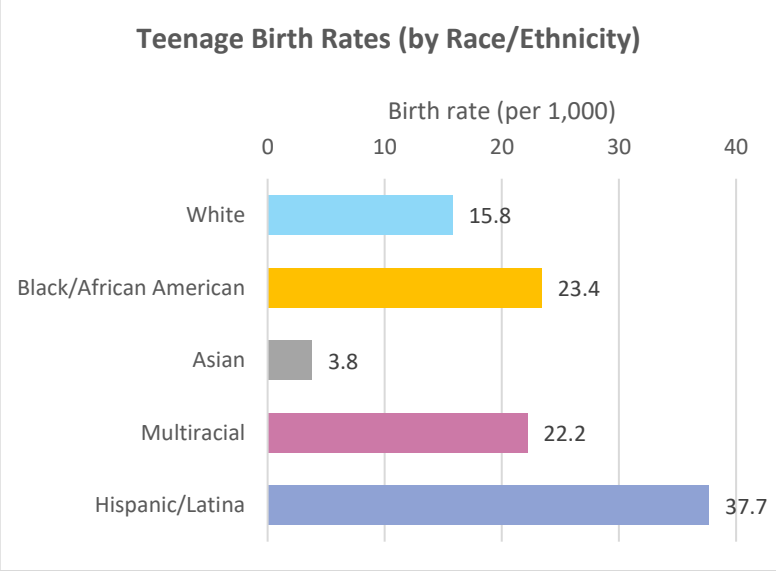
The figures below show CHD teenage birth rates (per 1,000) from 2018–2022 broken down by mothers' age and race. Due to data suppression, birth rates could not be presented for American Indians/Alaska Natives or Native Hawaiian/Pacific Islanders. Teenage birth rates are highest in the following subpopulations: 19-year-olds and Hispanics/Latinas.

Figure 186: Teenage Birth Rates by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 187: Age-Adjusted Teenage Birth Rates by Race/Ethnicity, CHD, 2018-2022

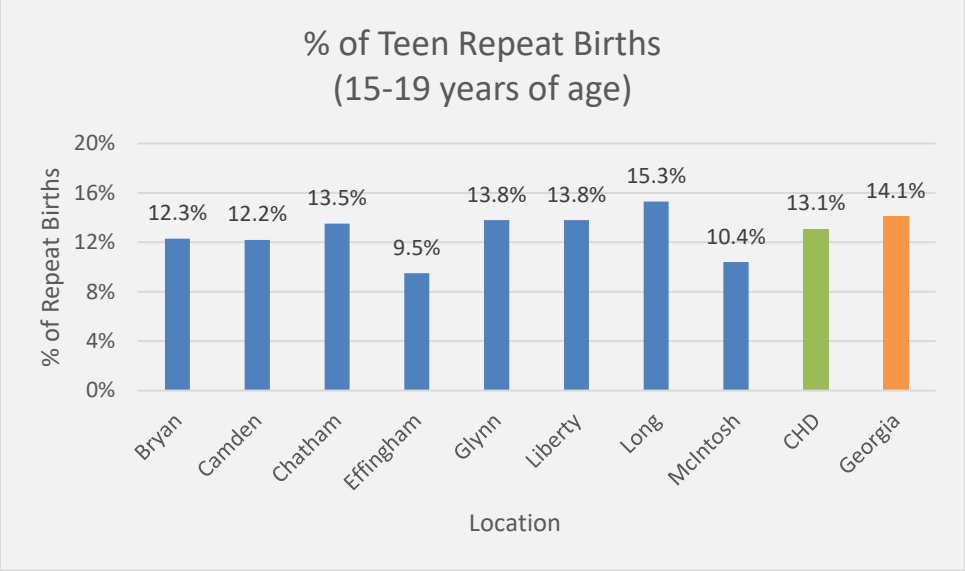


Source: OASIS

Teenage Repeat Birth Rates

For this indicator, teenage repeat births are defined as the percentage of children born to a teenage mother (15-19 years-old) who previously has given birth at least once before. At 13.1%, the CHD's percentage of teenagers who gave birth at least twice or more between 2018 – 2022 is lower than Georgia's 14.1%.

Figure 188: Age-Adjusted Teenage Repeat Births, by County, 2018-2022

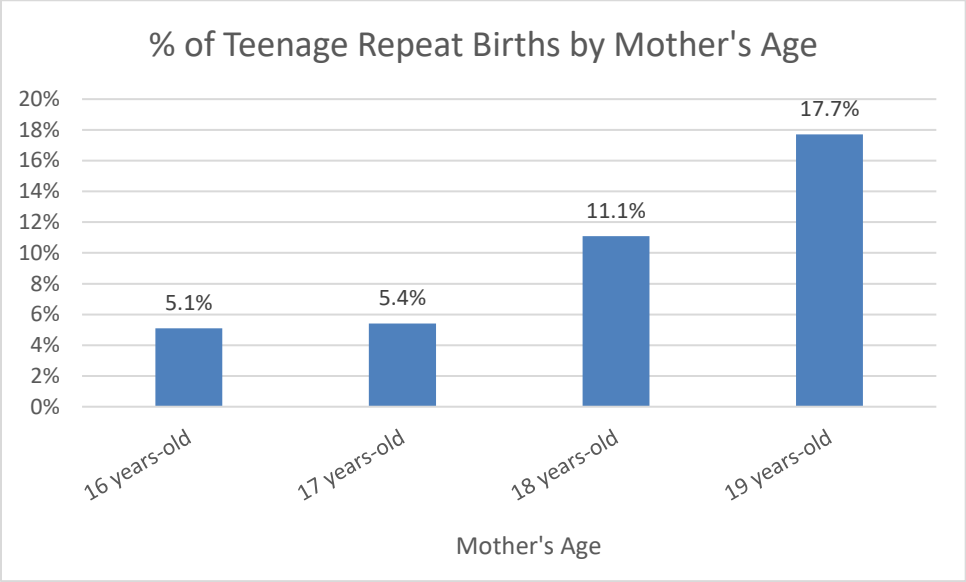


Source: OASIS

Teenage Repeat Births: Demographics

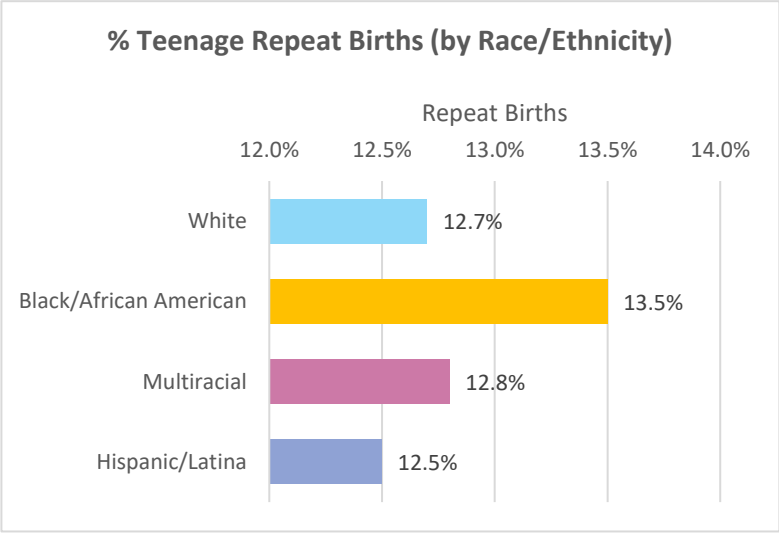
The figures below show CHD 2018–2022 percentage of teenage repeat birth rates from broken down by mothers' age and race. Due to data suppression, percentages could not be presented for 15-year-olds, Asians, or American Indians/Alaska Natives. Rates for Native Hawaiian/Pacific Islanders was 0.0 and thus was not included in the graph. Teenage repeat birth rates are highest in the following subpopulations: 19-year-olds and Black/African Americans.

Figure 189: Teenage Repeat Birth Rates by Mothers' Age, CHD, 2018-2022



Source: OASIS

Figure 190: Age-Adjusted Teenage Repeat Birth Rates by Race/Ethnicity, CHD, 2018-2022

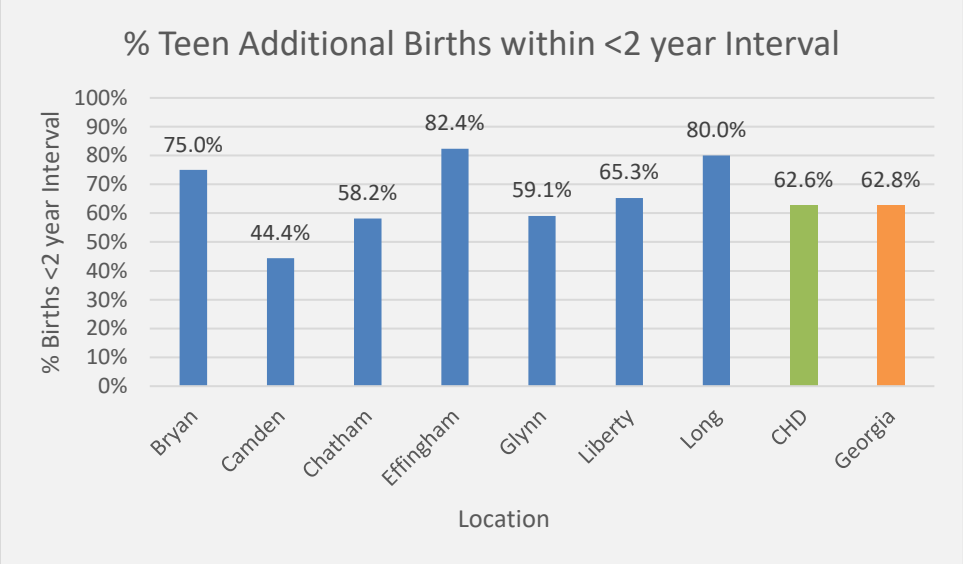


Source: OASIS

Teenage Additional Births within <2-year Interval

This indicator is defined as the percentage of teenage (15-19 years old) mothers who gave birth twice within a 2-year timespan. The CHD's percentage of births with <2-year interval is almost identical to Georgia at 62.6% and 62.8%, respectively. Due to data suppression, McIntosh County could not be included in the graph.

Figure 191: Age-Adjusted Teenage Additional Birth within <2-year Interval Rates, by County, 2018-2022

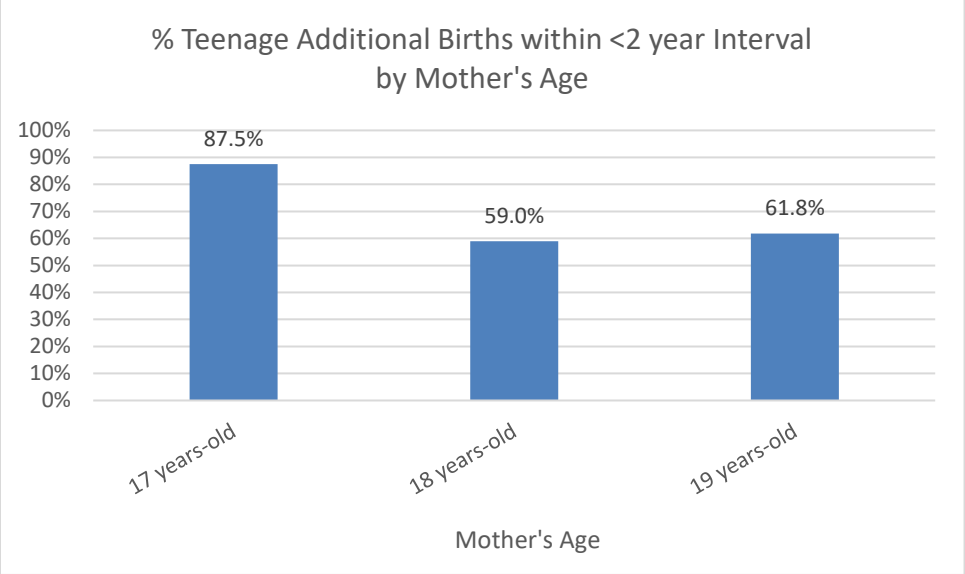


Source: OASIS

Teenage Additional Births within <2-year Interval: Demographics

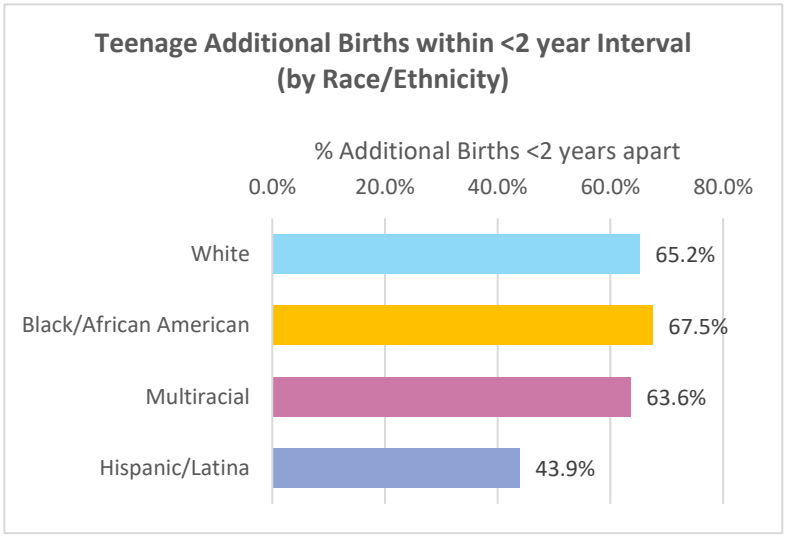
The figures below show the CHD's 2018–2022 percentage of teenage additional births within less than two years broken down by mothers' age and race. Due to data suppression, percentages could not be presented for 15-year-olds, 16-year-olds, or American Indians/Alaska Natives. Percentages for Asians and Native Hawaiian/Pacific Islanders were 0.0 and thus were not included in the graph. Teenage pregnancy rates are highest in the following subpopulations: 17-year-olds and Black/African Americans.

Figure 192: Teenage Additional Births within <2-year Interval by Mother's Age



Source: OASIS

Figure 193: Age-Adjusted Teenage Additional Births within <2-year Interval by Race/Ethnicity, CHD, 2018-2022

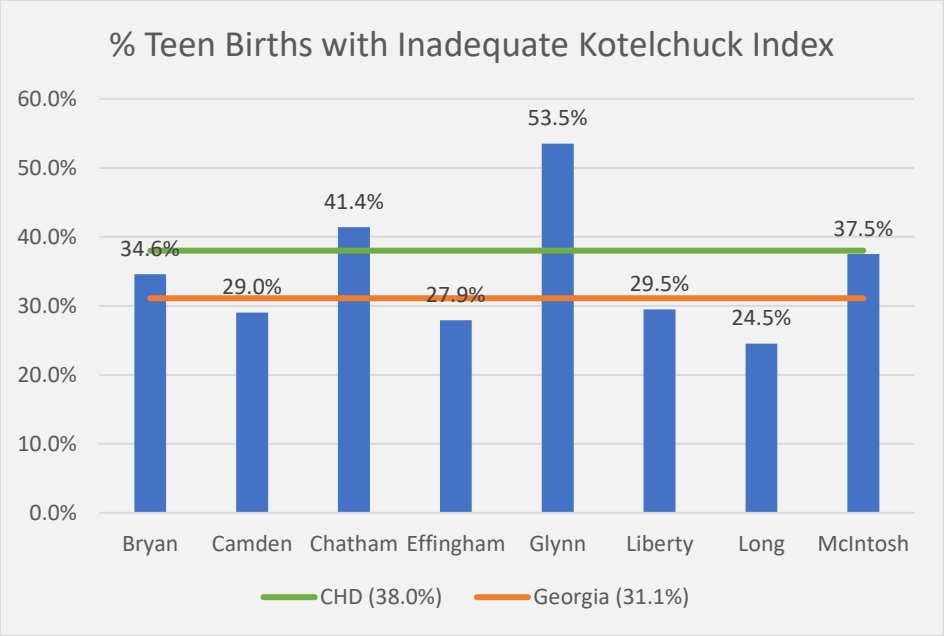


Source: OASIS

Teenage Prenatal Care: Inadequate Kotelchuck Index

Prenatal care is health care received during pregnancy. Using the Kotelchuck Index, inadequate care is defined as receiving less than 50% of the expected prenatal visits starting from when care began until the delivery date [56] [57]. An average of 21.0% of teenage mothers (more than 1 out of 5) in the CHD had inadequate prenatal care, compared to an average of 17.0% of teenage mothers across Georgia. Of note, Glynn (27.1%), Camden (25.3%), and McIntosh (24.5%) Counties all had significantly higher percentages of inadequate prenatal care among teenage mothers.

Figure 194: Teen Births with Inadequate Kotelchuck Index (Inadequate Prenatal Care), by County, 2018-2022

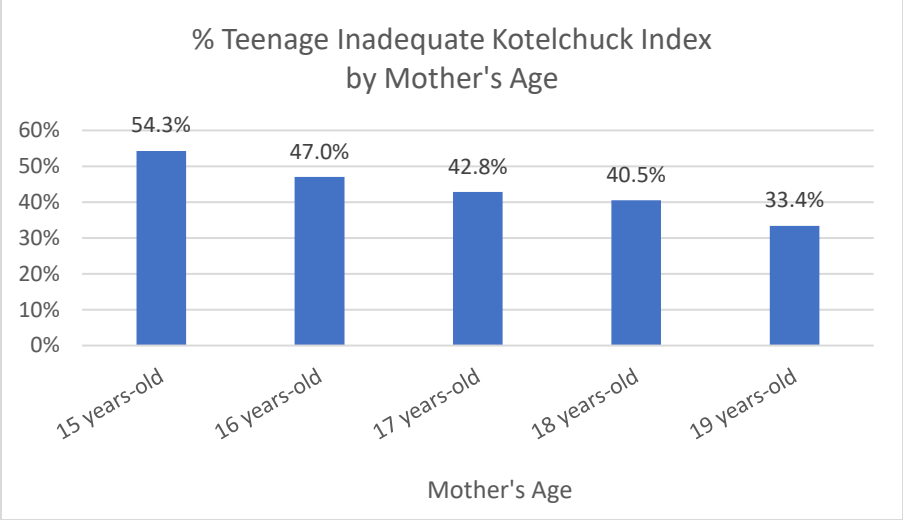


Source: OASIS

Teenage Inadequate Kotelchuck Index: Demographics

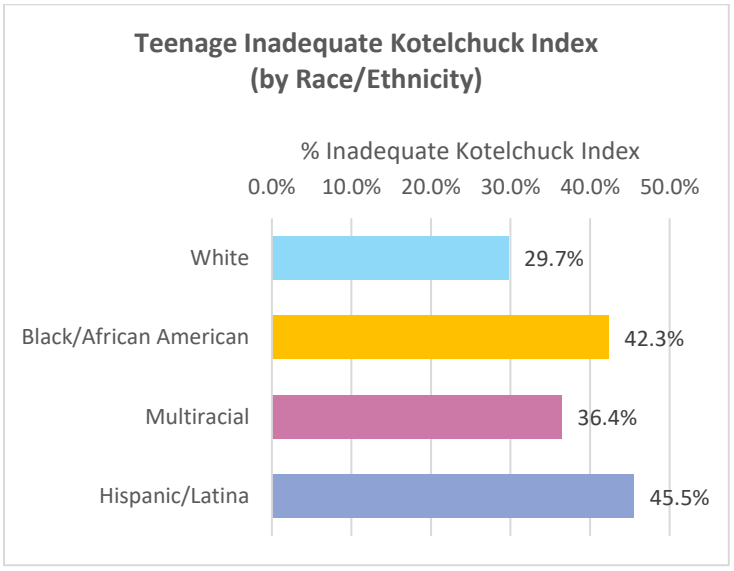
The figures below show the percentage of teens with inadequate prenatal care in the CHD from 2018–2022 broken down by mothers' age and race. Due to data suppression, data could not be presented for Multiracial individuals. Percentages for Asians, American Indians/Alaska Natives, and Native Hawaiian/Pacific Islanders were 0.0% and thus were also not included in the graph. Inadequate prenatal care for teenage mothers are highest in the following subpopulations: 15-year-olds and Black/African Americans.

Figure 195: Teenage Inadequate Kotelchuck Index by Mother's Age, CHD, 2018-2022



Source: OASIS

Figure 196: Age-Adjusted Teenage Inadequate Kotelchuck Index, by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

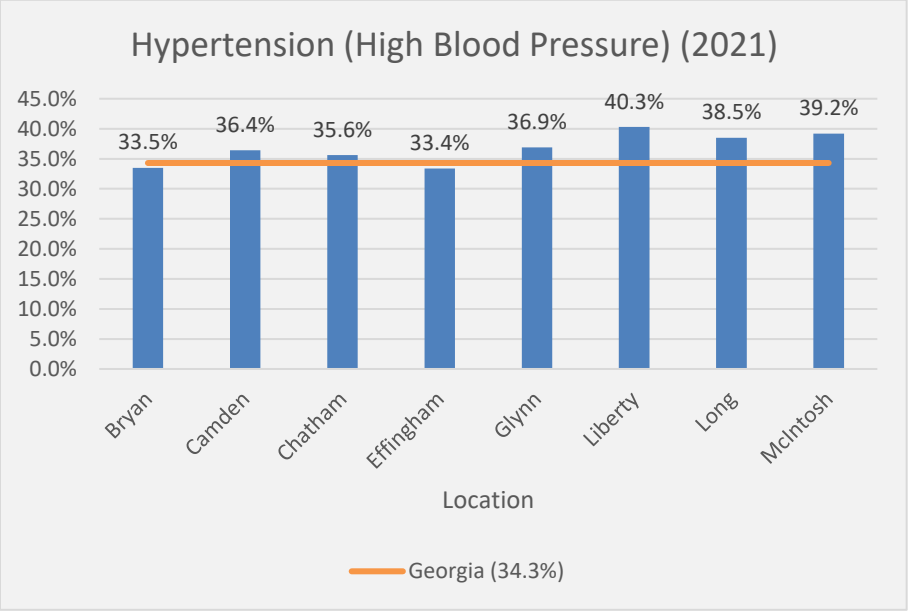
Health Outcomes

Chronic Diseases: Risk Factors

High Blood Pressure (Hypertension)

High blood pressure, also known as Hypertension, is defined as having regular blood pressure readings above the normal levels of 120 systolic (upper number) and/or 80 diastolic (lower number) – written as 120/80 mmHg [58]. It increases the risk for numerous chronic diseases including heart disease, stroke, and/or heart attack [58] [41]. Due to changes in the diagnostic guidelines from 2003 (consistently 140/90 mm Hg or higher) to 2017 (consistently 130/80 mm Hg or higher), a diagnosis of high blood pressure can slightly vary from one medical professional to another [58]. Therefore, the data is simply the percentage of adults who reported being told by a health professional that they have high blood pressure [41]. All but 2 CHD counties (Bryan and Effingham) have adult (18+) high blood pressure percentages higher than Georgia's 34.3%.

Figure 197: Age-Adjusted Percentage of Adults with High Blood Pressure, aged 18 and older, by County, 2021

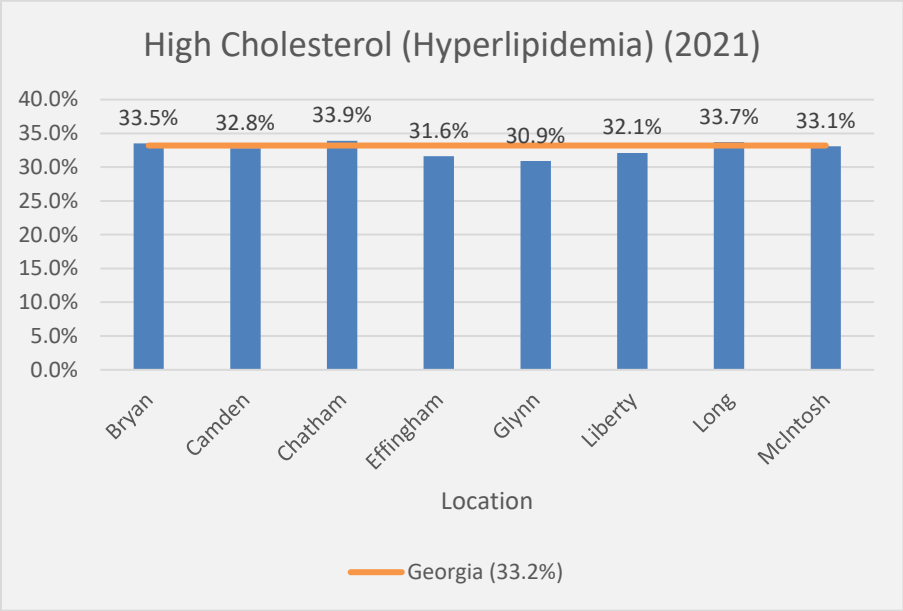


Source: CDC PLACES & BRFSS

High Cholesterol

High cholesterol, also known as hyperlipidemia, is defined as having a total (HDL+LDL+triglycerides) cholesterol above 200 mg/dL [59]. High cholesterol leads to the build-up of plaque in the arteries (atherosclerosis), leading to an increased risk for heart attacks, coronary heart disease, and strokes [41]. Bryan, Chatham, and Long Counties all have adult (18+) high cholesterol percentages greater than Georgia's 33.2%.

Figure 198: Age-Adjusted Percentage of Adults with High Cholesterol, aged 18 and older, by County, 2021

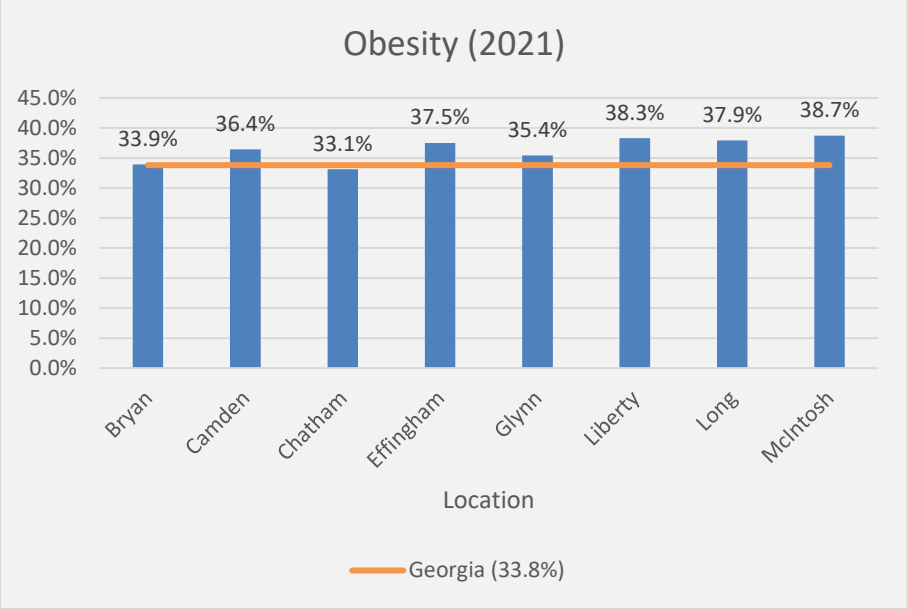


Source: CDC PLACES & BRFSS

Obesity

Obesity is defined as having an unhealthy weight at or above a BMI of 30 kg/m² [41]. It increases the risk for numerous chronic diseases, including heart disease, stroke, type 2 diabetes, and cancer [41]. Only Chatham County has a lower population percentage of adult (18+) obesity compared to Georgia's 33.8%.

Figure 199: Age-Adjusted Percentage of Population who are clinically Obese, aged 18 and older, by County, 2021

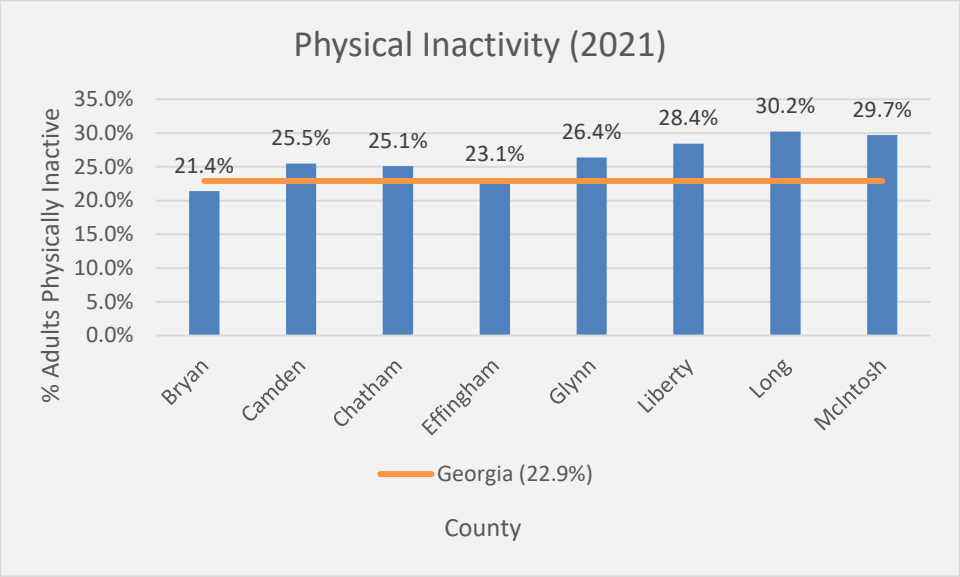


Source: CDC PLACES & BRFSS

Physical Inactivity

Physical inactivity is another significant contributor to obesity. Engaging in physical activity aerobic and muscle-strengthening exercises can help prevent disease, disability, injury, and premature death [60]. Physical inactivity is defined as adults 18 and older who reported no physical activity outside of work, with higher percentages being worse and indicating a less physically active community [60]. Seven out of eight CHD counties have higher percentages of physical inactivity than Georgia's 23.1%.

Figure 200: Age-Adjusted Percentage of Population who are Physically Inactive, aged 18 & older, by County, 2021

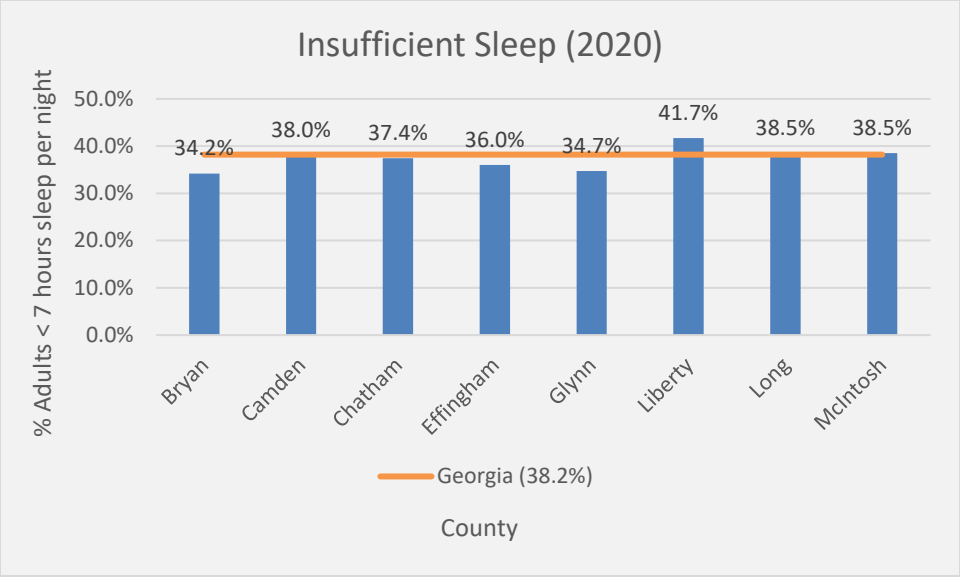


Source: CDC PLACES & BRFSS

Insufficient Sleep

Insufficient sleep is associated with several health problems, including diabetes, cardiovascular disease, hypertension, obesity, depression, and motor vehicle crashes [60]. Insufficient sleep is defined as adults 18 and older who reported getting less than 7 hours of sleep on average during a 24-hour period [60]. Only three out of eight CHD counties have a higher percentage of adults with insufficient sleep than Georgia's 38.2%.

Figure 201: Age-Adjusted Percentage of Population with Insufficient Sleep, aged 18 and older, by County, 2020



Source: CDC PLACES & BRFSS

Morbidity: Chronic Diseases

Chronic diseases are health conditions that last at least one year and require continuous medical attention and/or limit daily life activities [61]. Chronic diseases are associated with high morbidity, mortality, and health care costs. Some of the most common types of chronic diseases are cardiovascular disease, diabetes, and cancer. Certain risk behaviors significantly increase the likelihood of developing chronic diseases. These include, but are not limited to, poor nutrition, lack of physical activity, tobacco use and exposure, and excessive alcohol consumption [61]. Along with prevalence of chronic diseases, hospital discharge, and ER visit rates were also assessed to measure the impact of chronic diseases on the medical infrastructure and population as a whole.

Arthritis

Arthritis is a general term used to describe more than 100 rheumatic diseases and conditions that affect the joints, tissues surrounding the joints, and other connective tissue [62]. Osteoarthritis is the most common form of arthritis, usually affecting the hands, hips, and knees [63]. Other common forms include rheumatoid arthritis, gout, lupus, and fibromyalgia [63] [41].

The main symptoms caused by arthritis are usually joint pain and stiffness. Due to the effect on a person's mobility and overall function, arthritis is the top cause of work disability amongst adults in the United States [63]. Individuals with arthritis typically also suffer from frequent mental distress, poor physical health, and other chronic diseases, including diabetes, obesity, and heart disease [62] [63]. Reducing arthritis symptom severity is often associated with reduced pain; and improvements in psychological health, physical function, and overall quality of life [41].

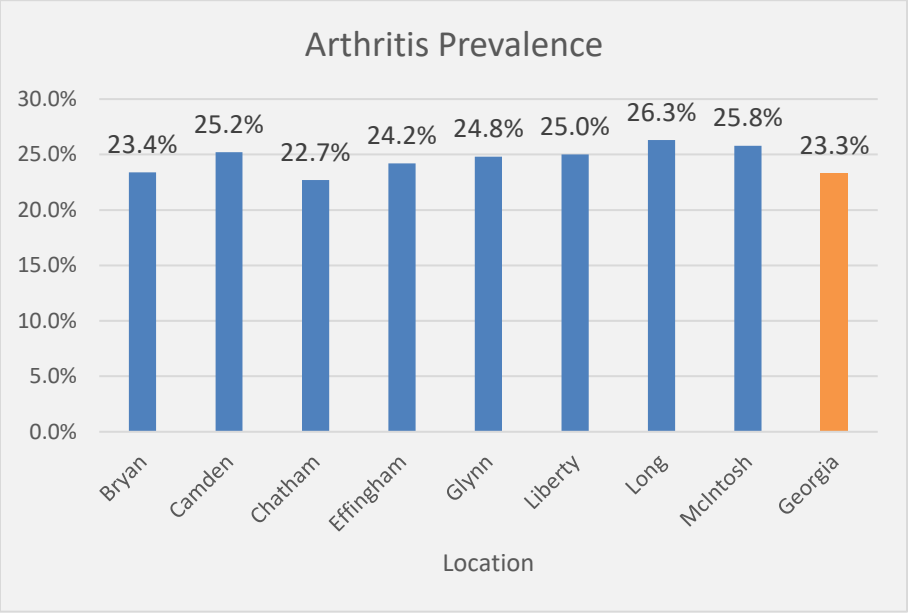
Non-modifiable risk factors (i.e., risk factors that cannot be changed or controlled) for arthritis include older age; gender, as most types of arthritis being more common in women, the exception being gout which is more common in men; and inherited HLA (human leukocyte antigen) class II genetic mutations [63]. Lifestyle risk factors for arthritis include being overweight/obese; bacterial or viral joint infections; joint injuries and/or overuse, including from occupations that "involve repetitive knee bending and squatting"; and cigarette smoking [63].

Ways to reduce the risk of developing arthritis are by maintaining a healthy weight; adhering to a healthy eating plan; maintaining regular physical activity to preventing injuries to the joints, especially the knees; ensuring that the workplace is free of fall hazards and tasks do not exceed personal physical limitations; and quitting smoking [63].

Arthritis: Prevalence

According to CDC PLACES, the estimated prevalence of arthritis among adults (18 and older) in the CHD counties ranged from 22.7% – 26.3% of the population, with all counties (excluding Chatham County) higher than Georgia's 23.3%.

Figure 202: Age-Adjusted Arthritis Prevalence, aged 18 and older, by County, 2021



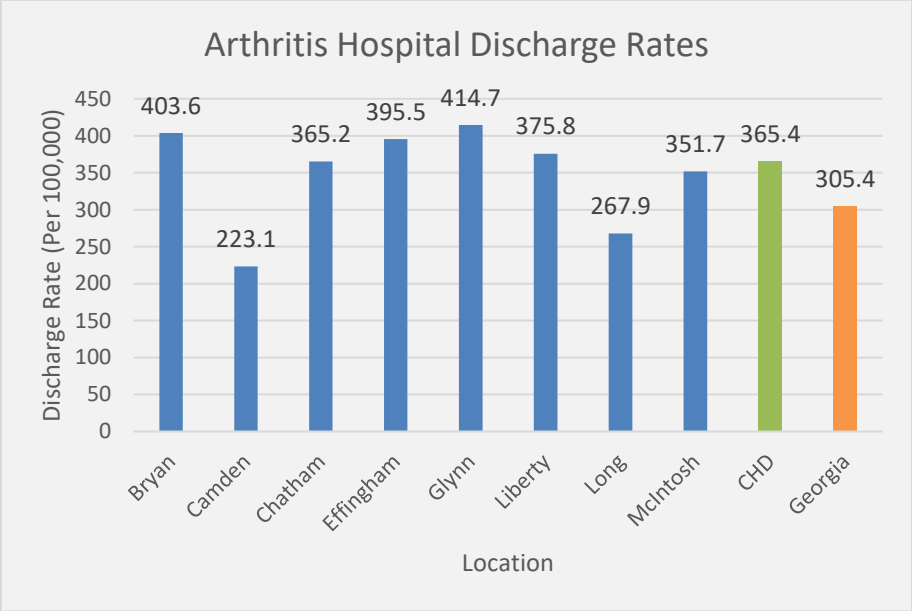
Source: CDC PLACES & BRFSS

Arthritis data across Georgia is also measured at a district level through the Arthritis Burden Report (ABR), which includes information on arthritis prevalence, including gender, race, and age distributions. However, the most recent ABR was published in 2013, with data being from 2003 – 2009. Arthritis prevalence during that timeframe increased from 25.1% in 2003 & 2005 to 25.8% in 2007 & 2009. Arthritis prevalence was higher in women (29.1%) than men (22.8%); and in Black/African Americans (26.2%) than Whites (25.6%). Furthermore, arthritis increased in prevalence as patients aged, with 56.9% being 65 and older, 36.9% being between 45 – 64 years old, and 12.3% being between 18 – 44 years old.

Arthritis Morbidity: Hospital Discharge Rates

Hospital discharge data was also compiled using OASIS, using the indicator "Bone and Muscle Diseases," which represents "diseases of the musculoskeletal system and connective tissue" [42]. CHD's age-adjusted hospital discharge rate of 365.4 per 100,000 is higher than Georgia's discharge rate of 305.4 per 100,000.

Figure 203: Age-Adjusted Arthritis Hospital Discharge Rates, by County, 2018-2022



Source: OASIS

Asthma

Asthma is a chronic inflammation of the lungs and airways. Asthma is characterized by recurring episodes of wheezing, shortness of breath, chest tightness, and coughing – especially in the late evening or early morning; these are known as asthma attacks [64] [65].

There are several risk factors for developing asthma including a family history of asthma in a parent; a personal or family history of allergies, especially eczema and/or hay fever; viral respiratory infections; exposures to certain dusts (industrial or wood), fumes, vapors, and molds in the workplace; smoking; air pollution; and obesity [66].

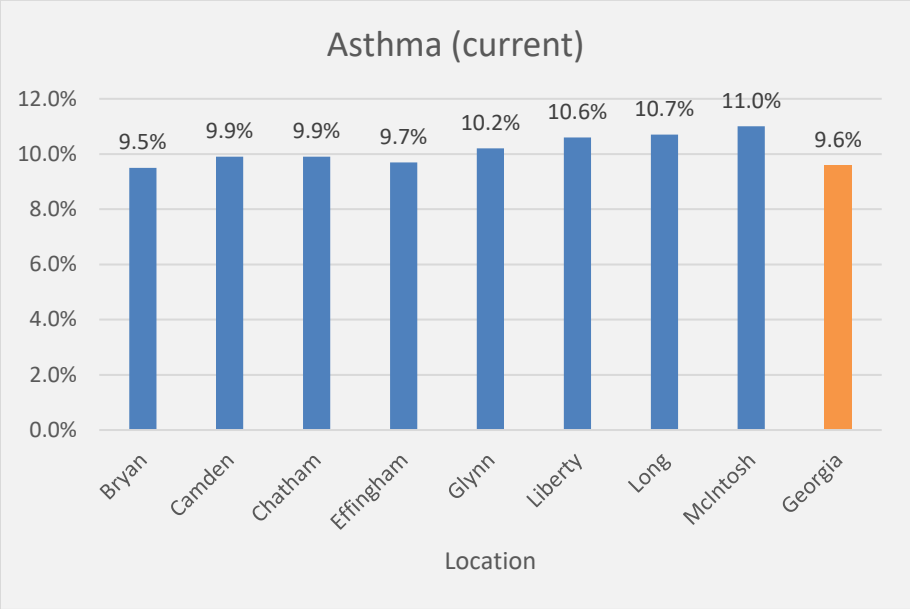
Exposure to many of the previous risk factors can also trigger an asthma attack in an individual with the disorder. Some of the most common asthma triggers are exposure to allergens including dust mites, animal fur, mice, cockroaches, and pollen (tree, flower, grass, etc.); respiratory illnesses, including colds, the flu, and RSV; fumes from some disinfectants and cleaning products; outdoor air pollution such as from factory smokestacks (ozone/smog), car exhaust, and wildfire smoke; tobacco smoke, through personal use and especially from secondhand smoke; and mold [67] [64].

The best ways to prevent an asthma attack is increasing education on how to properly use an asthma medicine (i.e., an inhaler – inhaled corticosteroids) and reducing the risk of exposure to asthma triggers [68].

Asthma: Prevalence

CDC PLACES used data from BRFSS to estimate the prevalence of current asthma among adults (18 and older), meaning patients with a personal history of asthma who verified still having the condition [41]. In the CHD counties, asthma prevalence ranged from 9.5% – 11.0% of the population, higher than Georgia's statewide average of 9.6%.

Figure 204: Age-Adjusted Asthma Prevalence, aged 18 and older, by County, 2018-2022

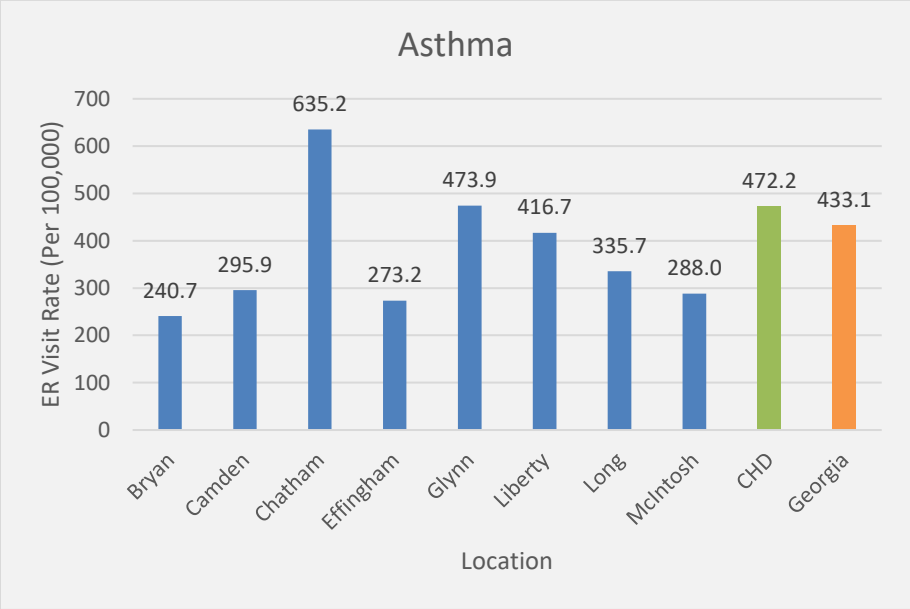


Source: CDC PLACES & BRFSS

Asthma Morbidity: Emergency Room Visit Rates

Emergency room visit rates were also compiled from OASIS to represent the disease burden of asthma. CHD's age-adjusted ER visit rate of 472.2 per 100,000 is higher than Georgia's discharge rate of 433.1 per 100,000. Of note, Chatham County's ER visit rate is nearly 1.5 times greater than both CHD and Georgia rates.

Figure 205: Age-Adjusted Asthma Emergency Room (ER) Visit Rates, by County, 2018-2022



Source: OASIS

Chronic Kidney Disease

Chronic kidney disease (CKD) is a disease caused by damage to the kidneys over a sustained period of time (at least 3 months) [69]. This damage means the kidneys are unable to filter (clean) blood as well as they should, leading to excess fluid and waste remaining in the body. [70] This is how CKD is diagnosed, through an eGFR blood test (to see how well the kidneys are filtering) and an uACR urine test (to determine if a protein called albumin is leaking from the kidneys into the urine) [69]. CKD has a 5-stage progression from onset (stage 1) to end-stage renal disease (stage 5) [69]. Below is a chart from the National Kidney Foundation detailing the differences between the stages. [71] It is important to note that CKD is usually non-symptomatic at onset, and thus the best way to prevent severe loss of function is testing early and regularly [69] [70].

What are the stages of chronic kidney disease (CKD)?

Stage	Description	eGFR	Kidney Function
1	Possible kidney damage (e.g., protein in the urine) with ***normal*** kidney function	90 or above	 90-100%
2	Kidney damage with ***mild loss*** of kidney function	60-89	 60-89%
3a	***Mild to moderate*** loss of kidney function	45-59	 45-59%
3b	***Moderate to severe*** loss of kidney function	30-44	 30-44%
4	***Severe loss*** of kidney function	15-29	 15-29%
5	Kidney ***failure***	Less than 15	 Less than 15%

Source: National Kidney Foundation

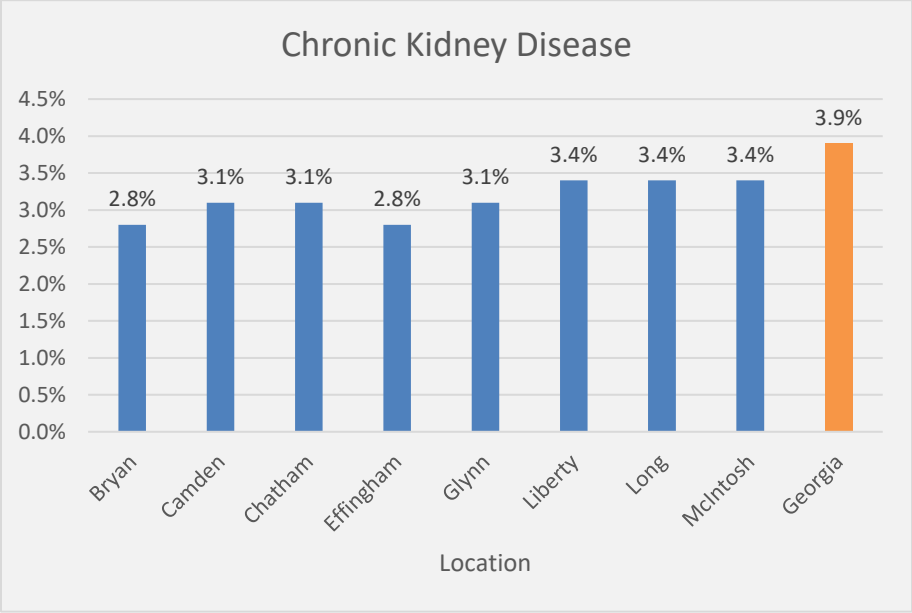
Risk factors for CKD are high blood pressure; diabetes; heart disease; obesity; a family history of chronic kidney disease; age (being over 60); a personal or family history of acute kidney injury; and tobacco use [70] [69]. Individuals with CKD frequently also suffer from anemia; increased risk & occurrence of infections; low calcium, high potassium, and/or high phosphorus in the bloodstream; loss of appetite; and depression [70].

Some of the best ways to prevent CKD are by keeping blood pressure, blood sugar, and cholesterol in a healthy range; maintaining a healthy weight, staying physically active, following a kidney-healthy eating plan (low-sodium, high in vegetables and fruits); and quitting smoking [72].

Chronic Kidney Disease: Prevalence

According to CDC PLACES, the estimated prevalence of chronic kidney disease among adults (18 and older) in the CHD counties ranged from 2.8% – 3.4% of the population, lower than Georgia's 3.9%.

Figure 206: Age-Adjusted Chronic Kidney Disease Prevalence, aged 18 and older, by County, 2018-2022

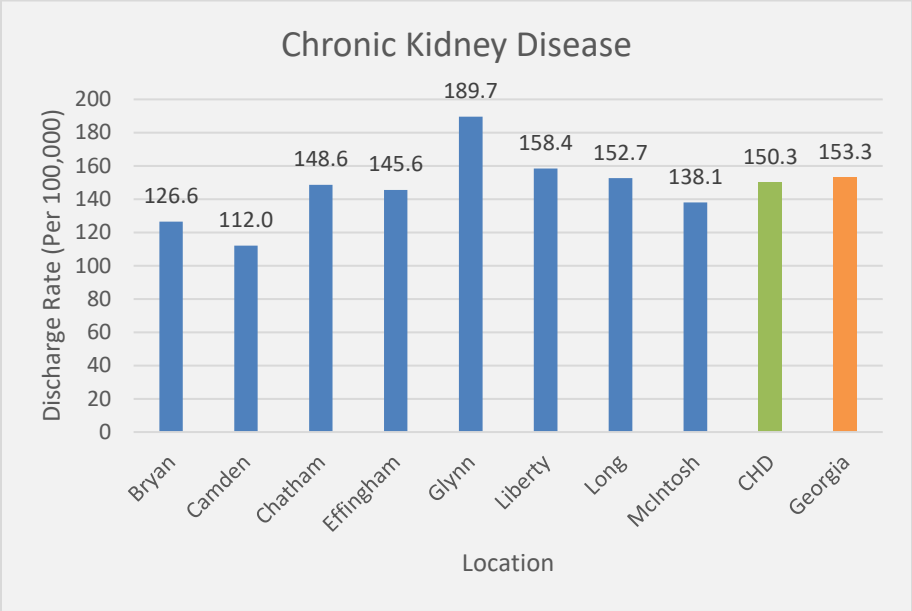


Source: CDC PLACES & BRFSS

Chronic Kidney Disease Morbidity: Hospital Discharge Rates

According to OASIS 2018 – 2022 5-year averages, CHD's age-adjusted hospital discharge rate of 150.3 per 100,000 is higher than Georgia's discharge rate of 153.3 per 100,000.

Figure 207: Age-Adjusted Chronic Kidney Disease Hospital Discharge Rates, by County, 2018-2022



Source: OASIS

Chronic Obstructive Pulmonary Disorder (COPD)

Chronic Obstructive Pulmonary Disorder (COPD) is a term used to describe a group of diseases that limit airflow and breathing-related problems [73] [74]. Both chronic bronchitis and emphysema are types of COPD [73] [74]. COPD is a progressive illness, meaning it worsens over time, with its symptoms including chronic cough, excess mucus or phlegm that is brought up by frequent coughing, shortness of breath (including difficulty taking a deep breath and feeling as if is difficult/impossible to breathe), wheezing/chest tightness, and fatigue [73] [75] [74].

The main risk factor for developing COPD is tobacco use, both current and former; it is actually for this reason that the illness is often referred to as a "smoker's disease" [76]. Other top causes of COPD are quite actually similar to asthma, including exposure to secondhand smoke; exposure to air pollution, whether in the home and the workplace, such as from a coal or wood burning stove; a genetic condition called Alpha-1 antitrypsin deficiency (AATD); repeated childhood respiratory infections, such as pneumonia; current or former asthma; having underdeveloped lungs; and natural age-related lung function degeneration in those 40 and over [76] [74].

Populations with higher than average reported rates for COPD include the following: former or current smokers; people 65 and older; people with a personal history of asthma; women; American Indians/Alaska Natives, as well as non-Hispanic/Latino multiracial individuals; people who are not working, whether that be due to unemployment, retirement, or an inability to work; people with less than a 12th-grade education; and people who are separated, divorced, or widowed [74].

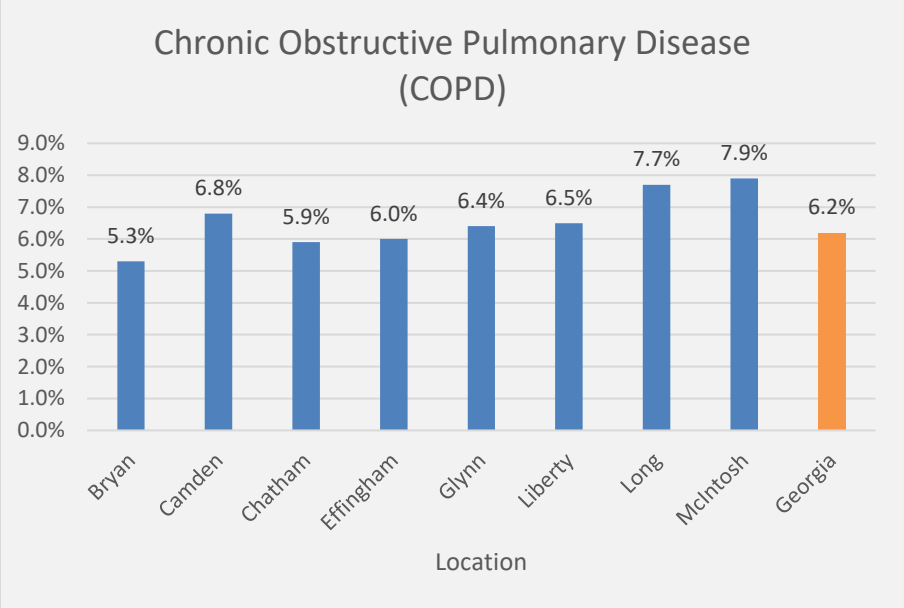
One of the most significant complications of COPD is a need to limit physical activity, often due to difficulties in walking or climbing stairs [74]. As a result, patients often end up with restrictions in other aspects of the quality of life, including needing specialized equipment such as a portable oxygen tank; being unable to work; constraints on social activities including going out with friends or attending services at places of worship (possible stairs or long-distance walks); and depression or other mental/emotional conditions [74]. Other complications of COPD are an increased risk for chronic diseases like asthma, arthritis, coronary heart disease, diabetes, etc.; memory loss or increased confusion; and more frequent visits to the emergency room and/or overnight hospital stays [74].

Some ways to prevent COPD are by reducing exposure to tobacco smoke (directly and through secondhand smoke); air pollutants in the home and workplace; and respiratory diseases [74].

Chronic Obstructive Pulmonary Disorder (COPD): Prevalence

According to CDC PLACES, the estimated prevalence of chronic obstructive pulmonary disorder (COPD) among adults (18 and older) in the CHD counties ranged from 5.3% – 7.9% of the population, with only Bryan, Chatham, and Effingham Counties lower than Georgia's 6.2%.

Figure 208: Age-Adjusted Chronic Obstructive Pulmonary Disorder (COPD) Prevalence, aged 18 and older, by County, 2018-2022

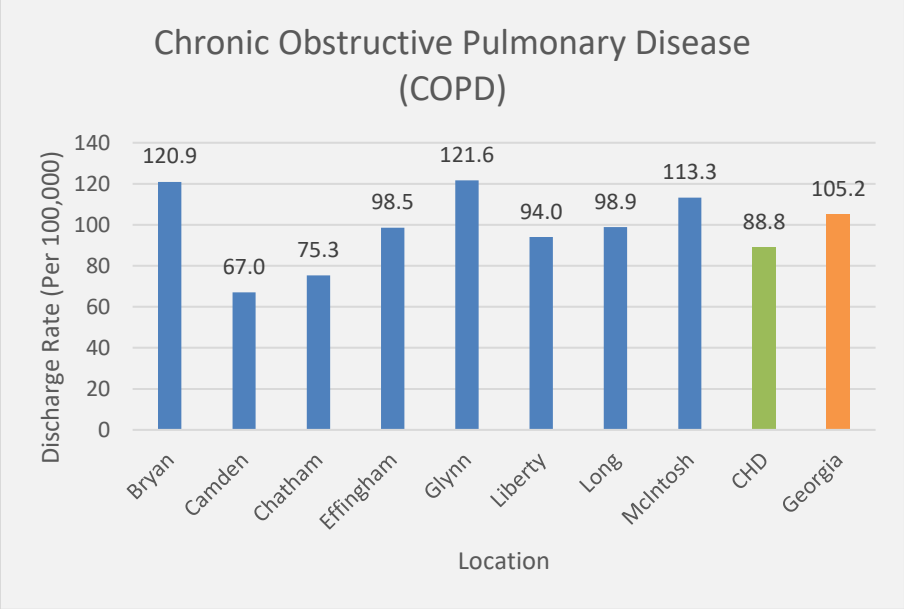


Source: CDC PLACES & BRFSS

Chronic Obstructive Pulmonary Disorder (COPD) Morbidity: Hospital Discharge Rates

Hospital discharge data was also compiled using OASIS, using the Georgia Rankable Cause indicator "All COPD Except Asthma" [3]. CHD's age-adjusted hospital discharge rate of 88.8 per 100,000 is lower than Georgia's discharge rate of 105.2 per 100,000. However, it is important to note that only Camden County and Chatham County are lower than the Coastal Health District's overall average.

Figure 209: Age-Adjusted Chronic Obstructive Pulmonary Disorder (COPD) Hospital Discharge Rates, by County, 2018-2022



Source: OASIS

Coronary Heart Disease

Coronary heart disease, also known as coronary artery disease or ischemic heart disease, is a condition where plaque (cholesterol deposits) builds up in the walls of the coronary arteries (which supply blood to the heart), causing the arteries to harden and thicken [77]. This will cause atherosclerosis, a process that causes the interior of the arteries to narrow and which will partially, or even completely, block the flow of blood to the heart [77].

Some individuals with coronary heart disease have symptoms such as chest pain or discomfort (also called angina) due to the narrowed arteries causing blockage of blood flow; however, for many, the first sign of coronary heart disease is a heart attack [77].

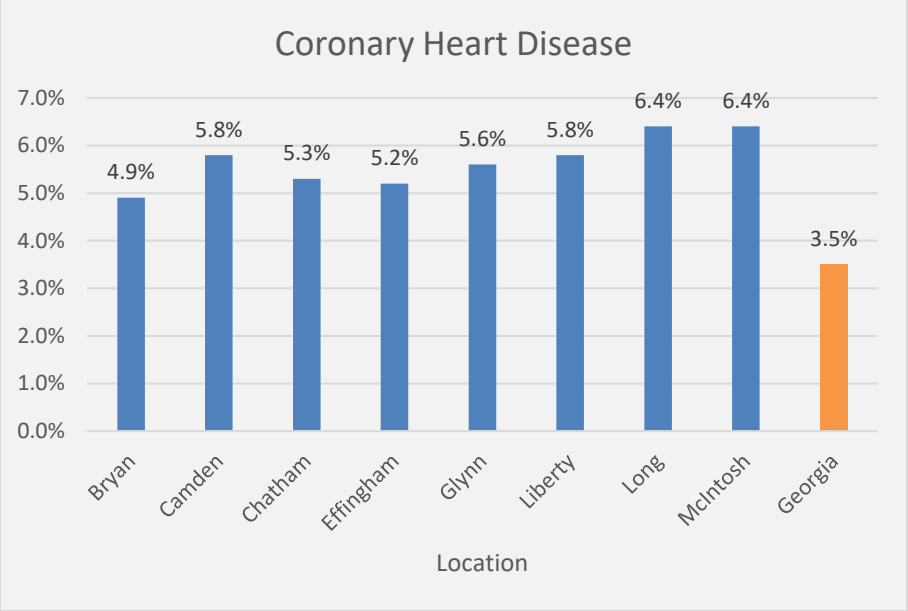
The top risk factors for coronary heart disease are being overweight/obese; poor nutrition; physical inactivity; tobacco use; and a family history of heart disease, especially when relatives were diagnosed at age 50 or younger [77]. Medical conditions that increase the risk of developing coronary heart disease are high blood pressure; high LDL cholesterol & low HDL cholesterol; and diabetes [78] [79].

Lifestyle changes that can reduce the risk of developing coronary heart disease and its complications are achieving and sustaining a healthy weight; engaging in regular physical activity; making healthy nutrition choices (lower fat, lower sodium, lower sugar, low-to-moderate alcohol intake, increased fiber); quitting smoking; and taking medications for related risk factors (high blood cholesterol, high blood pressure, or diabetes) as directed [77] [78] [79].

Coronary Heart Disease: Prevalence

CDC PLACES used data from BRFSS to estimate the prevalence of coronary heart disease among adults (18 and older) with a diagnosis of coronary heart disease or angina. In the CHD counties, coronary heart disease & angina prevalence ranged from 4.9% – 6.4% of the population, higher than Georgia's statewide average of 3.5%.

Figure 210: Age-Adjusted Coronary Heart Disease Prevalence, aged 18 and older, by County, 2018-2022

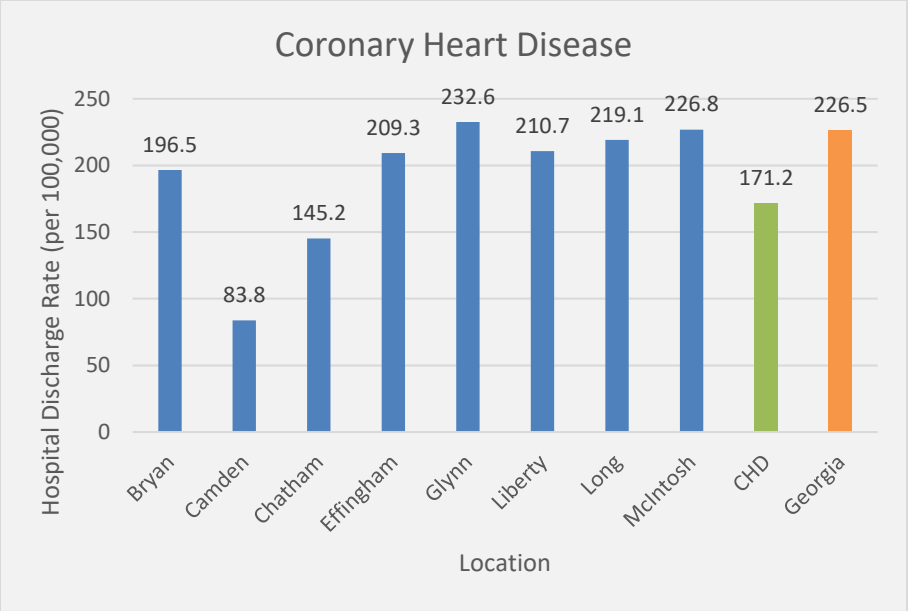


Source: CDC PLACES & BRFSS

Coronary Heart Disease: Hospital Discharge Rates

Hospital discharge data was also compiled from OASIS, using the indicator "Obstructive Heart Diseases (Ischemic Heart Diseases, includes Heart Attack)" [3]. From 2018–2022, the CHD's age-adjusted hospital discharge rate averaged 171.2 per 100,000, lower than Georgia's discharge rate is 226.5 per 100,000. However, it is important to note that only Camden County and Chatham County are lower than the CHD overall average, with Camden County in particular equaling less than half of the district's average.

Figure 211: Age-Adjusted Coronary Heart Disease Hospital Discharge Rates, by County, 2018-2022



Source: OASIS

Diabetes

Diabetes is a disease that occurs when the body either doesn't make enough insulin or is unable to use the insulin it can make efficiently [80] [81] [82]. Insulin is needed to convert blood sugar (blood glucose) into energy the body can effectively use, so a lack of it causes blood sugar levels to rise in the body [80] [81] [82]. When there is too much glucose in the bloodstream, it can cause severe health complications, including cardiovascular disease, blindness, kidney failure, and nerve damage & amputation of the lower limbs [83].

There are 3 main types of diabetes: Type 1, Type 2, and Gestational Diabetes [80] [82]. Type 1, also known as insulin-dependent diabetes, happens when the immune system attacks the pancreas and destroys the cells that allow the body to make its own insulin [80] [82]. As can be inferred by the name, a person with Type 1 diabetes needs to take insulin every single day to survive [80] [81] [82]. Type 1 diabetes is mostly seen in children and young adults and for that was also previously known as juvenile diabetes; however, it can occur at any age and usually does so suddenly [80] [81].

Type 2 diabetes occurs when the body develops "insulin resistance", meaning it cannot use insulin properly and/or the pancreas gradually loses the ability to produce enough insulin [82] [81]. In both situations, the body becomes unable to keep blood sugar within a normal range on its own [80]. Type 2 is the most common form of diabetes by a significant amount. Approximately 90-95% of people with diabetes have Type 2, while only 5-10% have Type 1 [80]. Additionally, while Type 2 has historically been mainly diagnosed in adults, rates are rising substantially in children, adolescents, & young adults, likely due to family history and increasing obesity & physical inactivity rates in these age groups [80] [81] [82].

Non-modifiable risk factors (i.e., risk factors that cannot be changed or controlled) for diabetes include being middle-aged or older (after 40); race (African American, Asian American, Hispanic/Latino, Native American/American Indian/Alaska Native, or Pacific Islander); a family history of diabetes in a parent or sibling; a personal history of gestational diabetes, which is when diabetes occurs during pregnancy; or having given birth to a baby weighing at least 9 pounds [84] [85] [86].

Lifestyle risk factors for diabetes include being overweight/obese; lack of physical activity (less than 3 times per week); living a sedentary lifestyle, including jobs that involves sitting for hours at a time; having a higher than average waist circumference (more than 40 inches for men; 35 inches for women); low HDL cholesterol & high triglycerides; diets high in sugar, refined carbs (breads, pastas, packaged cereals) and sweetened beverages; high levels of stress; getting too little or too much sleep; heavy alcohol use; and smoking [84] [85] [86].

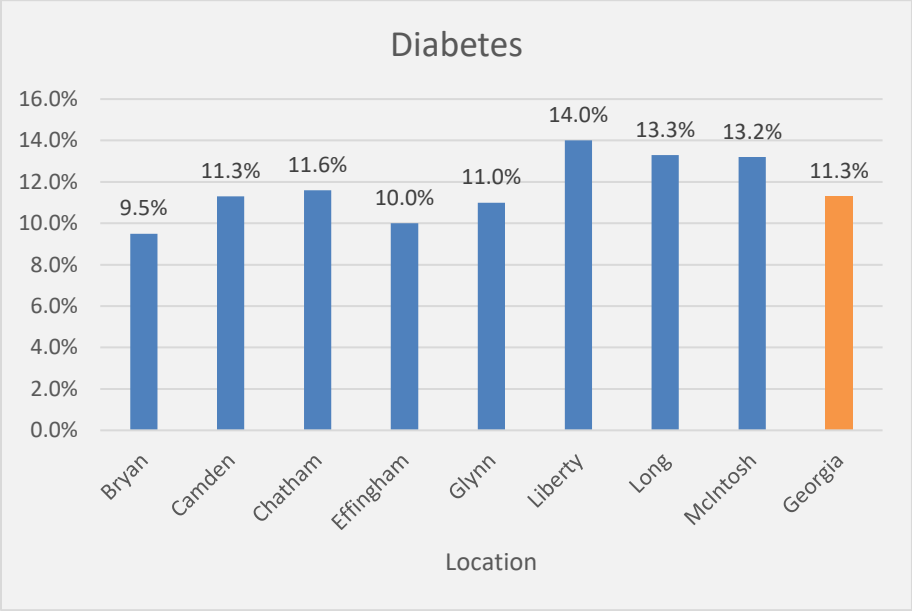
There is currently no way to prevent Type 1 diabetes. However, some lifestyle changes that can prevent Type 2 diabetes are eating a healthy diet (high in fruits & vegetables, whole grains, and lean proteins), engaging in regular physical activity, and if overweight/obese, losing 5% – 7% of overall body weight [84] [85] [86] [87].

The following data collection and calculations will not include gestational diabetes.

Diabetes: Prevalence

According to CDC PLACES and BRFSS, prevalence of diagnosed diabetes among adults (18 and older) in the CHD counties ranged from 9.5% – 14.0% of the population, similar to Georgia's statewide average of 11.3%.

Figure 212: Age Adjusted Diabetes Prevalence, aged 18 and older, by County, 2018-2022

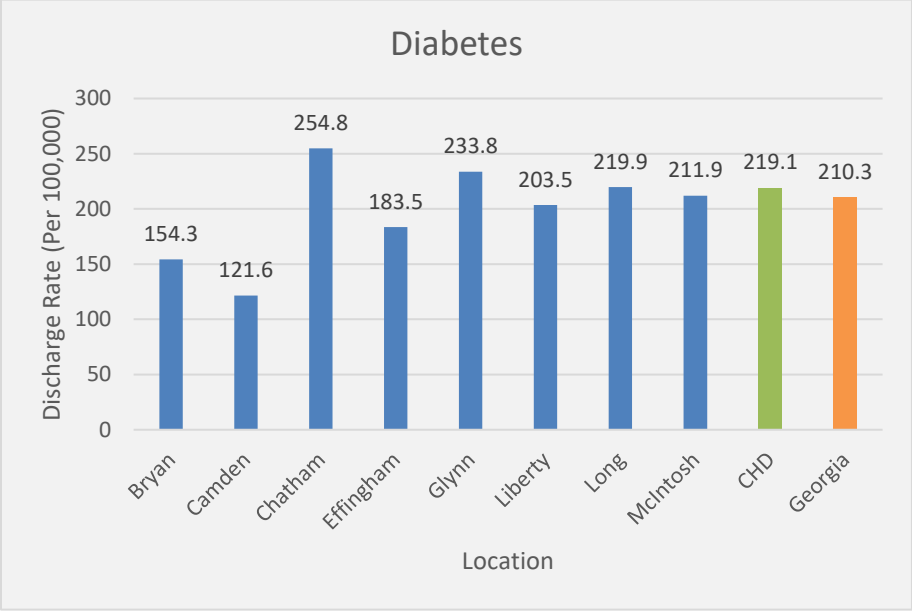


Source: CDC PLACES & BRFSS

Diabetes Morbidity: Hospital Discharge Rates

According to OASIS 2018 – 2022 5-year averages, CHD's diabetes hospital discharge rate of 219.1 per 100,000 is similar to Georgia's diabetes discharge rate of 210.3 per 100,000. Of note, diabetes hospital discharge rates in Bryan County and Camden County are significantly lower than the other 8 CHD counties, with Camden County in particular being nearly half CHD and Georgia rates.

Figure 213: Age-Adjusted Diabetes Hospital Discharge Rates, by County, 2018-2022

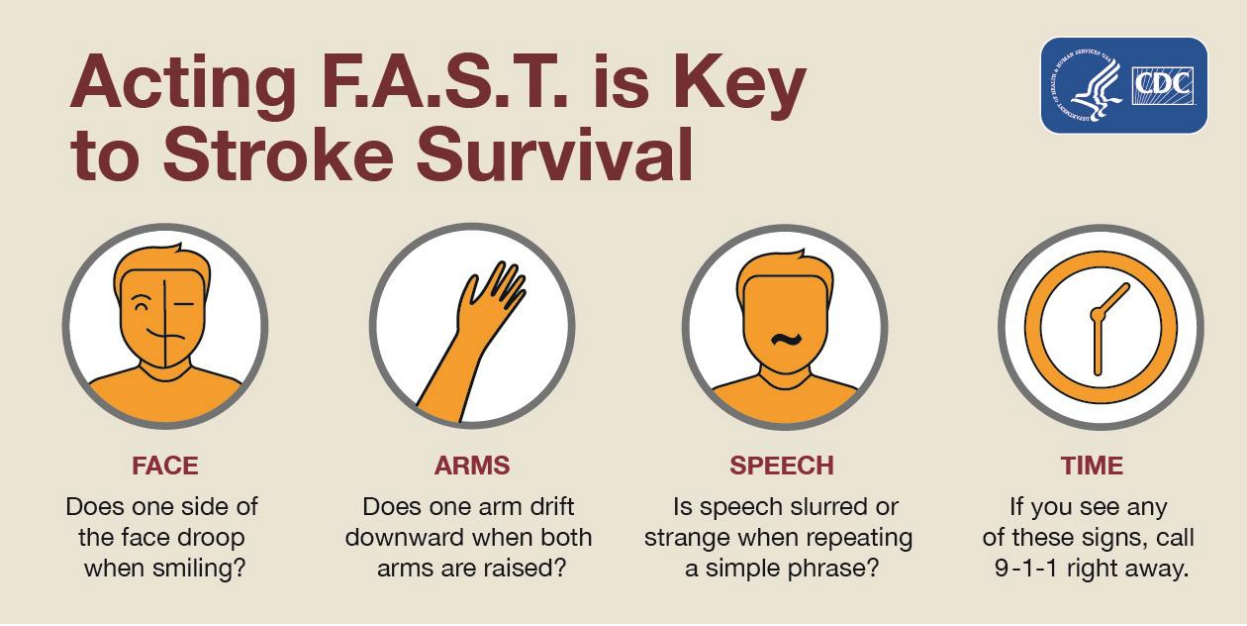


Source: OASIS

Stroke

A stroke occurs when there is an interruption of blood flow to the brain, leading to a blockage of the blood supply or a burst artery [88] [89]. There are 2 types of strokes: about 13% are hemorrhagic strokes, and 87% are ischemic strokes [90] [91]. A hemorrhagic stroke is when an artery in the brain ruptures; the accumulation of blood from the brain bleed puts pressure on the surrounding tissues, damaging them [90] [92]. An ischemic stroke happens when a blood clot blocks arterial blood flow and prevents oxygen and nutrients from reaching one or more parts of the brain [91] [92]. Additionally, a person can also have a "mini-stroke," formally known as a transient ischemic attack (TIA), which is similar to an ischemic stroke, except that the clot is temporary, and the blockage occurs for 5 minutes or less [88] [89].

Treatments for a stroke are often only effective if diagnosed within the first 3 hours following symptom onset [92]. In that regard, the fittingly named acronym F.A.S.T. is a rapid test to assess if an individual is having stroke symptoms (see the image below). Some other possible symptoms of a stroke include a sudden and severe headache with no known cause; loss of balance, lack of coordination, or trouble walking; difficulty seeing in one or both eyes; and difficulty understanding speech [92].



Source: CDC (https://www.cdc.gov/stroke/images/FAST-Graphic.jpg)

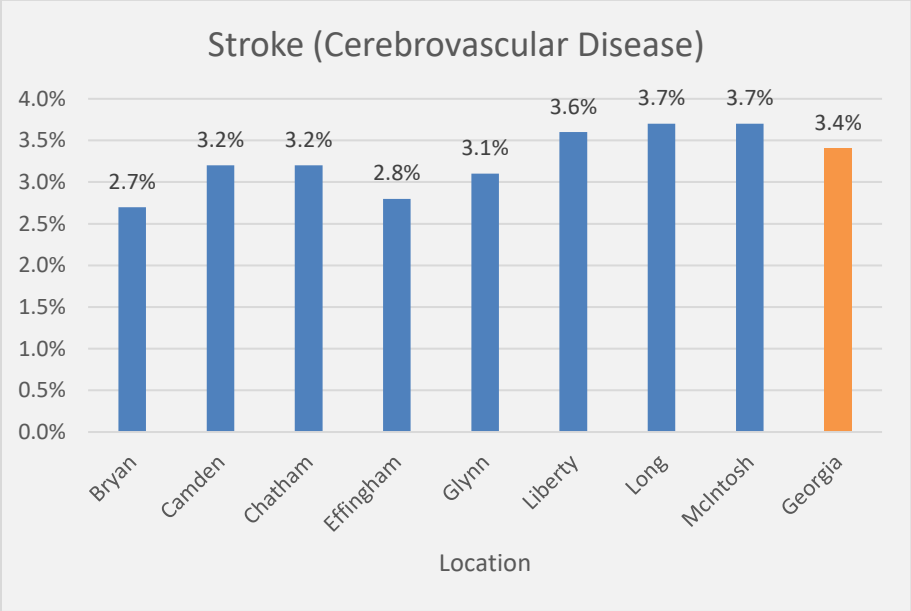
Medical risk factors for a stroke include having had a stroke (either type) or a "mini-stoke" in the past; cardiovascular-related health conditions (high blood pressure, high cholesterol, heart disease); diabetes; obesity; sickle-cell disease; older age; gender (women); and family history of stroke [93]. Behavioral risk factors for a stroke include a diet high in saturated fats, trans fats, and cholesterol; physical inactivity; excess alcohol intake; and tobacco use/smoking [93]. Strokes are more commonly seen or more likely to be severe in the following demographics: older adults (55+), women, and non-Hispanic/Latino Black/African American & Pacific Islanders [93].

Some steps that can be taken to prevent a stroke are eating healthy food options (low fat, low sodium, high fiber, high intake of fruits and vegetables); maintaining a healthy weight; physical activity regularly; quitting smoking; limiting alcohol consumption; and keeping related medical conditions (high blood pressure, high blood cholesterol, heart disease, or diabetes) under control by taking medication as directed [94].

Stroke (Cerebrovascular Disease): Prevalence

According to CDC PLACES and BRFSS, prevalence of cerebrovascular disease among adults (18 and older), meaning patients who reported ever having had a stroke, in the CHD counties ranged from 2.7% – 3.7% of the population, similar to Georgia's statewide average of 3.4%.

Figure 214: Age-Adjusted Stroke (Cerebrovascular Disease) Prevalence, aged 18 and older, by County, 2018-2022

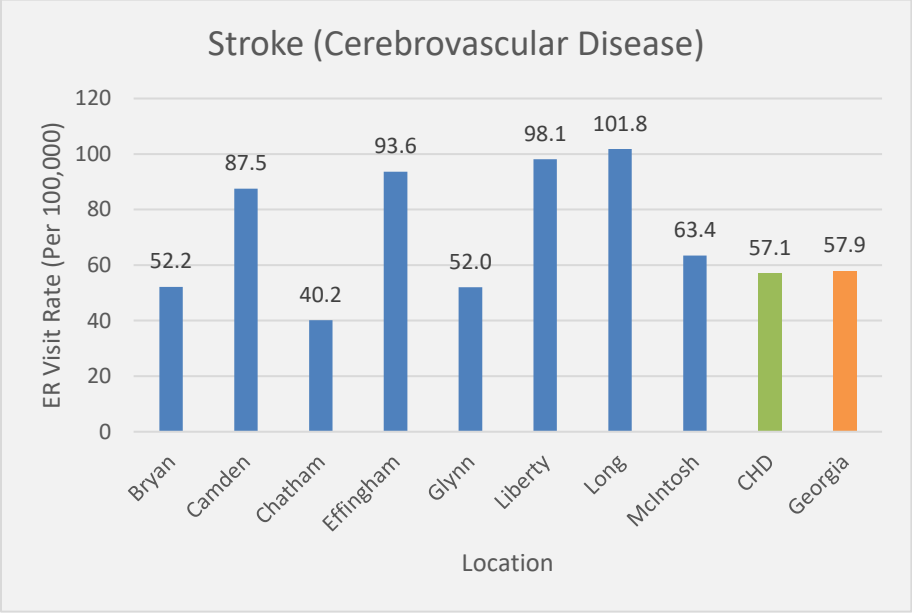


Source: CDC PLACES & BRFSS

Stroke (Cerebrovascular Disease) Morbidity: Emergency Room Visit Rates

According to OASIS 2018 – 2022 5-year averages, CHD's stroke (cerebrovascular disease) hospital discharge rate of 57.1 per 100,000 is nearly identical to Georgia's stroke discharge rate of 57.9 per 100,000. Of note, stroke hospital discharge rates in 4 of the 8 Counties (Camden, Effingham, Liberty, & Long Counties) are approximately 1.5 – 1.75 times higher compared to both CHD and Georgia rates.

Figure 215: Age-Adjusted Stroke (Cerebrovascular Disease) Emergency Room Visit Rates, by County, 2018-2022



Source: OASIS

Cancer

All Types

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells in the body [95]. It can develop and spread to any area of the body, with stages 1 – 4 representing how far the abnormal cells have spread from the cancer origin [95]. If cell growth is not adequately controlled, it can result in death [96]. The risk of developing cancer is influenced by several internal and external factors, such as drinking alcohol, obesity, smoking tobacco, family history of cancer, and exposure to environmental pollutants [97]. Many cancers can be prevented by lifestyle changes, and many can be cured if detected early and treated properly.

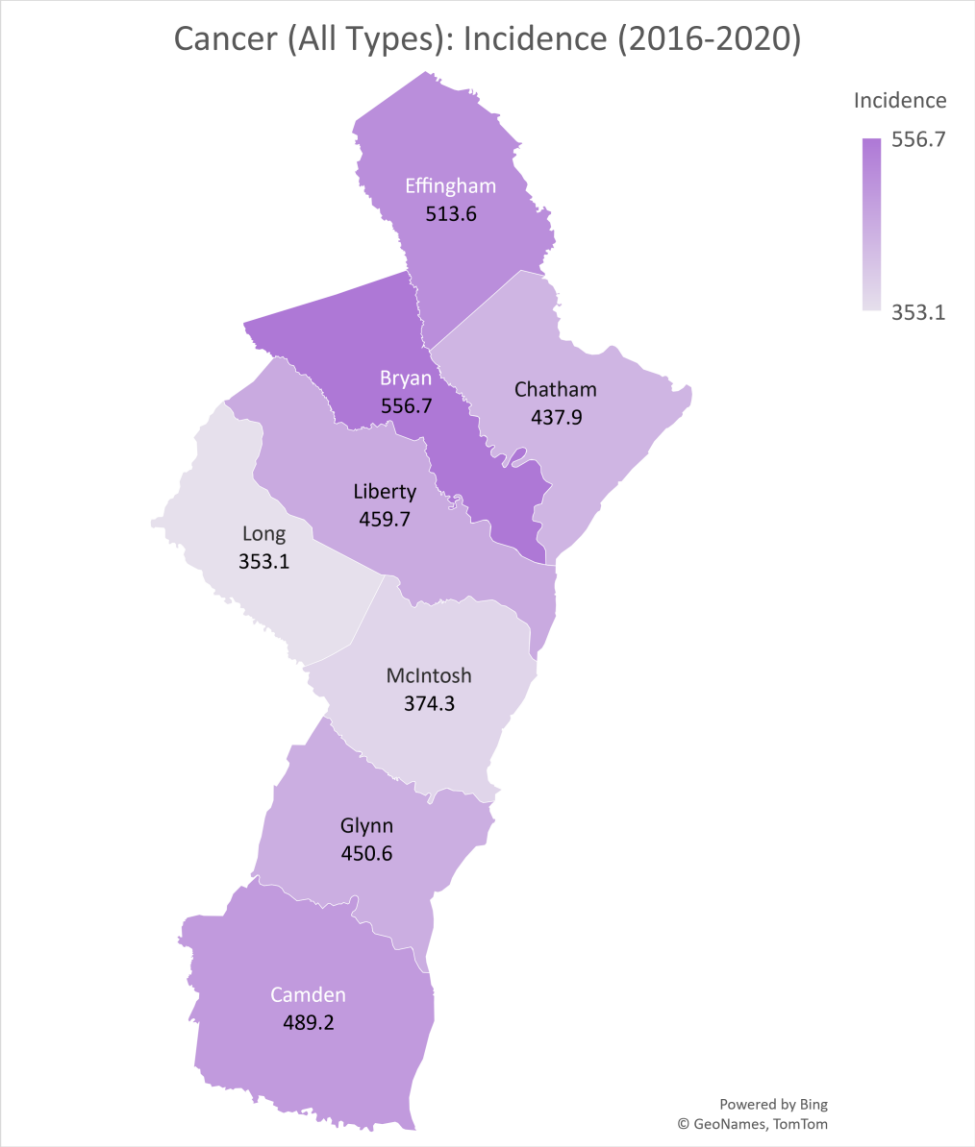
Data for cancer incidence comes from the State Cancer Profiles, which is published jointly by the NIH's National Cancer Institute and the CDC. Data for cancer mortality was collected from OASIS. As the most recent 5-year average available from the State Cancer Profiles is 2016-2020, mortality data from OASIS was also consolidated using that same 5-year period; however, cancer mortality, as well as morbidity, data for 2021 and 2022 can be found on the OASIS website.

Cancer Incidence (Any Type)

Data in the figure below accounts for cancer of any site in the body, including oral & throat, esophageal, stomach, colon & rectum, liver, pancreatic, lung, skin (melanoma), breast, cervical, uterine, ovarian, prostate, testicular, bladder, kidney, brain & other nervous system, thyroid, leukemia, etc.

According to the Georgia Department of Public Health and the Georgia Comprehensive Cancer Registry, the 2016-2020 incidence rate for cancer at any site ranged from 353.1 – 556.7, with Bryan, Camden, and Effingham Counties all having rates higher than the CHD's average of 453.3 per 100,000 and Georgia's statewide average of 462.8.

Figure 216: Age-Adjusted Cancer Incidence, by County, 2016-2020

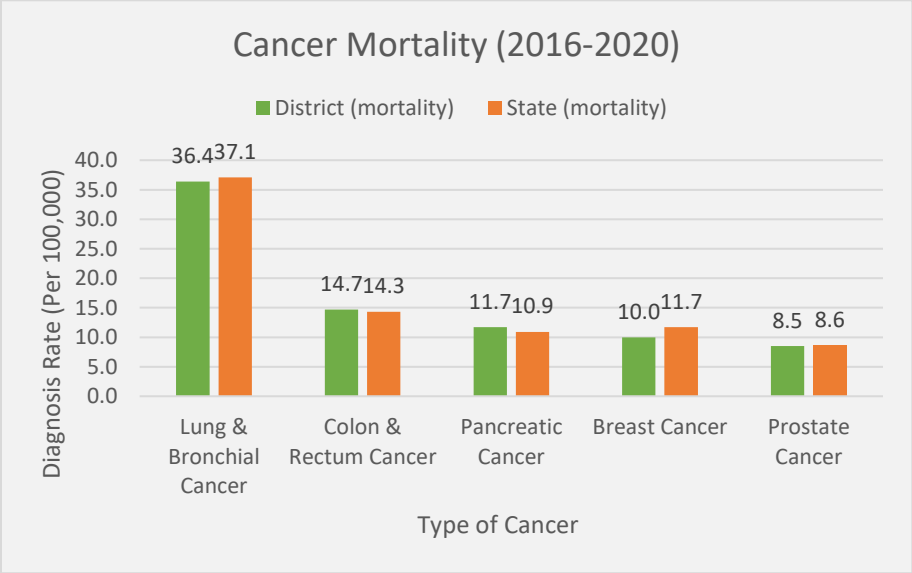


Source: DPH Cancer Incidence Rates

Cancer Mortality (Any Type)

Cancer is the second leading cause of death in the United States, Georgia, and the Coastal Health District. The 5 cancers with the highest mortality rates in the Coastal Health District are lung, colorectal, pancreatic, breast, and prostate [3].

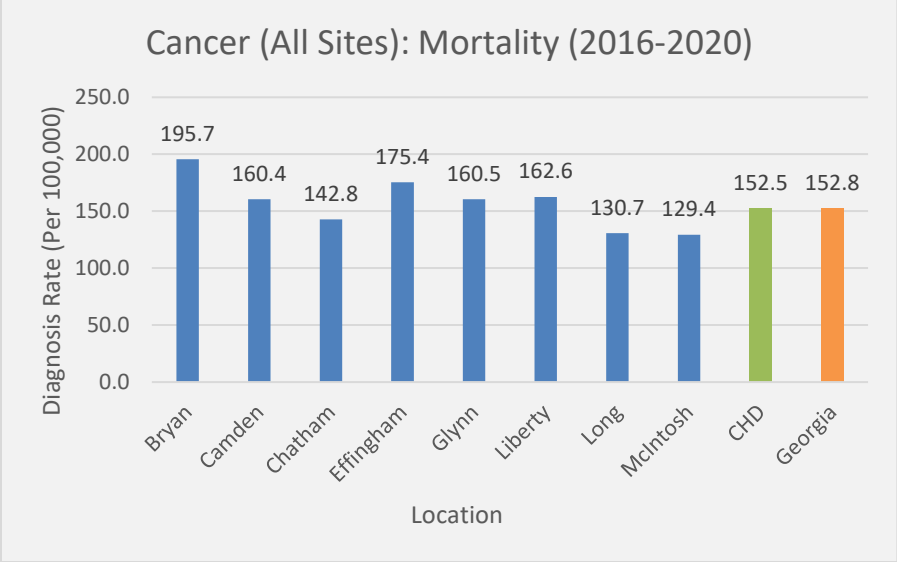
Figure 217: Age-Adjusted Cancer Mortality Rate, by Type, CHD & GA, 2016-2020



Source: OASIS

CHD's mortality rate of 152.5 per 100,000 is nearly identical to Georgia's rate of 152.8 per 100,000.

Figure 218: Age-Adjusted Cancer Mortality Rate, by County, 2016-2020

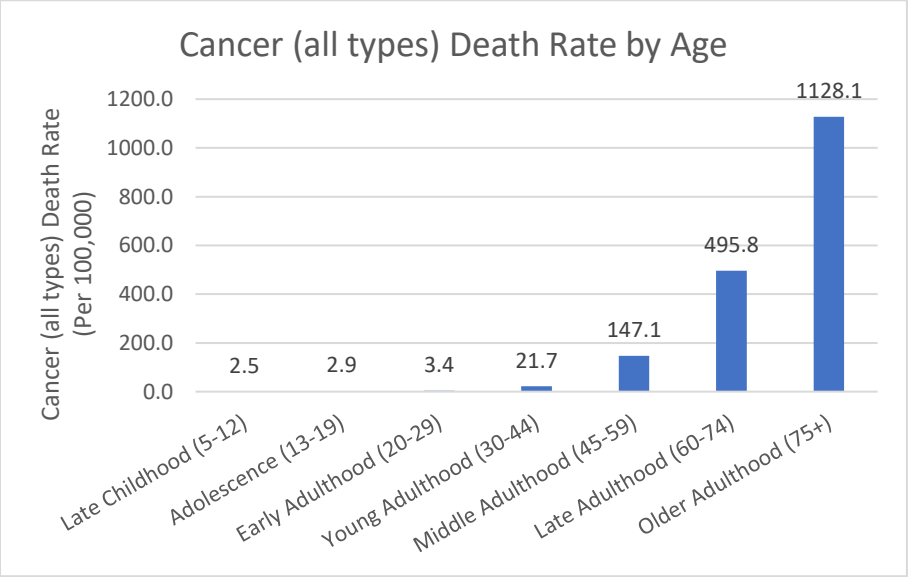


Source: OASIS

Cancer (all types): Mortality Demographics

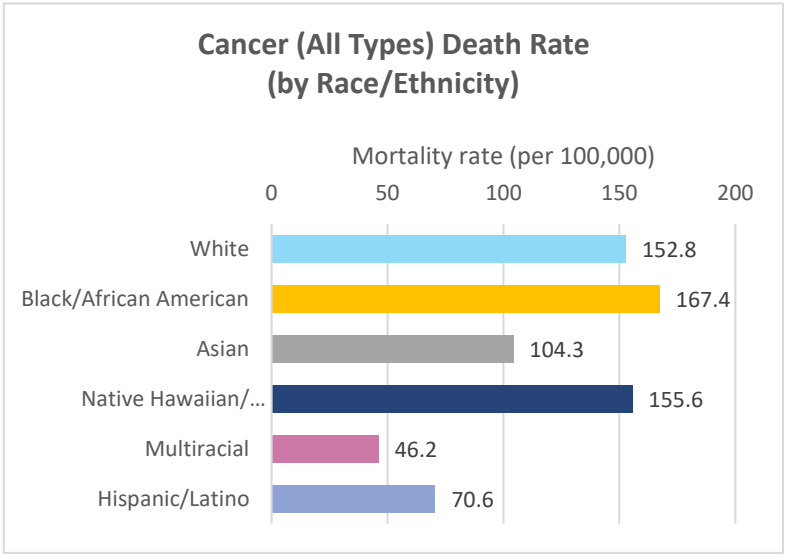
The figures below show the 2016-2020 Coastal Health District mortality (death) rate (per 100,000) from cancer (all types) broken down by age, race/ethnicity, and sex. Due to data suppression, mortality rates could not be presented for 0–4-year-olds, or American Indians/Alaska Natives. Pancreatic cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), Black/African Americans, and males.

Figure 219: Cancer Death Rates by Age, CHD, 2016-2020



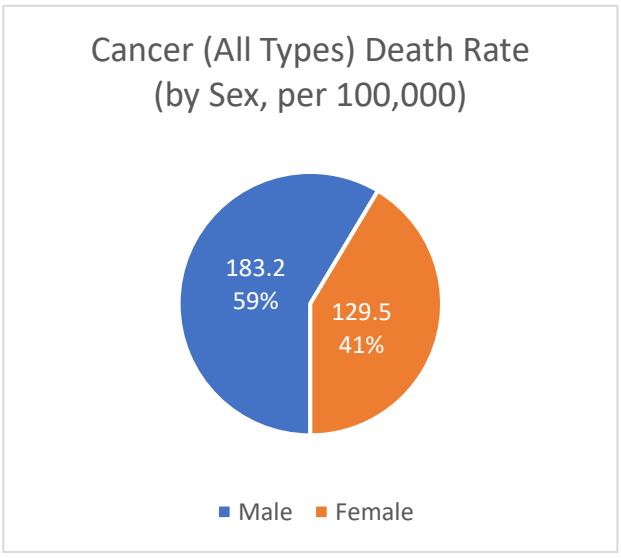
Source: OASIS

Figure 220: Age-Adjusted Cancer (all types) Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Figure 221: Age-Adjusted Cancer (all types) Death Rates by Sex, CHD, 2016-2020



Source: OASIS

Lung Cancer

Excluding skin cancer, lung cancer is the 2nd most common type of cancer in the United States, only behind prostate cancer (in men) and breast cancer (in women). The 2 main types of lung cancer are non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC), accounting for 80-85% and 10-15% of lung cancer cases, respectively [98].

Lung cancer is mostly seen in older adults, with the average age at diagnosis being 70 years old. It is the leading cause of death from cancer in the United States, accounting for approximately 20% of all cancer deaths. Annually, lung cancer can be attributed to more cancer deaths than colon, breast, and prostate cancers combined [98].

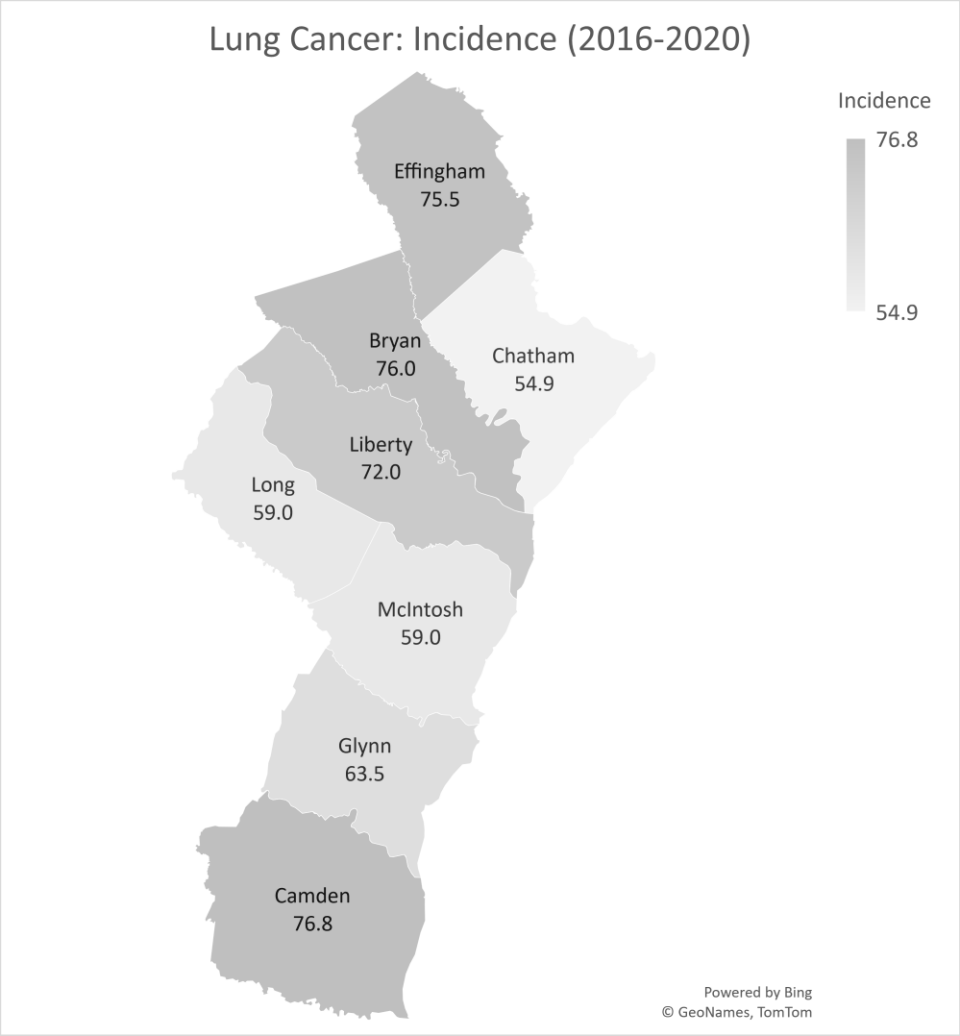
Lung cancer incidence is slightly higher in men compared to women [98]. Furthermore, the incidence is about 12% higher in Black men compared to White men; however, the incidence in Black women is about 16% lower compared to White women [98].

Cigarette smoking is the number one risk factor for lung cancer [99]. It is linked to about 80% to 90% of lung cancers in the United States [99]. Other risk factors for lung cancer include secondhand smoke; personal or family history of lung cancer; air pollution, and exposure to environmental toxins, such as radon, asbestos, arsenic, and diesel exhaust [99] [100].

Lung Cancer: Incidence

Lung cancer incidence rate in CHD counties ranged from 54.9 – 76.8 per 100,000, with only Chatham County having a rate lower than both CHD's average of 62.1 per 100,000 and Georgia's statewide average of 57.8 per 100,000.

Figure 222: Age-Adjusted Lung Cancer Incidence, by County, 2016-2020

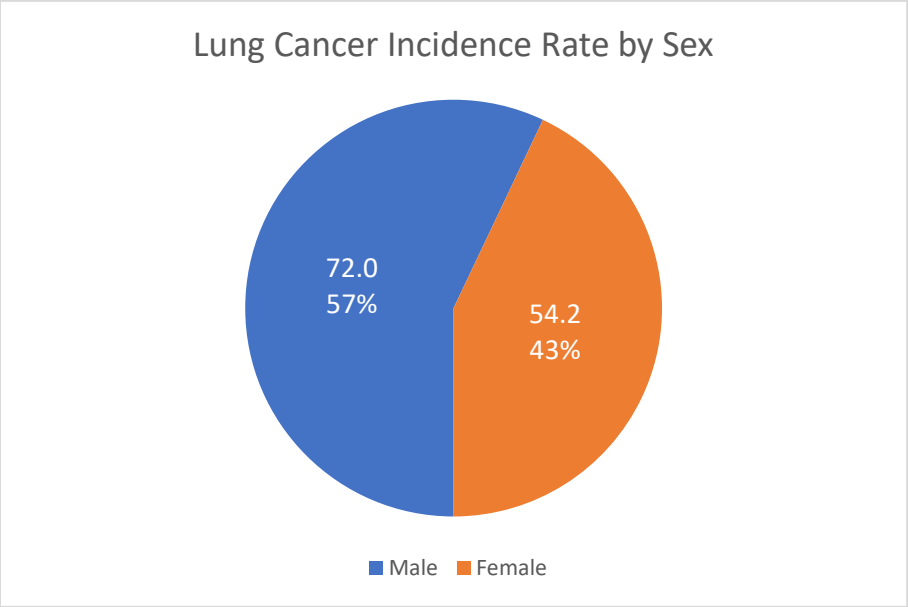


Source: DPH Cancer Incidence Rates

Lung Cancer Incidence: Demographics

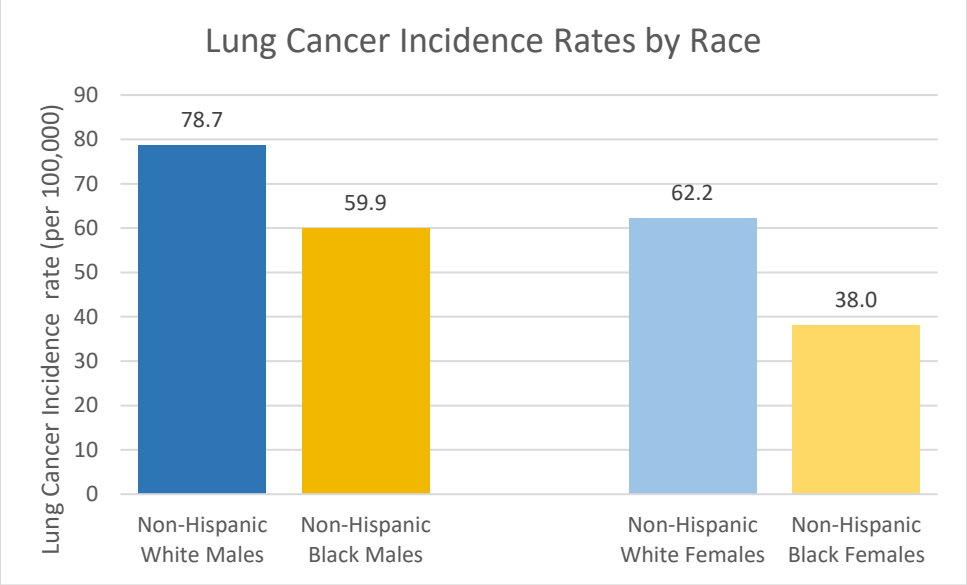
The figures below show lung cancer incidence rates from 2016–2020 broken down by sex and race. Lung cancer incidence rates (per 100,000) are highest among non-Hispanic/Latino White males.

Figure 223: Age-Adjusted Lung Cancer Incidence by Sex, CHD, 2016-2020



Source: OASIS

Figure 224: Age-Adjusted Lung Cancer Incidence Rate by Sex & Race, CHD, 2016-2020

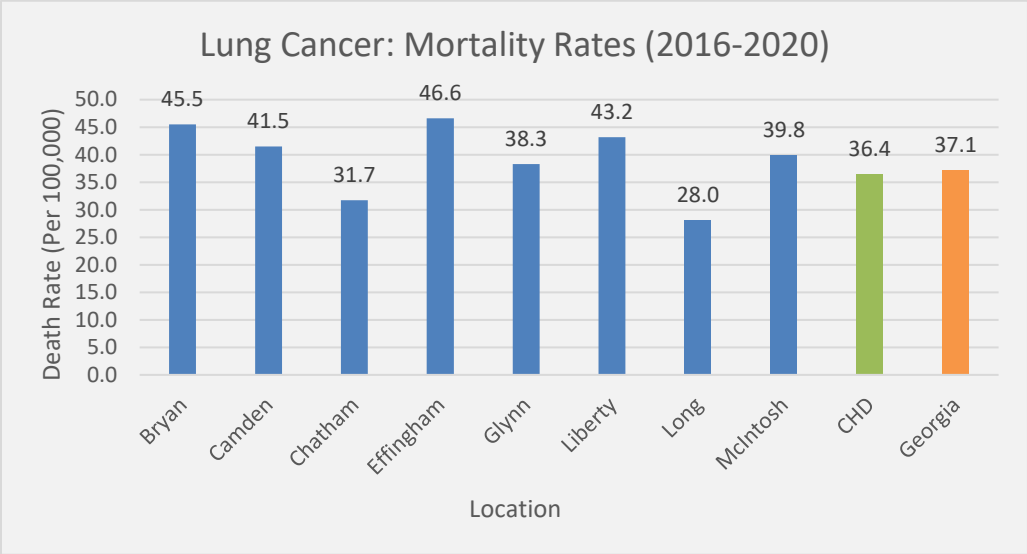


Source: OASIS

Lung Cancer: Mortality

CHD's lung cancer mortality rate of 36.4 per 100,000 is slightly lower than Georgia's rate of 37.1 per 100,000.

Figure 225: Age-Adjusted Lung Cancer Mortality Rates, by County, 2016-2020

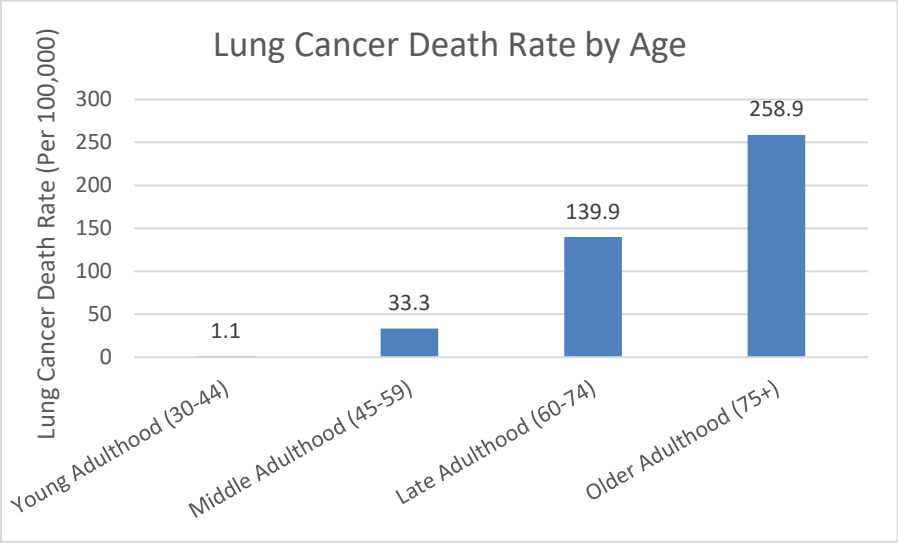


Source: OASIS

Lung Cancer: Mortality Demographics

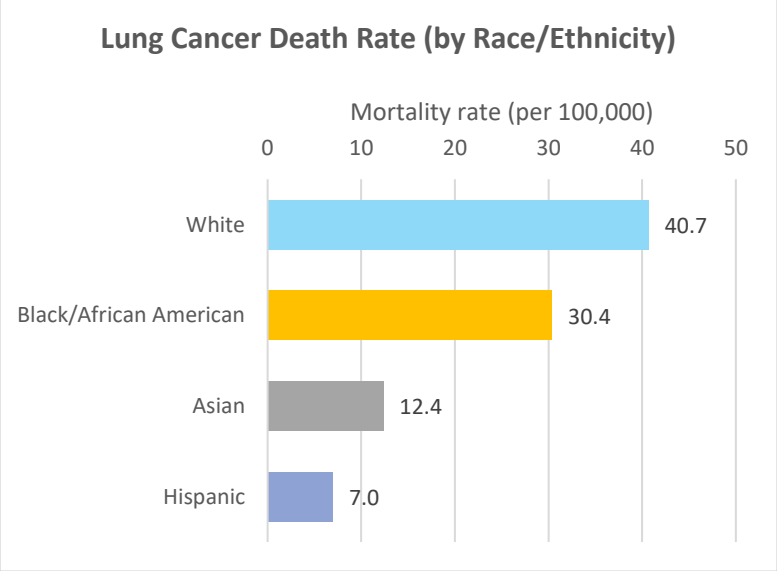
The figures below show the 2016-2020 Coastal Health District mortality (death) rate (per 100,000) from lung cancer broken down by age, race/ethnicity, and sex. Due to data suppression, mortality rates could not be presented for American Indians/Alaska Natives, Native Hawaiians/Pacific Islanders, or Multiracial individuals. Rates for 0–29-year-olds was 0.0 and thus not included in the graph. Lung cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), Whites, and males.

Figure 226: Lung Cancer Death Rates by Age, CHD, 2016-2020



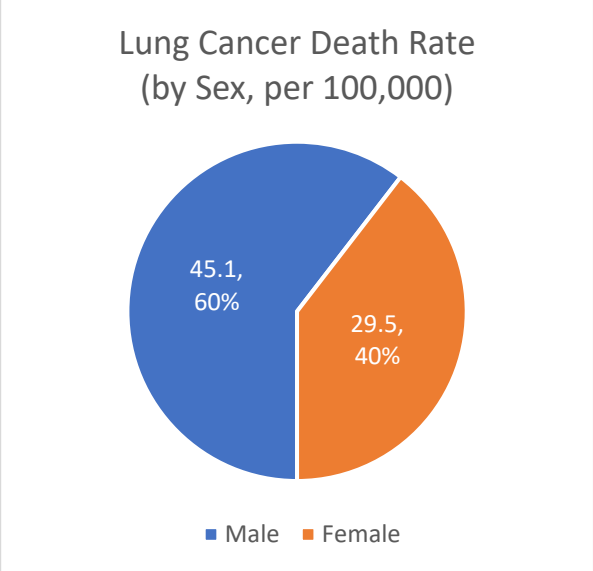
Source: OASIS

Figure 227: Age-Adjusted Lung Cancer Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Figure 228: Age-Adjusted Lung Cancer Death Rates by Sex, CHD, 2016-2020



Source: OASIS

Colorectal Cancer

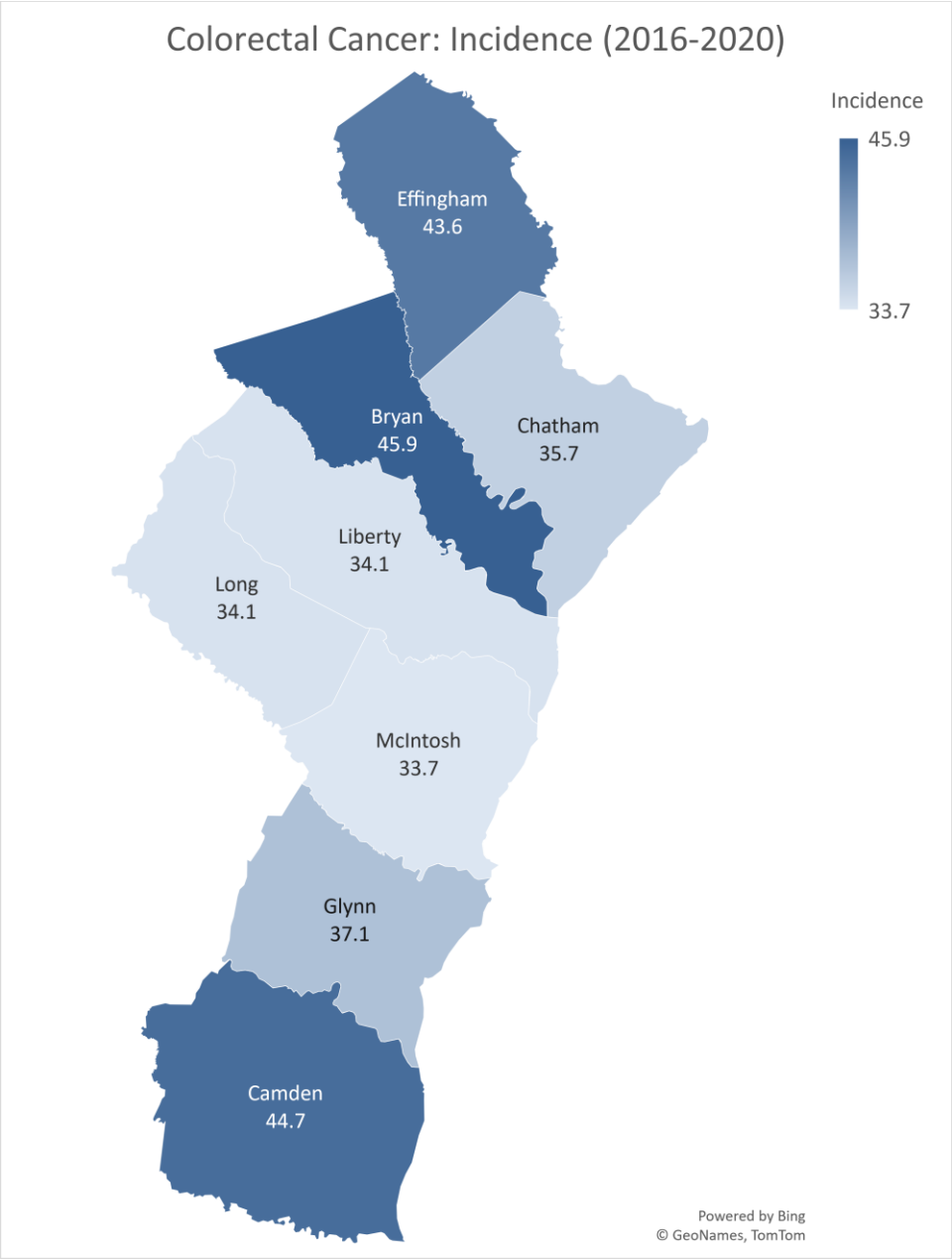
Colorectal cancer is cancer that develops in the tissues of the colon and/or rectum. Colorectal cancer affects both men and women and often occurs in people over 50 years of age [101]. The median age at diagnosis for colorectal cancer in the United States is 66-years-old for men and 69-years-old for women; however, the average age for rectal cancer diagnoses (early 60s) is slightly lower than colon cancer diagnoses (late 60s/early 70s) [102]. Furthermore, incidence rates have been increasing by 1% to 2% per year in people younger than 50 since the mid-1990s [103].

Risk factors for colorectal cancer include age; a personal or family history of colorectal polyps or colorectal cancer; a personal history of inflammatory bowel disease (IBD), such as ulcerative colitis or Crohn's disease; having a genetic predisposition through disorders such as Lynch syndrome or Familial Adenomatous Polyposis (FAP); being overweight/obese; lack of physical activity; diets high in red meats & processed meats and low in fruits, vegetables, and vitamin D; and heavy alcohol and tobacco use [101] [104].

Colorectal Cancer: Incidence

Colorectal cancer incidence rate in CHD counties ranged from 33.7 – 45.9 per 100,000, similar to CHD's average of 37.5 per 100,000 and Georgia's statewide average of 39.2 per 100,000.

Figure 229: Age-Adjusted Colorectal Cancer Incidence, by County, 2016–2020

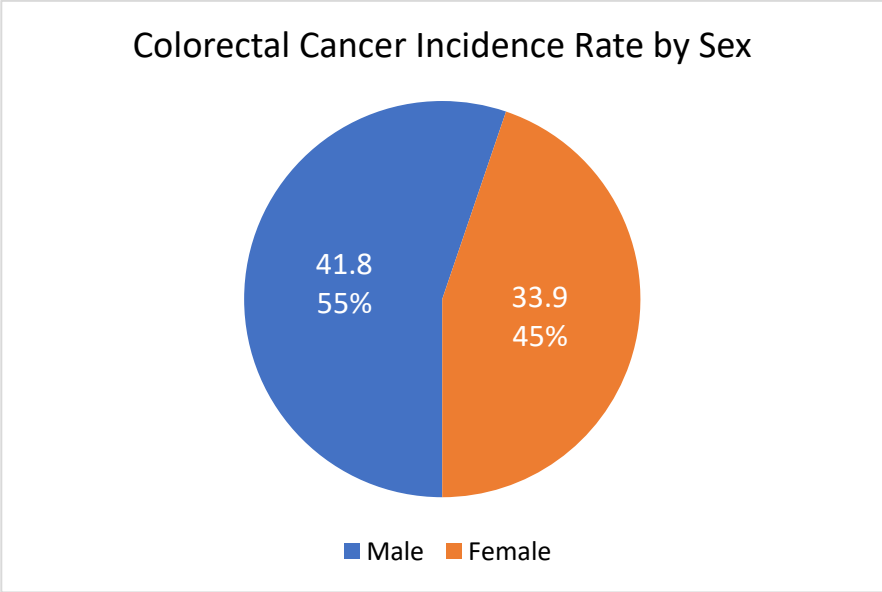


Source: DPH Cancer Incidence Rates

Colorectal Cancer Incidence: Demographics

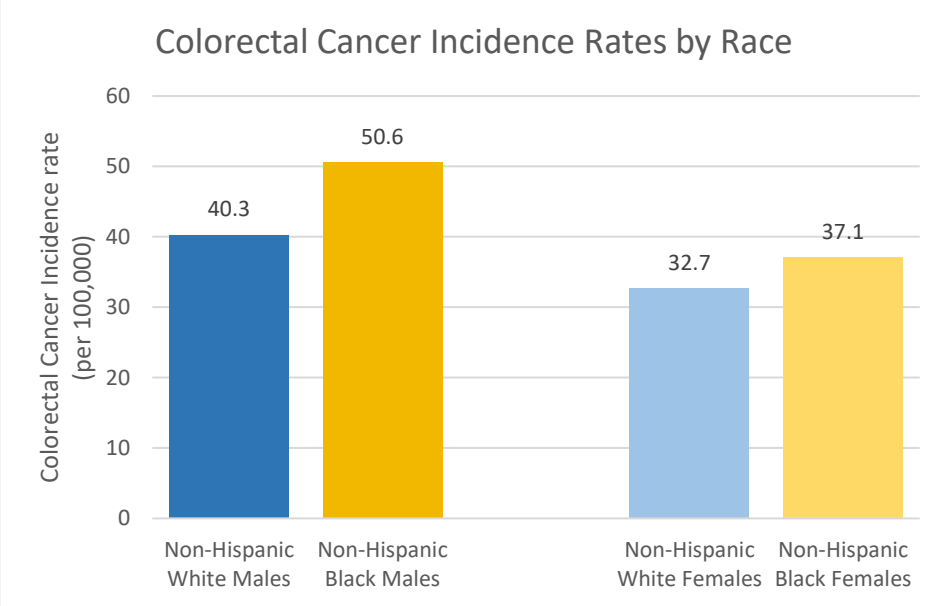
The figures below show colorectal cancer incidence rates from 2016–2020 broken down by sex and race. Colorectal cancer incidence rates (per 100,000) are highest non-Hispanic/Latino Black males.

Figure 230: Age-Adjusted Colorectal Cancer Incidence, by Sex, CHD, 2016-2020



Source: OASIS

Figure 231: Age-Adjusted Colorectal Cancer Incidence Rate by Sex & Race, CHD, 2016-2020



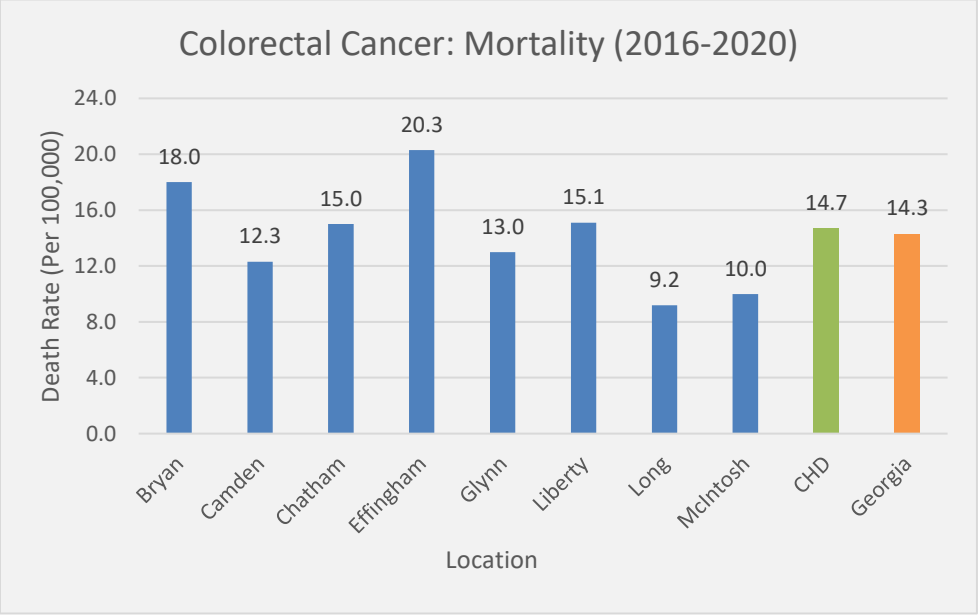
Source: OASIS

Colorectal Cancer: Mortality

CHD's colorectal mortality rate of 14.7 per 100,000 is higher than Georgia's rate of 14.3 per 100,000.

Of note, data used in this section is for colon, rectal, and anal cancer; however, anal cancer is rare, and its inclusion is unlikely to significantly affect the data.

Figure 232: Age-Adjusted Colorectal Cancer Mortality Rates, by County, 2016–2020

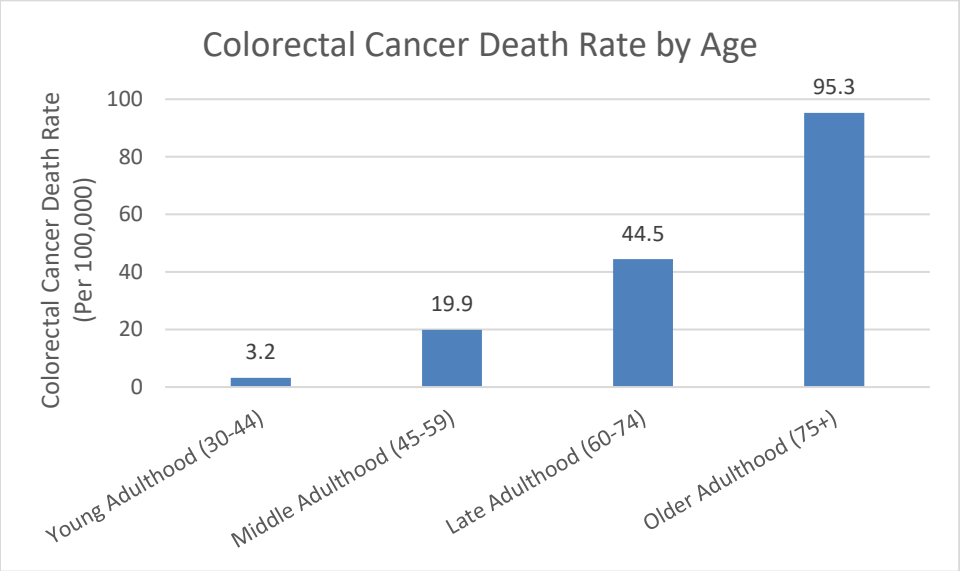


Source: OASIS

Colorectal Cancer: Mortality Demographics

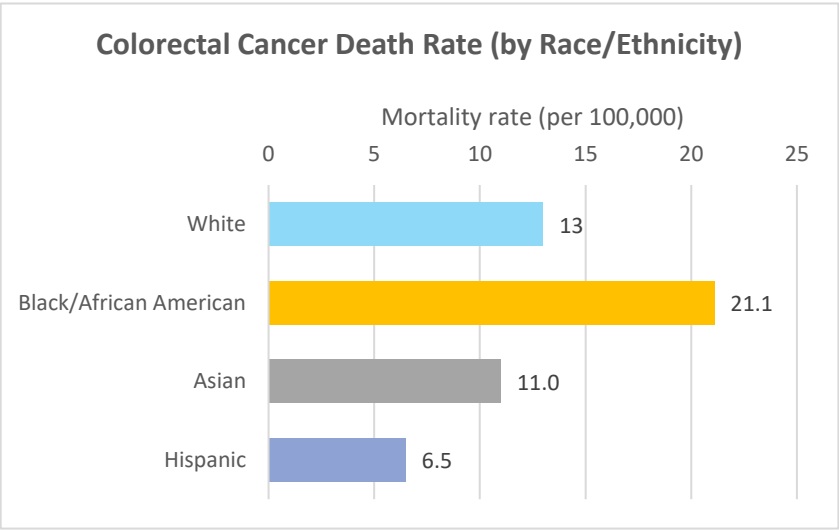
The figures below show the 2016-2020 Coastal Health District mortality (death) rate (per 100,000) from colorectal cancer broken down by age, race/ethnicity, and sex. Due to data suppression, mortality rates could not be presented for Asians or Multiracial individuals. Additionally, the death rates for 0-29 year-olds, American Indians/Alaska Natives, and Native Hawaiians/Pacific Islanders were 0.0 and thus not included in the graph. Colorectal cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), Black/African Americans, and males.

Figure 233: Colorectal Cancer Death Rates by Age, CHD, 2016-2020



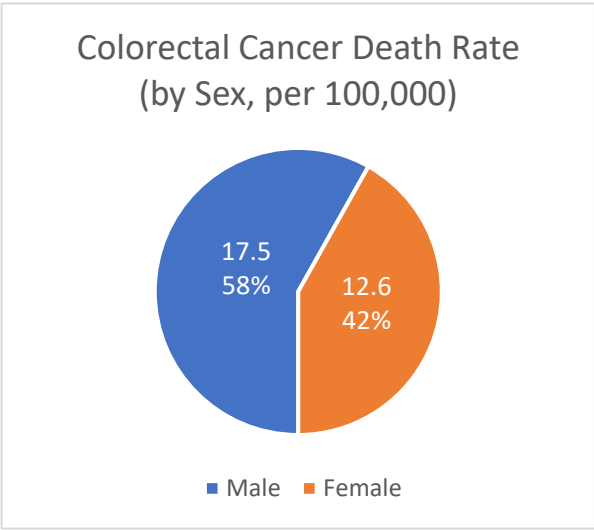
Source: OASIS

Figure 234: Colorectal Cancer Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Figure 235: Colorectal Cancer Death Rates by Sex, CHD, 2016-2020



Source: OASIS

Pancreatic Cancer

Pancreatic cancer is a type of cancer that begins in the pancreas, an organ in the abdomen next to the stomach and spleen [105]. Pancreatic cancer is most often found in older persons, with nearly all patients at least 45, but the majority being 65 and older; in fact, 70 is the average age at diagnosis [106]. Additionally, while only accounting for approximately 3% of all cancer diagnoses in the United States, pancreatic cancer is responsible for 7% of all cancer deaths [107]. The most common type of pancreatic cancer is pancreatic adenocarcinoma, accounting for 95% of exocrine pancreatic cancers [105]. Pancreatic neuroendocrine tumors (NETs), also known as islet cell tumors, are notably less common and constitute 2% of all pancreatic cancers; however, they often have a better prognosis [108].

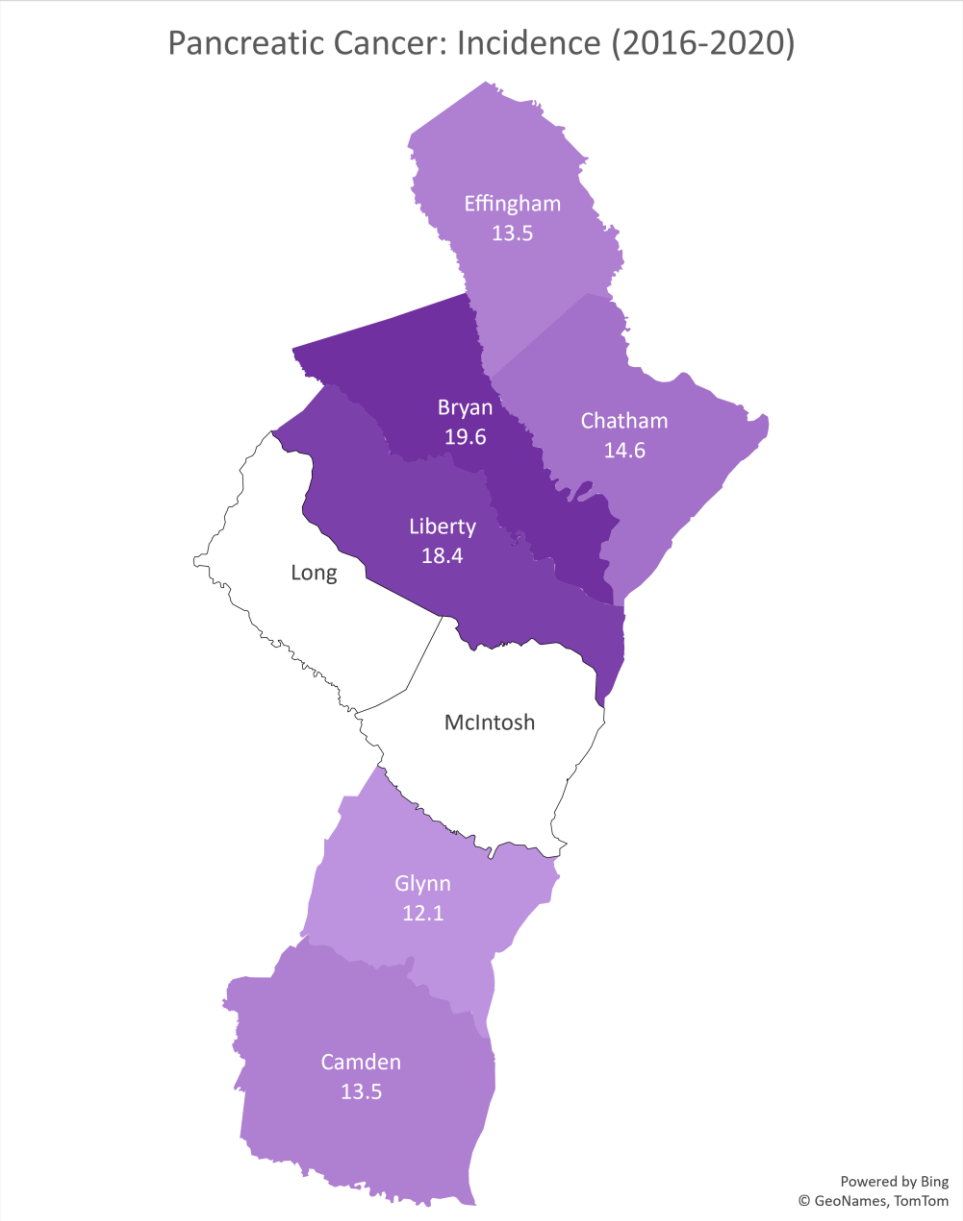
Cigarette smoking is also one of the most significant risk factors for pancreatic cancer, doubling the risk of developing the disease and accounting for approximately 25% of cases [106]. Obesity is also a substantial risk factor, increasing pancreatic cancer risk by 20%; however, research has shown that extra weight around the waistline increases risk even for individuals who are only moderately overweight. Other medical risk factors include personal history of diabetes (type 2) and chronic pancreatitis [106]. Exposure to certain chemicals in the workplace has also been shown to increase pancreatic cancer risk, specifically those used in dry cleaning and metal working industries. Other general risk factors include older age, gender (male), race (African American), family history of pancreatic cancer, and certain inherited genetic mutations [106].

Pancreatic Cancer Incidence

According to State Cancer Profiles 2020 5-year averages, pancreatic cancer incidence rate in CHD counties ranged from 12.1 – 19.6 per 100,000, with only Glynn County lower than Georgia's statewide average of 13.0 per 100,000. Due to data suppression, rates are not given for Long County and McIntosh County.

District-level data, including demographics (sex and race), for pancreatic cancer incidence were not available during the creation of this report.

Figure 236: Age-Adjusted Pancreatic Cancer Incidence, by County, 2016-2020

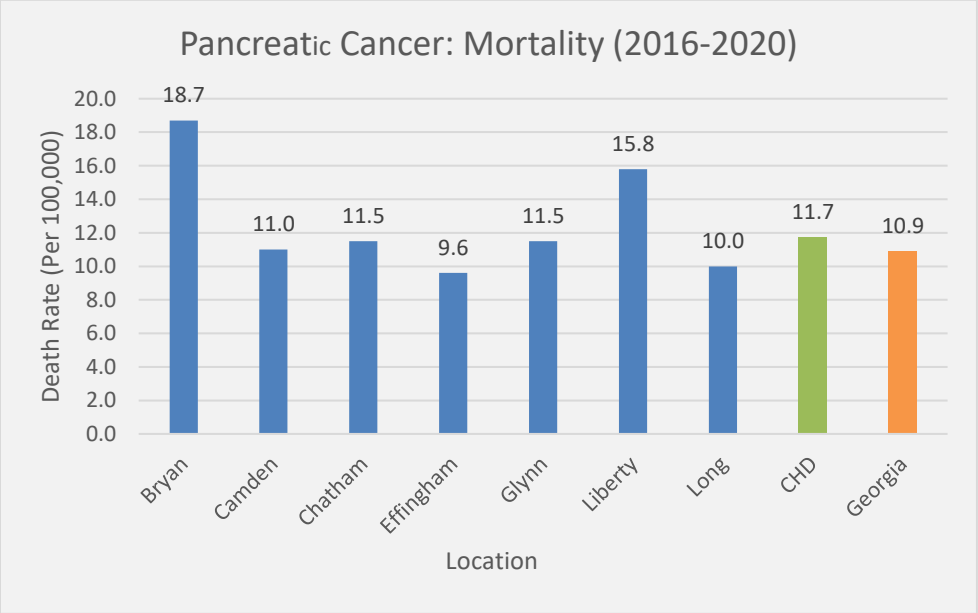


Source: State Cancer Profiles

Pancreatic Cancer: Mortality

CHD's pancreatic cancer mortality rate of 11.7 per 100,000 is higher than Georgia's rate of 10.9 per 100,000. Of note, Liberty County and Bryan County pancreatic cancer mortality rates are respectively approximately 1.4 times and 1.6 times higher than the CHD and Georgia rates.

Figure 237: Age-Adjusted Pancreatic Cancer Mortality Rates, by County, 2016-2020

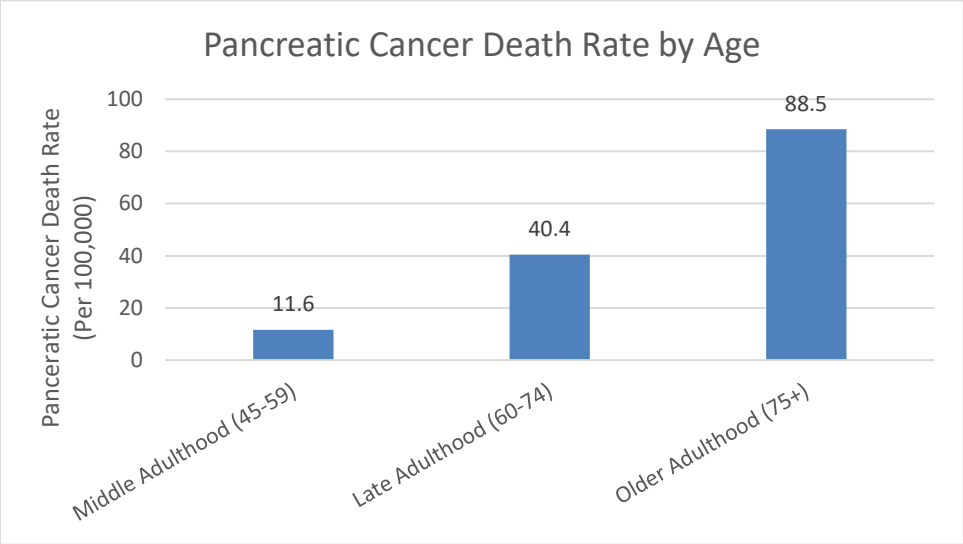


Source: OASIS

Pancreatic Cancer: Mortality Demographics

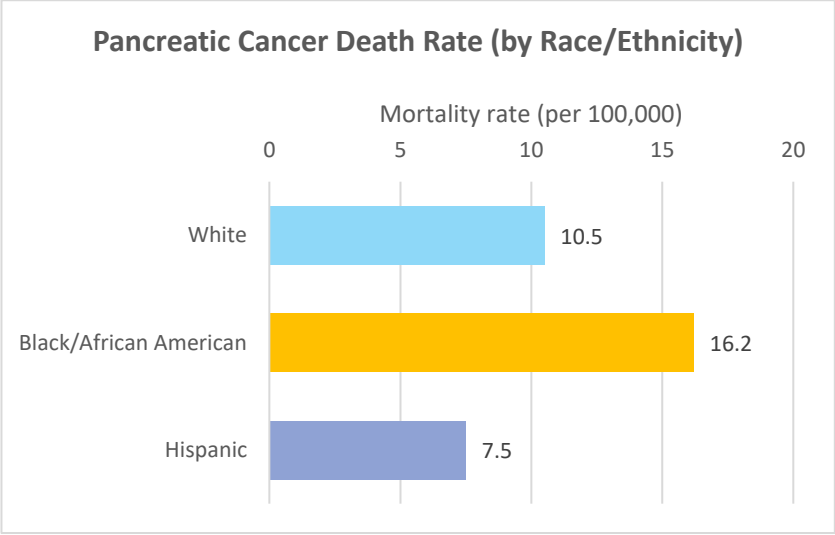
The figures below show the 2016-2020 Coastal Health District mortality (death) rate (per 100,000) from pancreatic cancer broken down by age, race/ethnicity, and sex. Due to data suppression, mortality rates could not be presented for young adults (30–44-year-olds), Asians, or Multiracial individuals. Additionally, the death rates for 0–29-year-olds, American Indians/Alaska Natives, and Native Hawaiians/Pacific Islanders were 0.0 and thus were not included in the graph. Pancreatic cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), Black/African Americans, and males.

Figure 238: Pancreatic Cancer Death Rates by Age, CHD, 2016-2020



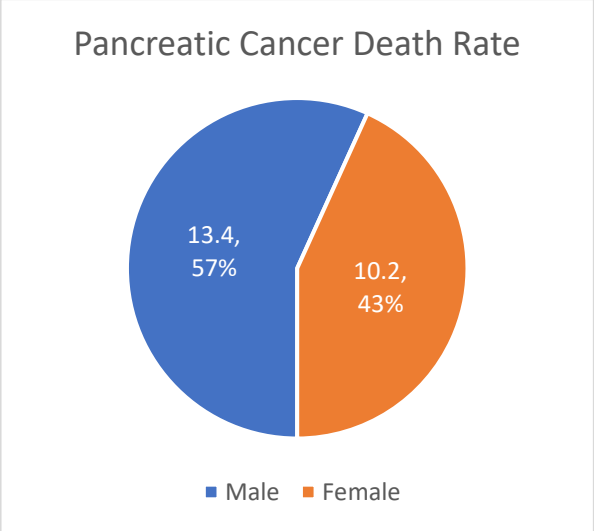
Source: OASIS

Figure 239: Pancreatic Cancer Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Figure 240: Pancreatic Cancer Death Rates by Sex, CHD, 2016-2020



Source: OASIS

Breast Cancer

Breast cancer is a disease in which malignant cells form in the tissues of the breast. There are several types of breast cancer, which may involve the lobules (the glands that produce milk), the ducts (which carry milk to the nipple), the nipples, fatty & connective tissue, and/or blood & lymph vessels [109].

Breast cancer is the most common cancer among women in the United States, excluding skin cancers. Breast cancer accounts for about 30% of all new cancers in women annually; this means that approximately 1 in 3 new female cancer cases will be attributed to breast cancer alone. Throughout a woman's lifetime, her risk of developing breast cancer averages about 13%, about a 1 in 8 chance. [109] Men can also get breast cancer; however, with a lifetime risk of 1 in 833, it is significantly more rare [110].

Breast cancer typically occurs in middle-aged and older women, with the median age at diagnosis being 62 years old; however, this age is slightly younger in Black women compared to White women (60 vs. 64 years old, respectively) [109].

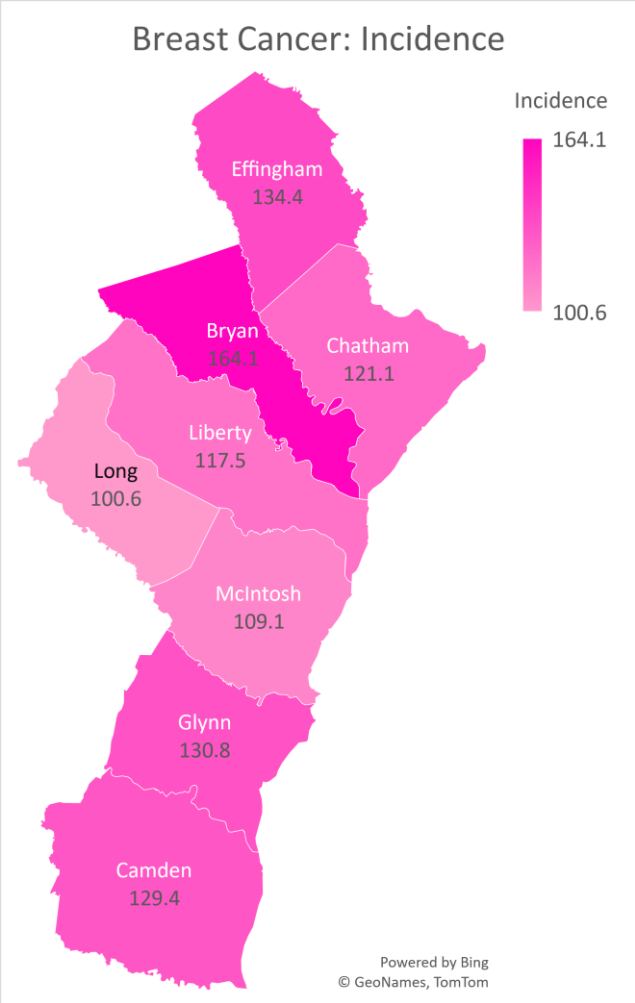
Risk factors for breast cancer include being biologically female (assigned female at birth); age; having dense breast tissue; inherited BRCA1 and/or BRCA2 genetic mutations; a family history of breast cancer in a parent or sibling (of either gender), or in a daughter; a personal history of breast cancer or certain non-cancerous breast diseases, including atypical ductal hyperplasia or lobular carcinoma in situ; increased lifetime exposure to the hormones estrogen and progesterone, typically by starting menstruation before age 12 and/or not beginning menopause until after age 55; previous exposure to radiation therapy to the chest and/or breasts for another cancer; and exposure to diethylstilbestrol (DES), either during pregnancy or *in vitro* [111].

Other general risk factors for breast cancer include regular alcohol consumption; being overweight/obese; lack of physical activity; having the first pregnancy after age 30 or never having a full-term pregnancy; not breastfeeding; use of hormonal birth control and some forms of hormone replacement therapy; and having breast implants [111] [112].

Breast Cancer Incidence

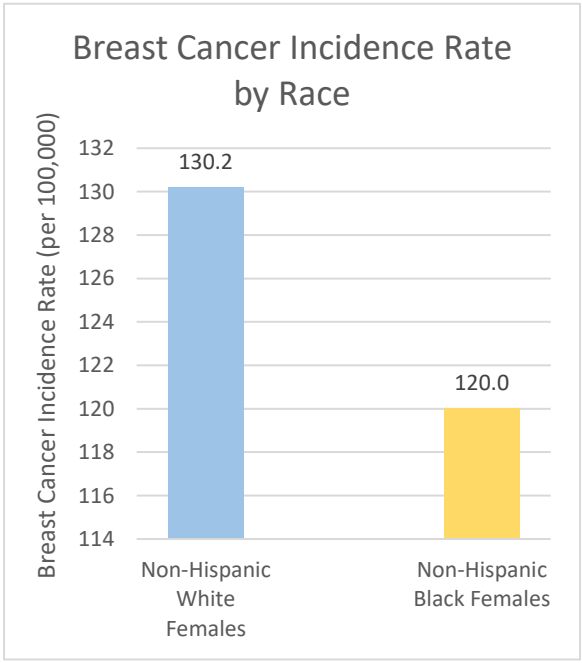
Breast cancer incidence rate (per 100,000) in CHD counties ranged from 100.6 – 164.1, similar to CHD's average of 125.9 per 100,000 and Georgia's statewide average of 129.0 per 100,000. Breast cancer incidence rates were higher in non-Hispanic/Latino White females compared to non-Hispanic/Latino Black females.

Figure 241: Age-Adjusted Breast Cancer Incidence Rate, by County, 2016-2020



Source: DPH Cancer Incidence Rates

Figure 242: Age-Adjusted Breast Cancer Incidence Rate by Race, CHD, 2016-2020

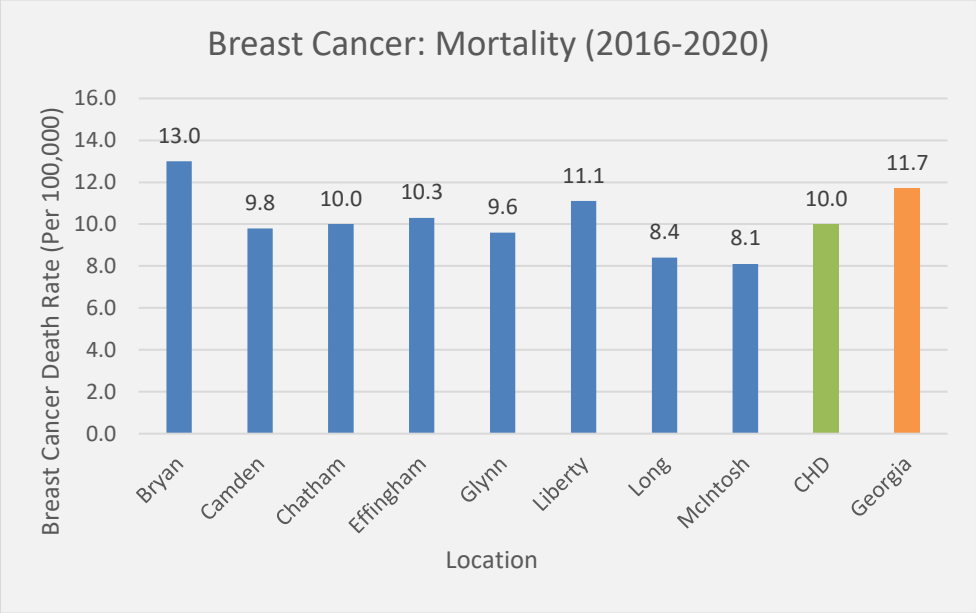


Source: OASIS

Breast Cancer: Mortality

CHD's breast cancer mortality rate of 10.0 per 100,000 is higher than Georgia's rate of 11.7 per 100,000. Of note, only Bryan County's breast cancer mortality rate exceeded both CHD and Georgia rates.

Figure 243: Age-Adjusted Breast Cancer Mortality Rates, by County, 2016-2020

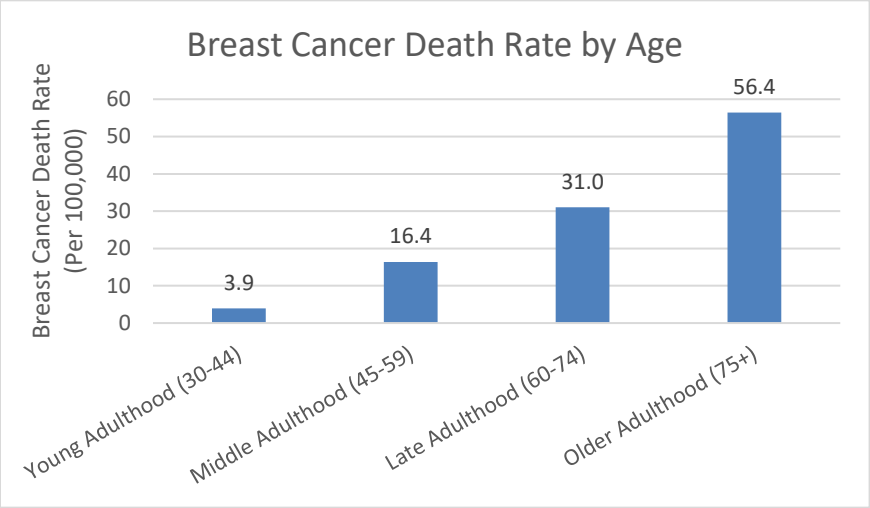


Source: OASIS

Breast Cancer: Mortality Demographics

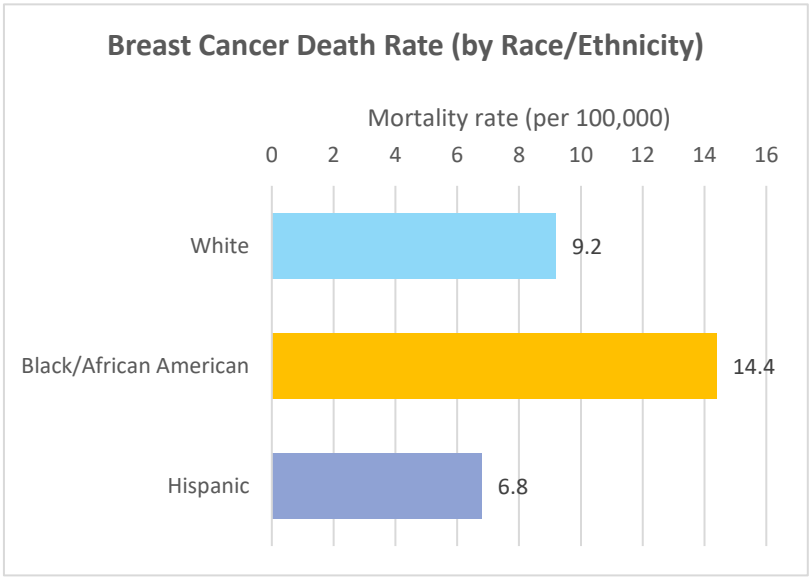
The figures below show the 2016-2020 Coastal Health District mortality (death) rate (per 100,000) from breast cancer broken down by age, race/ethnicity, and sex. Due to data suppression, mortality rates could not be presented for Asians or Multiracial individuals. Rates for 0–29-year-olds, American Indians/Alaska Natives, and Native Hawaiians/Pacific Islanders were 0.0 and thus were not included in the graph. Breast cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), Black/African Americans, and females.

Figure 244: Breast Cancer Death Rates by Age, CHD, 2016-2020



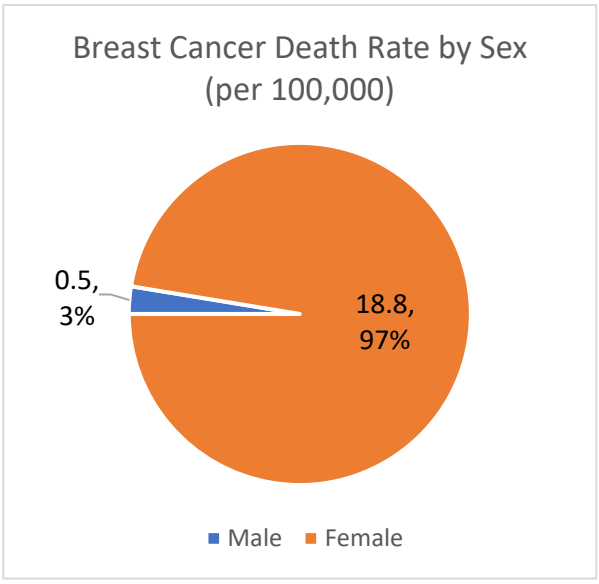
Source: OASIS

Figure 245: Age-Adjusted Breast Cancer Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Figure 246: Age-Adjusted Breast Cancer Death Rates by Sex, CHD, 2016-2020



Source: OASIS

Prostate Cancer

Prostate cancer begins when cells in the prostate gland, which is only found in males, begin to grow uncontrollably [113]. The size of the prostate increases with age, leading to an increased risk of prostate cancer in older males [113]. The average age at diagnosis is 67-years-old, with the majority of all diagnosed cases being in men at least 65 years of age [114]. Nearly all types of prostate cancers are adenocarcinomas; other possible types, such as small cell carcinoma, traditional cell carcinoma, sarcomas, etc. are possible but significantly more rare. [113].

About 13 out of every 100 (1 out of 8) men in the United States will develop prostate cancer [115] [114]. Since 2014, prostate cancer incidence has increased annually by 3% for any stage, and by 5% for advanced stages [114]. However, most prostate cancers grow slowly, with over 96% of men still alive five years after diagnosis [116]. Nevertheless, prostate cancer is one of the leading causes of cancer-related deaths in the United States, second only to lung cancer, and overall accounting for 1 in 43 deaths in men (from any cause) [114].

Risk factors for developing prostate cancer are older age; a family history of prostate cancer in a parent or sibling, or in a son; certain inherited genetic mutations and related conditions, including Lynch syndrome, BRCA1 and/or BRCA2 mutations, and other gene variants that increase the risk of breast, ovarian, and prostate cancer [114] [115].

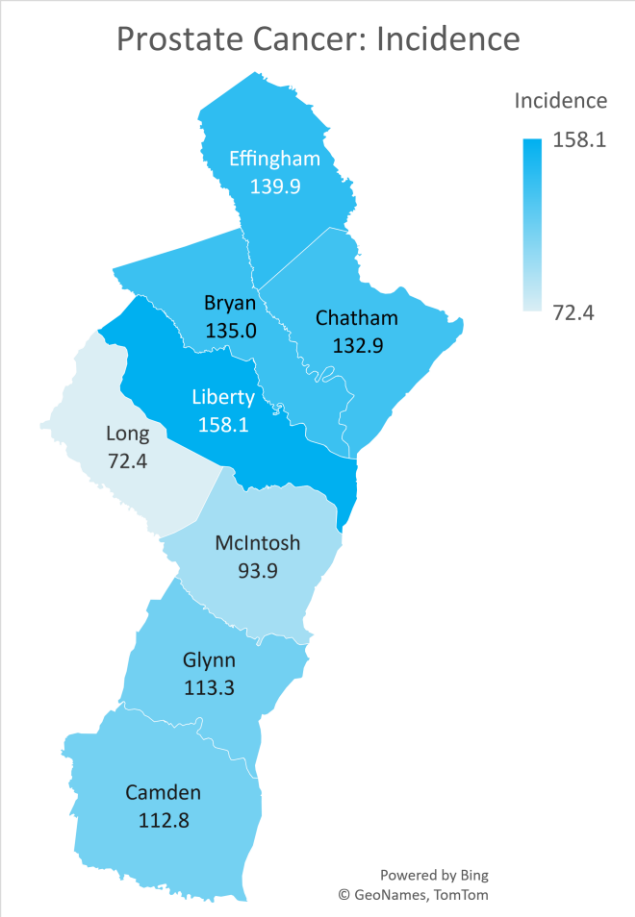
Race is also a significant risk factor for prostate cancer, with Black/African American men and Caribbean men of African ancestry having a significantly higher risk of developing the disease, as well as being twice as likely to die from it [114] [115]. Furthermore, men from both groups are more likely to develop prostate cancer at a younger age than average and are often diagnosed at later stages [115].

There are also other factors that may increase the risk of prostate cancer; however, more research is needed to prove a definite link. These include the consumption of large amounts of dairy products regularly; exposure to certain chemicals including arsenic, and certain firefighting chemicals; and obesity, specifically relating to a slightly higher risk for developing more aggressive forms of prostate cancer [117].

Prostate Cancer Incidence

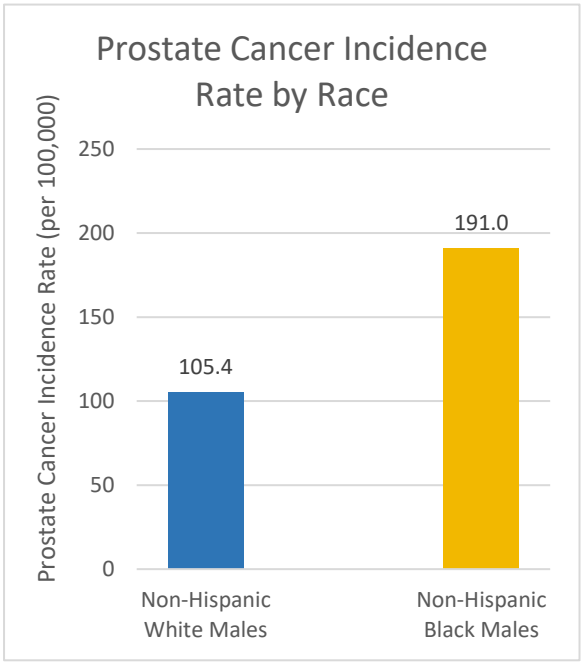
Prostate cancer incidence rate in CHD counties ranged from 72.4 – 158.1 per 100,000, similar to CHD's average of 126.9 per 100,000 and Georgia's statewide average of 134.2 per 100,000. Prostate cancer incidence rates were also higher in non-Hispanic/Latino Black males compared to non-Hispanic/Latino White males.

Figure 247: Age-Adjusted Prostate Cancer Incidence, by County, 2016-2020



Source: DPH Cancer Incidence Rates

Figure 248: Age-Adjusted Prostate Cancer Incidence, by Race, CHD, 2016-2020

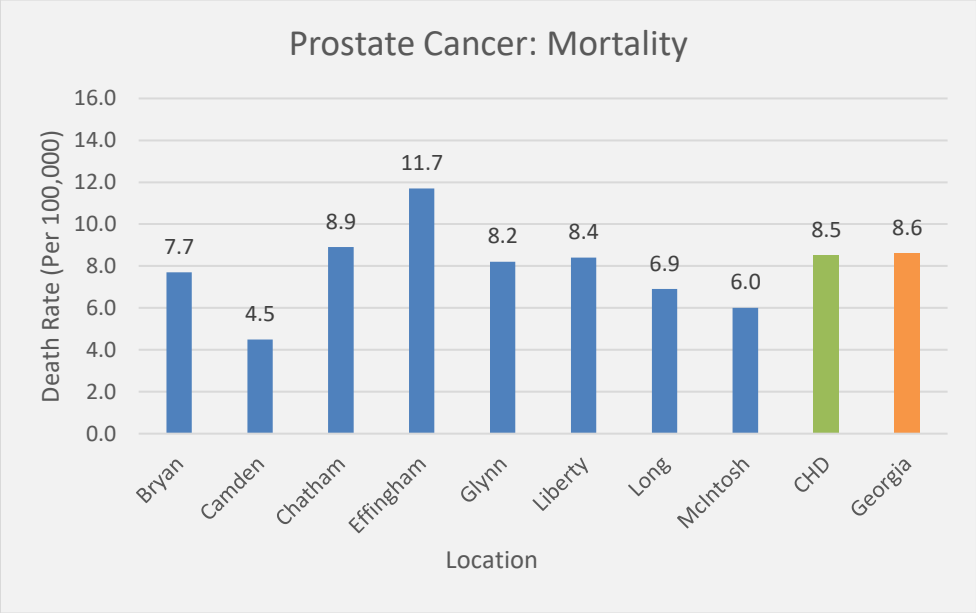


Source: OASIS

Prostate Cancer: Mortality

CHD's prostate cancer mortality rate of 8.5 per 100,000 is nearly identical to Georgia's rate of 8.6 per 100,000. Of note, only Effingham and Chatham Counties' prostate cancer mortality rates exceeded both CHD and Georgia rates.

Figure 249: Age-Adjusted Prostate Cancer Mortality Rates, by County, 2016-2020

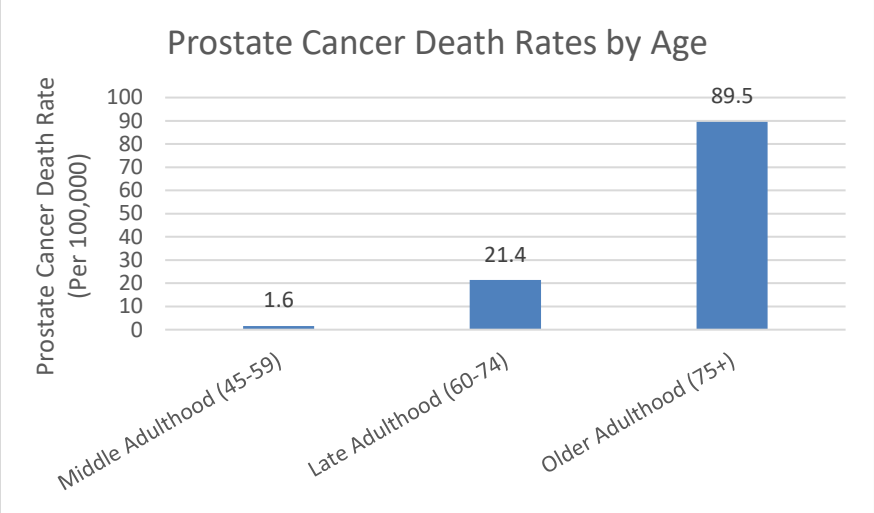


Source: OASIS

Prostate Cancer: Mortality Demographics

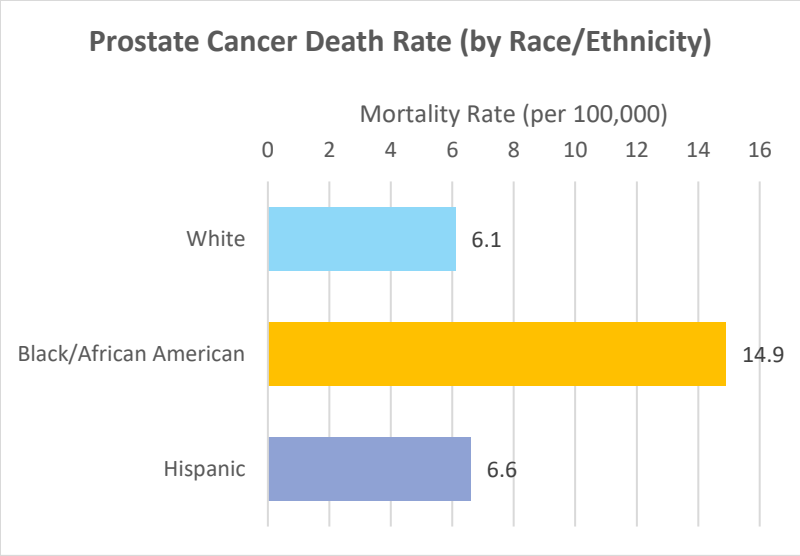
The figures below show the 2016-2020 Coastal Health District death rate (per 100,000) from prostate cancer broken down by age and race/ethnicity. Due to data suppression, mortality rates could not be presented for young adults (30–44-year-olds). Rates for 0–29-year-olds, Asians, American Indians/Alaska Natives, Native Hawaiians/Pacific Islanders and Multiracial individuals were 0.0 and thus were not included in the graph. Prostate cancer mortality rates are highest in the following subpopulations: elderly people (75+ year-olds), and Black/African Americans.

Figure 250: Prostate Cancer Death Rates by Age, CHD, 2016-2020



Source: OASIS

Figure 251: Age-Adjusted Prostate Cancer Death Rates by Race/Ethnicity, CHD, 2016-2020



Source: OASIS

Mortality

Leading Causes of Death

As defined by both the CDC and the World Health Organization, cause of death is “the disease or injury that initiated the sequence of events leading directly to death or as the circumstances of the accident or violence that produced the fatal injury” [118] [119]. Mortality rate is a measurable way to compare the top causes of death in one population to another. Awareness of the most common causes of death in a specific community helps determine what types of disease prevention efforts should be prioritized. The top ten causes of death are listed in the following mortality table. Mortality rates in this section are age-adjusted, per 100,000 people, for the year 2021.

The following tables show the leading causes of death in the United States, the State of Georgia, and the Coastal Health District. As indicated below, in 2021, the top 3 leading causes of death in all three locations were heart disease, cancer, and COVID-19. Chronic diseases are also major causes of disability and significant contributors to increases in health care costs in the U.S.

The 10 Leading Causes of Death

(based on the National Center for Health Statistics)

	Coastal Health District 2021	Georgia 2021	United States 2021
1	Diseases of Heart	Diseases of Heart	Heart disease
2	Malignant Neoplasms	Malignant Neoplasms	Malignant neoplasms (Cancer)
3	COVID-19	COVID-19	COVID-19
4	Unintentional Injuries	Unintentional Injuries	Unintentional injuries
5	Chronic Lower Respiratory Diseases (CLRD)	Cerebrovascular Diseases	Cerebrovascular disease (Stroke)
6	Cerebrovascular Diseases	Alzheimer's Disease	Chronic lower respiratory diseases
7	Alzheimer's Disease	Chronic Lower Respiratory Diseases (CLRD)	Alzheimer's disease
8	Diabetes Mellitus	Diabetes Mellitus	Diabetes mellitus
9	Essential (Primary) Hypertension and Hypertensive Renal Disease	Nephritis, Nephrotic Syndrome, and Nephrosis	Chronic liver disease and Cirrhosis
10	Septicemia	Septicemia	Kidney disease

Source: United States data: Centers for Disease Control and Prevention;
Georgia and CHD Data: OASIS, GA Department of Public Health

The 10 Leading Causes of Death in Coastal Health District
(by Race/Ethnicity, CHD, 2018-2022)

(based on Georgia Rankable Causes)

(*Asian, American Indians/Alaska Native, Native Hawaiian/Pacific Islander, and Multiracial were not included in chart as for each racial group rates were based on 1-4 events, and thus suppressed due to confidentiality concerns)

	White (non-Hispanic/Latino)	Black/African American (non-Hispanic/Latino)	Hispanic/Latino (of any race)
1	COVID-19	COVID-19	COVID-19
2	Ischemic Heart and Vascular Disease	Ischemic Heart and Vascular Disease	Alzheimer's Disease
3	All COPD Except Asthma	Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease	Ischemic Heart and Vascular Disease
4	Alzheimer's Disease	Cerebrovascular Disease	Cerebrovascular Disease
5	Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease	Diabetes Mellitus	All COPD Except Asthma
6	Cerebrovascular Disease	Alzheimer's Disease	Malignant Neoplasms of Colon, Rectum, and Anus
7	Malignant Neoplasms of the Trachea, Bronchus, and Lung	All COPD Except Asthma	Intentional Self-Harm (Suicide)
8	Accidental Poisoning and Exposure to Noxious Substances	Nephritis, Nephrotic Syndrome, and Nephrosis	Motor Vehicle Crashes
9	All Other Diseases of the Nervous System	All Other Diseases of the Nervous System	
10	All Other Mental and Behavioral Disorders	All Other Mental and Behavioral Disorders	

Source: OASIS

The 10 Leading Causes of Death in Coastal Health District (by Sex)
(based on the Georgia Rankable Causes)

	Male (2021)	Female (2021)
1	COVID-19	COVID-19
2	Ischemic Heart and Vascular Disease	Ischemic Heart and Vascular Disease
3	Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease	Alzheimer's Disease
4	All COPD Except Asthma	All COPD Except Asthma
5	Cerebrovascular Disease	Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease
6	Malignant Neoplasms of the Trachea, Bronchus, and Lung	Cerebrovascular Disease
7	Alzheimer's Disease	All Other Mental and Behavioral Disorders
8	Accidental Poisoning and Exposure to Noxious Substances	Malignant Neoplasms of the Trachea, Bronchus, and Lung
9	All Other Diseases of the Nervous System	All Other Diseases of the Nervous System
10	Diabetes Mellitus	Diabetes Mellitus

Source: OASIS

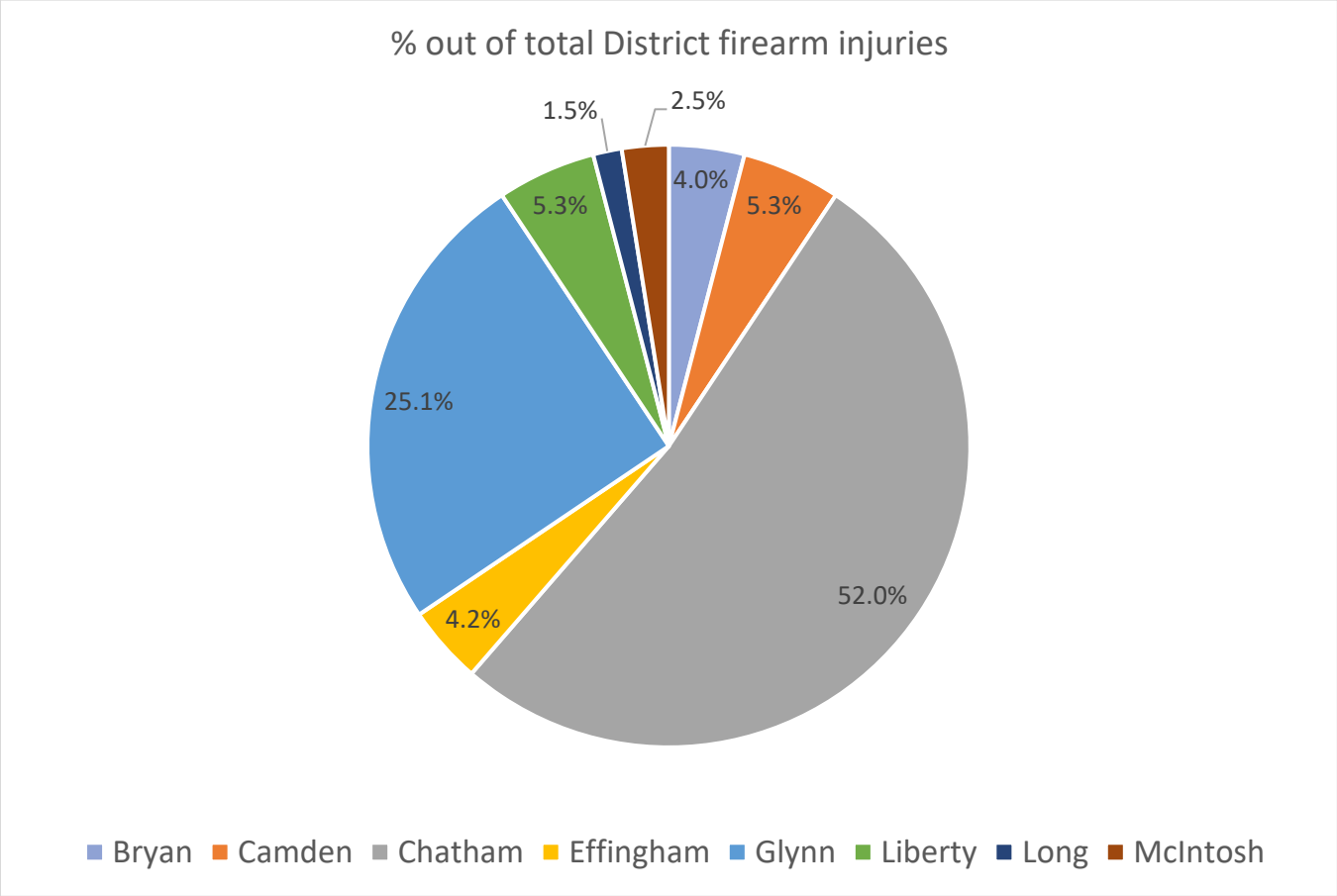
External Causes of Injury & Death

External causes of deaths are any manner of death that originates from an external force [120]. Examples of external causes of deaths are motor vehicle crashes (MVCs), falls, accidental shootings, drowning, fire & smoke exposure, suffocation, homicide, and legal intervention. The top 6 causes of external death in both the CHD and Georgia are poisonings, suicide (2nd for district, 3rd for GA), motor vehicle crashes (3rd for district, 2nd for GA), homicide, falls, and all other unintentional injury [3]. Poisoning is another type of external cause of death; however, it is not included in this section as 89% are due to drug overdoses, which has its own subsection. Similarly, while suicide is also considered an external cause of death, it will not be examined in this section as it was previously discussed in the mental health section.

Firearms-related Injuries

According to the Firearm Injury Surveillance Through Emergency Room Visit: Georgia Approach Dashboard (FASTER-GA), between January 2020 and March 2023, Chatham County accounted for slightly more than half of all firearm-related injuries in the Coastal Health District. Glynn County accounted for another 25%; with the remaining six counties constituting the final quarter.

Figure 252: Percentage of Firearms-related injuries in CHD by County, 01/2020 - 03/2023

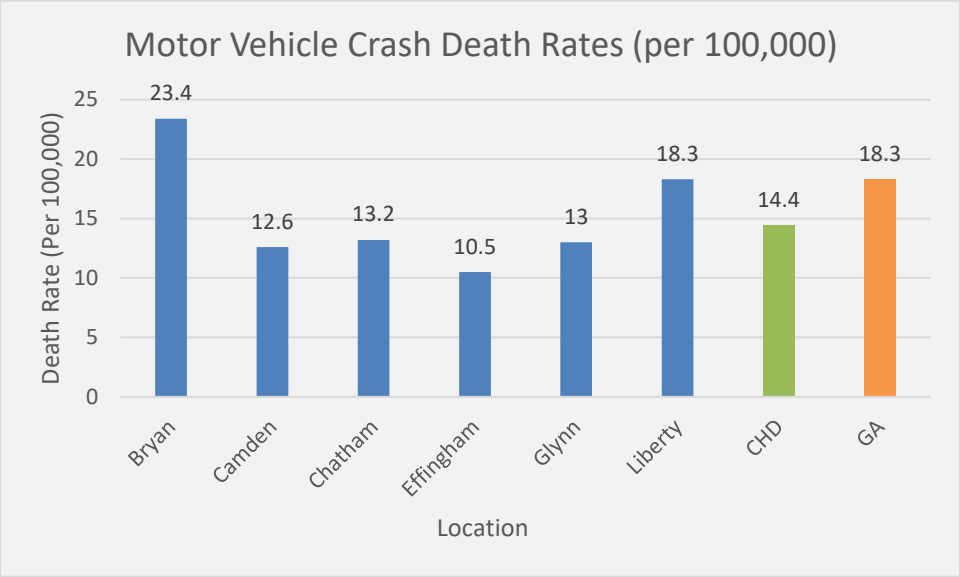


Source: FASTER-GA Dashboard

Motor Vehicle Crashes

Motor vehicle crashes consist of accidents involving cars, trucks, motorcycles, or any other motorized vehicle [120]. Motor vehicle accidents injuring pedestrians and bicyclists are also included. [120] CHD's age-adjusted motor vehicle crash death rate of 14.4 per 100,000 is lower than Georgia's rate of 18.3 per 100,000. Long County and McIntosh County were not included in the graph due to data suppression.

Figure 253: Age-Adjusted Motor Vehicle Crash Death Rates, by County, 2018-2022

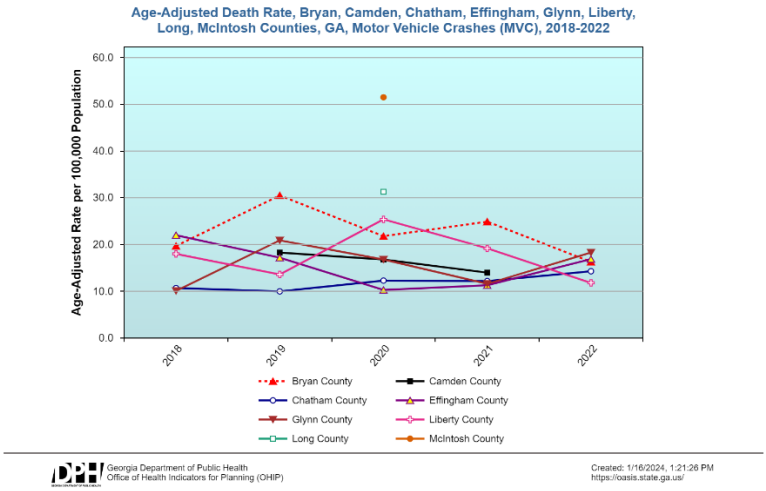


Source: OASIS

Motor Vehicle Crashes Death Rate: 5-Year Trends

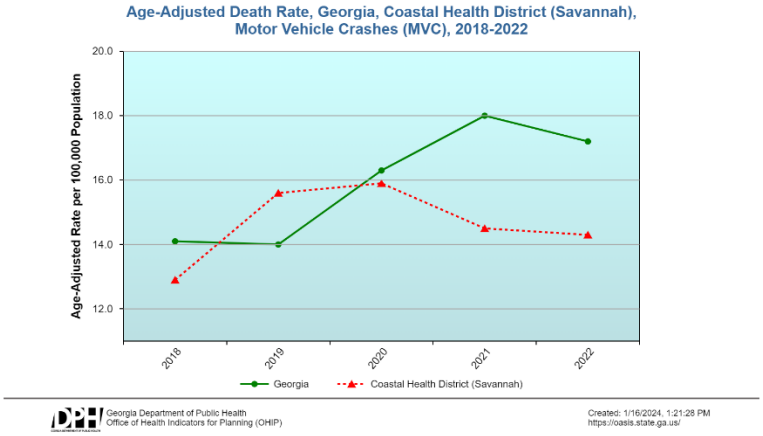
The figures below show trend lines for age-adjusted death rates from motor vehicle crashes (per 100,000) across the 5-year period of 2018-2022 at county, district, and state-level. Several counties do not have death rates listed for certain years due to data suppression, including 4 out of 5 of both Long and McIntosh Counties' years. Both Chatham County and Glynn County show a continuing upward trend across the majority of the 5-year period; Chatham County also began an upward trend from 2020-2022. Regarding the CHD and Georgia, the district showed increasing fatal crashes from 2018-2020 followed by decreasing rates from 2020-2022; while the state showed a steep increase in rates from 2019-2021, with a drop following that year. Locations showing overall increasing motor vehicle crash death rates across the 5-year period are Bryan & Chatham Counties, and Georgia.

Figure 254: Age-Adjusted Death Rates from Motor Vehicle Crashes, 5-year trends, by County, 2018-2022



Source: OASIS

Figure 255: Age-Adjusted Death Rates from Motor Vehicle Crashes, 5-year trends, CHD & GA, 2018-2022

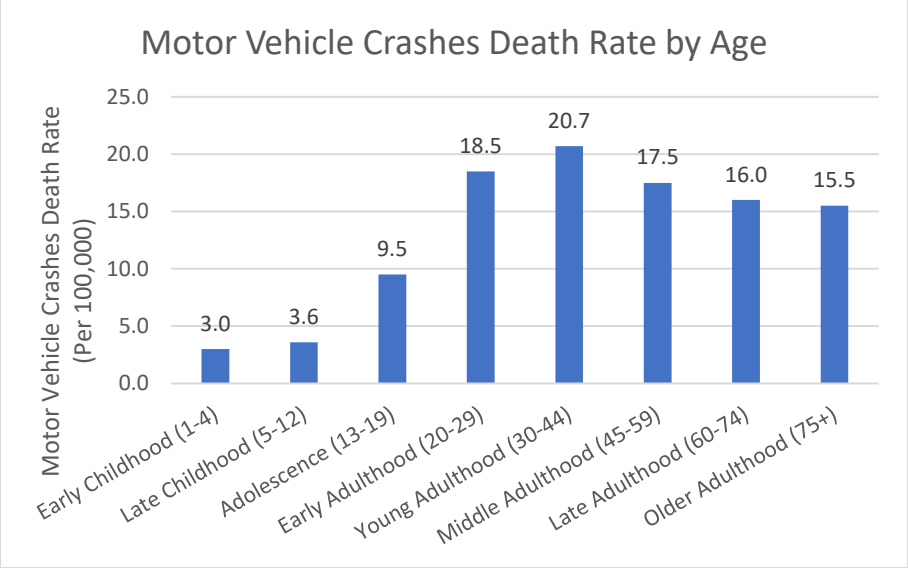


Source: OASIS

Motor Vehicle Crashes Death Rate: Demographics

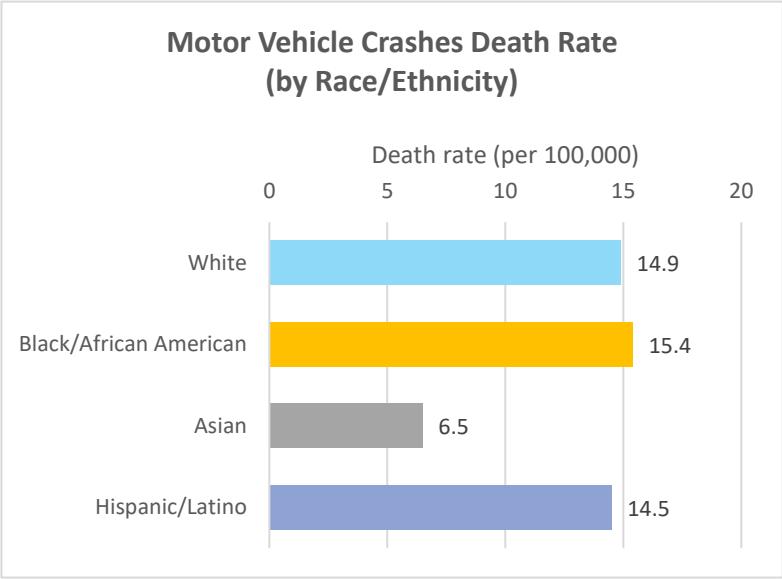
The figures below show the CHD 2018-2022 motor vehicle crash death rate (per 100,000) broken down by age and race/ethnicity. Due to data suppression, motor vehicle crash death rates could not be presented for American Indians/Alaska Natives or Native Hawaiians/Pacific Islanders. Rates for children under 1 were 0.0, and thus was also included in the following graph. Motor Vehicle Crashes Death rates are highest in the following subpopulations: young adults (30–44-year-olds), Black/African Americans, and males.

Figure 256: Motor Vehicle Crashes Death Rate by Age, CHD, 2018-2022



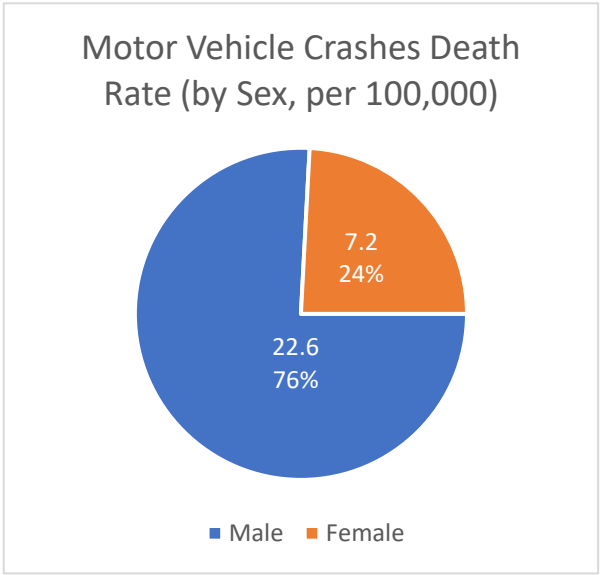
Source: OASIS

Figure 257: Age-Adjusted Motor Vehicle Crashes Death Rate by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 258: Age-Adjusted Motor Vehicle Crashes Death Rate by Sex, CHD, 2018-2022

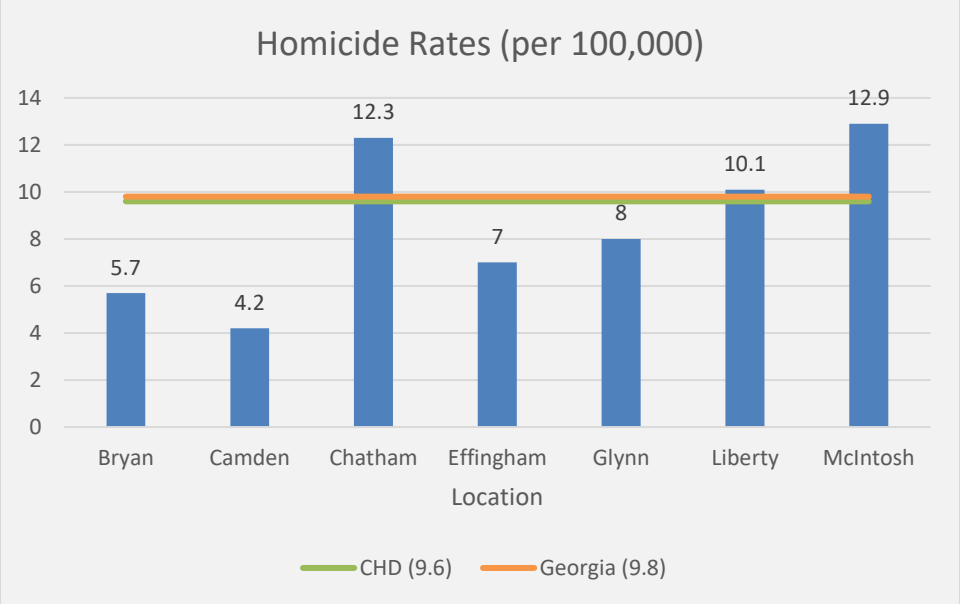


Source: OASIS

Homicide

While homicide, one human being killing another, can also take several different forms, the most common manner is through the use of a firearm, accounting for 81% of deaths [120]. CHD's age-adjusted homicide death rate of 9.6 per 100,000 is just below Georgia's rate of 9.8 per 100,000. Due to data suppression, Long County was not included in the graph.

Figure 259: Age-Adjusted Homicide Death Rates, by County, 2018-2022

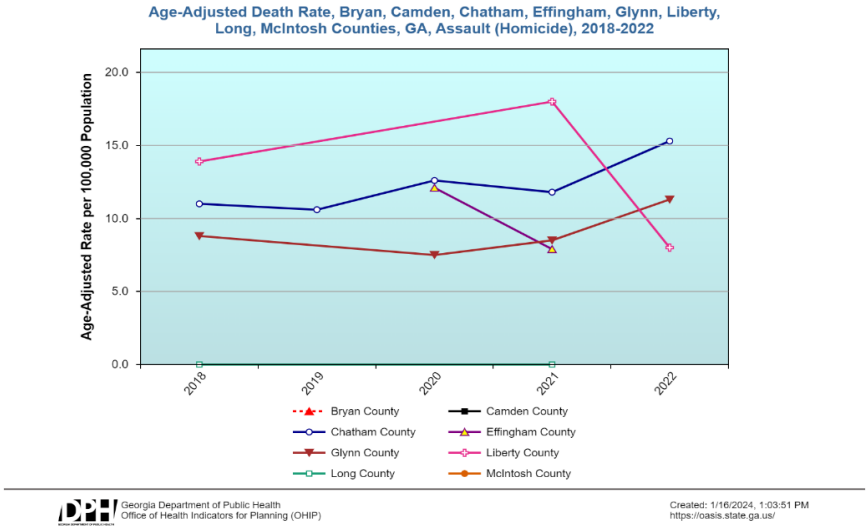


Source: OASIS

Homicide Rate: 5-Year Trends

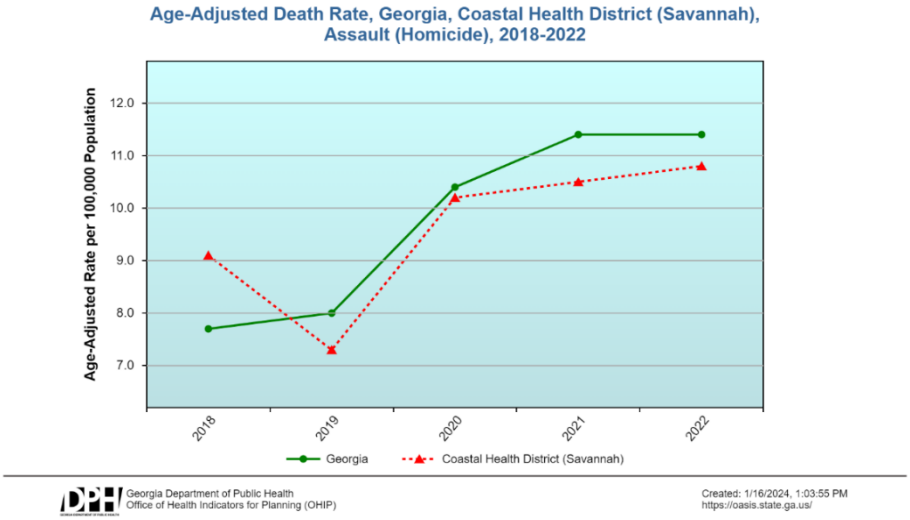
The figures below show trend lines for age-adjusted death rates from homicides (per 100,000) across the 5-year period of 2018-2022 at county, district, and state-level. Several counties do not have death rates listed for certain years due to data suppression. When examining only the counties with at least three years of plottable data (Chatham, Effingham, and Glynn), both Chatham and Glynn Counties showed an overall increasing trend across the 5-year period. Regarding the CHD and Georgia, both locations showed a steep jump in mortality from 2019-2020, with smaller increasing or stable rates from 2020-2022.

Figure 260: Age-Adjusted Death Rates from Homicide, 5-year trends, by County, 2018-2022



Source: OASIS

Figure 261: Age-Adjusted Death Rates from Homicide, CHD & GA, 2018-2022

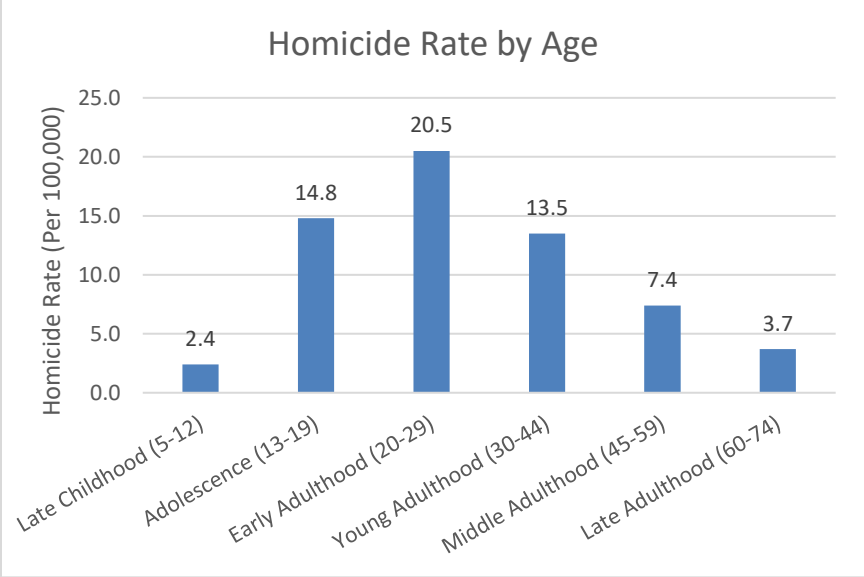


Source: OASIS

Homicide Rate: Demographics

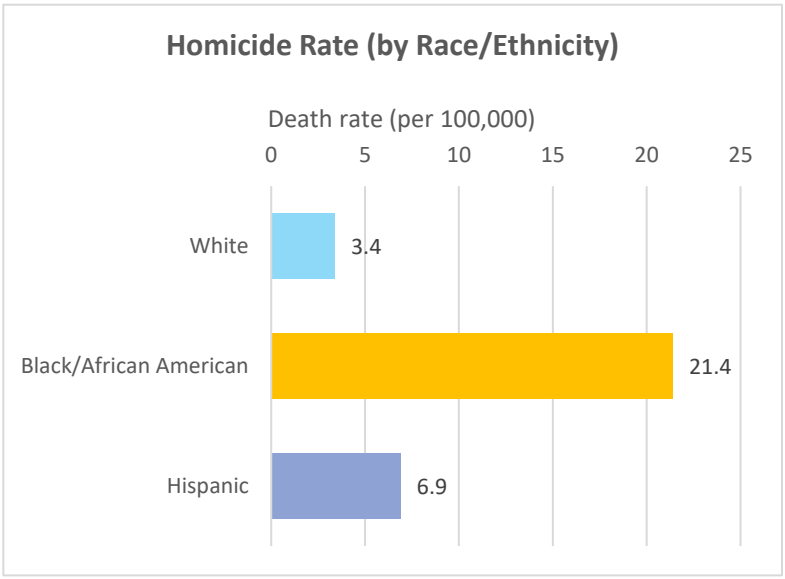
The figures below show CHD 2018-2022 homicide rate (per 100,000) broken down by age and race/ethnicity. Due to data suppression, homicide rates could not be presented for 0–4-year-olds, people 75 and older, Asians, or Native Hawaiians/Pacific Islanders. Rates for American Indians/Alaska Natives and Multiracial individuals was 0.0 and thus were not included in the graph. Homicide rates are highest in the following subpopulations: early adults (20–29-year-olds), Black/African Americans, and males.

Figure 262: Homicide Rate by Age, CHD, 2018-2022



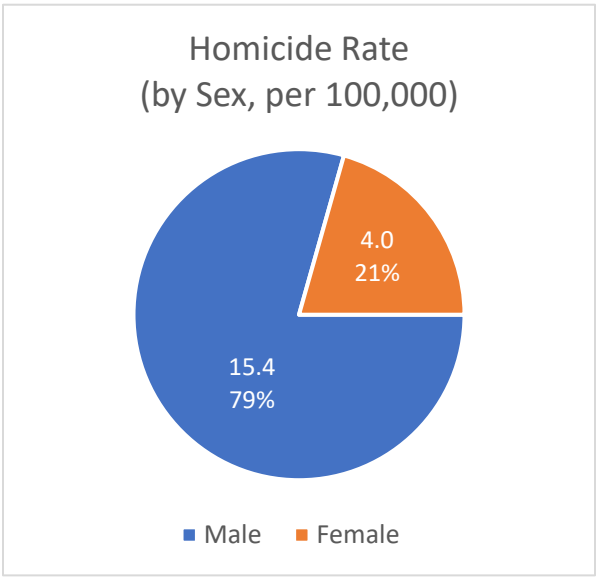
Source: OASIS

Figure 263: Age-Adjusted Homicide Rate by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 264: Age-Adjusted Homicide Rate by Sex, CHD, 2018-2022

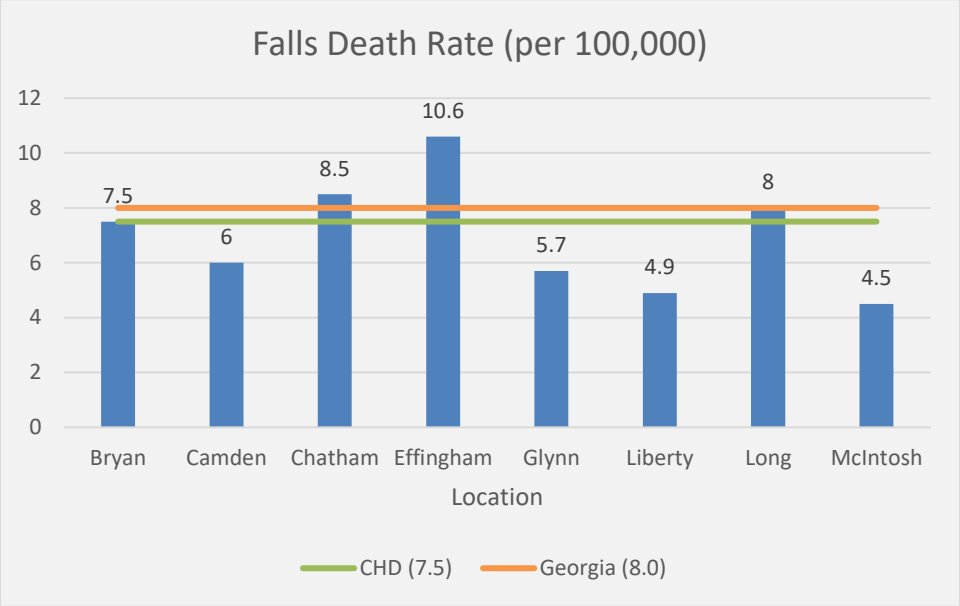


Source: OASIS

Falls

Falls consist of injuries caused by an individual accidentally losing their balance [120]. CHD's age-adjusted falls death rate of 7.5 per 100,000 is lower than Georgia's rate of 8.0 per 100,000.

Figure 265: Age-Adjusted Falls Death Rates, by County, 2018-2022

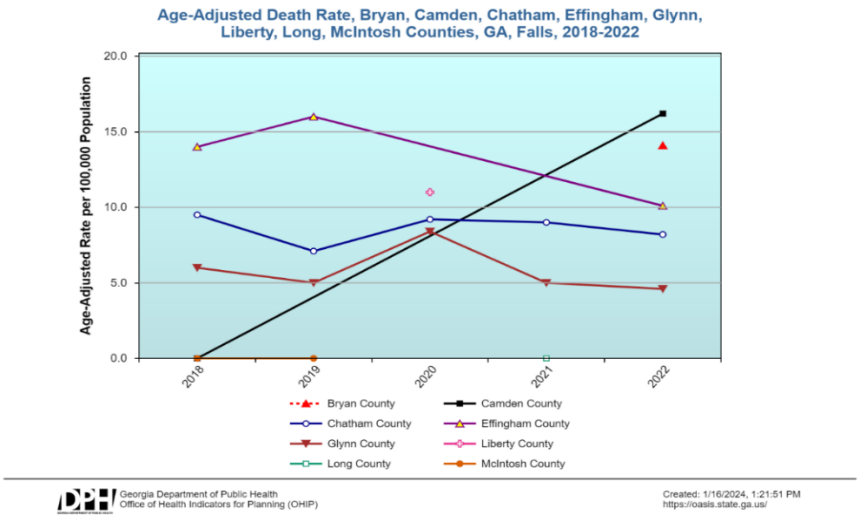


Source: OASIS

Falls Death Rate: 5-Year Trends

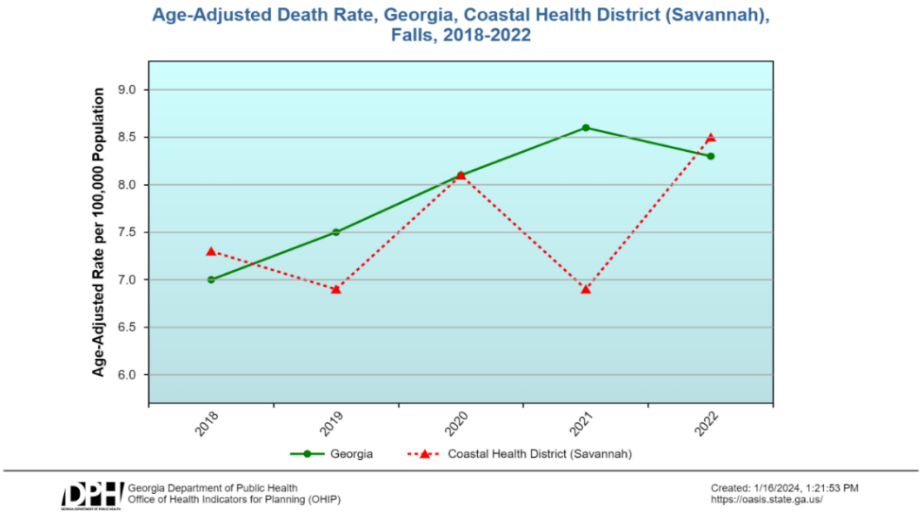
The figures below show trend lines for age-adjusted death rates from falls (per 100,000) across the 5-year period of 2018-2022 at county, district, and state-level. Several counties do not have death rates listed for certain years due to data suppression; Bryan County and Liberty County are missing 4 out of 5 years, while Long County is missing all 5. When examining only the counties with at least 3 years of plottable data, all the counties showed an overall downward trend across the 5-year period. Regarding the CHD and Georgia, Georgia showed a steep increase in rates from 2018-2021, with a drop in 2022; while alternating between highs and lows, ending with an overall slight increase in fall deaths by 2022.

Figure 266: Age-Adjusted Death Rates from Falls, 5-year trends, by County, 2018-2022



Source: OASIS

Figure 267:Age-Adjusted Death Rates from Falls, 5-year trends, CHD & GA, 2018-2022

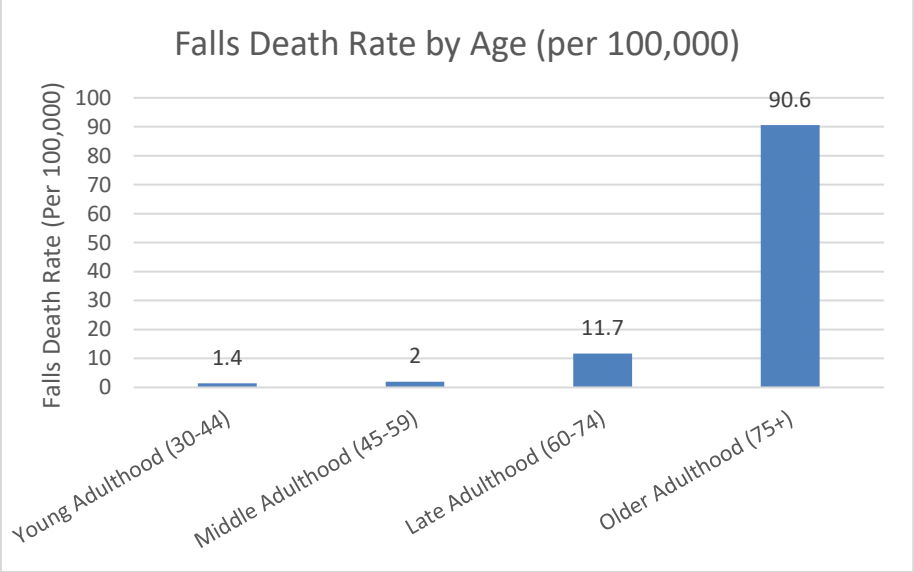


Source: OASIS

Falls Death Rate: Demographics

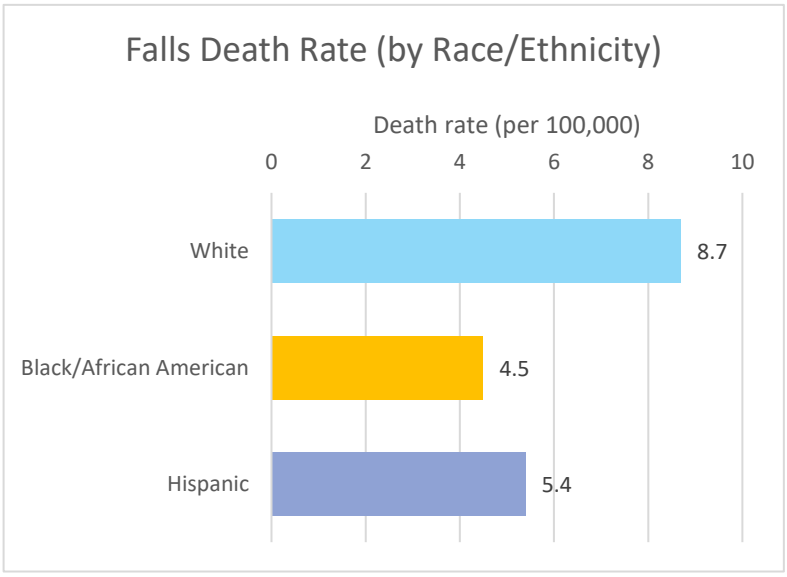
The figures below show CHD 2018-2022 falls death rate (per 100,000) broken down by age and race/ethnicity. Due to data suppression, fall death rates could not be presented for 20–29-year-olds, Asians, Native Hawaiians/Pacific Islanders, or Multiracial individuals. Rates for 0–19-year-olds as well as for American Indians/Alaska Natives were 0.0, and thus neither was also included in the following graphs. Falls death rates are highest in the following subpopulations: elderly people (75+ years), Whites, and males.

Figure 268: Falls Death Rate (per 100,00), by Age, CHD, 2018-2022



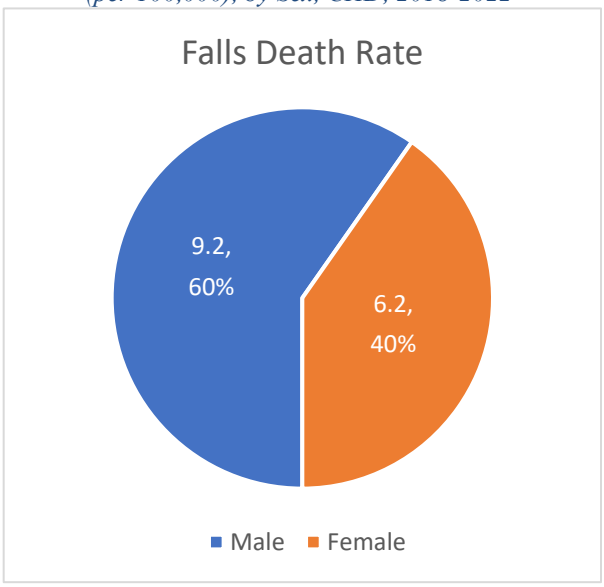
Source: OASIS

Figure 269: Age-Adjusted Falls Death Rate (per 100,000) by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 270: Age-Adjusted Falls Death Rate (per 100,000), by Sex, CHD, 2018-2022

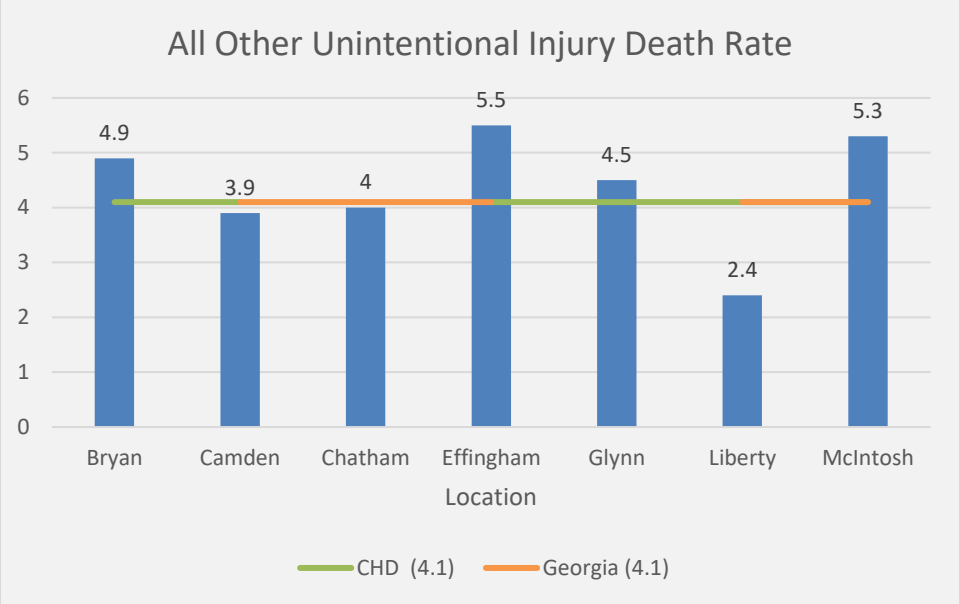


Source: OASIS

All Other Unintentional Injuries

Both the CHD and Georgia had an average age-adjusted rate of 4.1 per 100,000 deaths from all other unintentional injuries, which is any external cause of death excluding poisoning, suicide, motor vehicle crashes (MVCs), falls, accidental shootings, drowning, fire & smoke exposure, suffocation, homicide, or legal intervention [120].

Figure 271: Age-Adjusted All Other Unintentional Injuries Death Rates, by County, 2018-2022

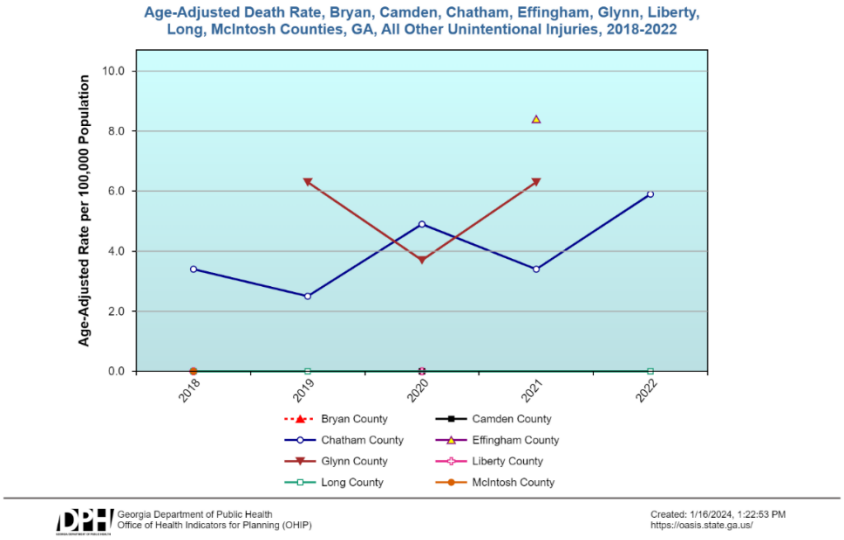


Source: OASIS

All Other Unintentional Injuries Death Rate: 5-Year Trends

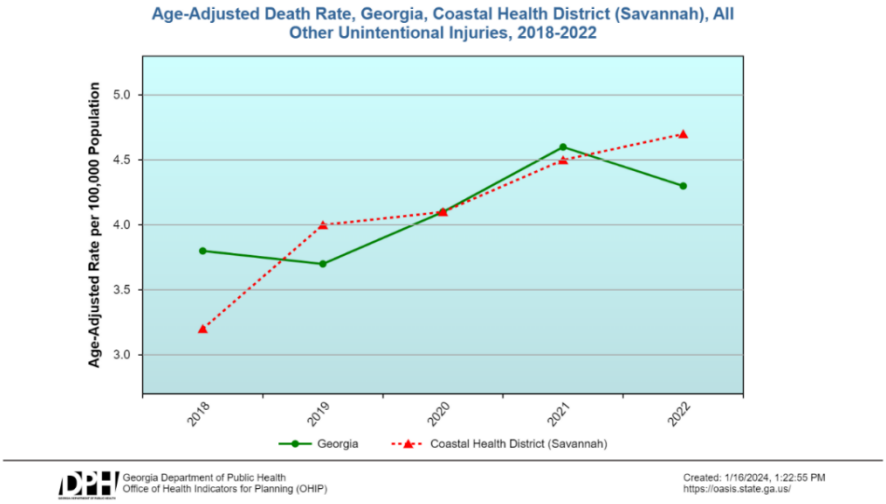
The figures below show trend lines for age-adjusted death rates from all other unintentional injuries (per 100,000) across the 5-year period of 2018-2022 at county, district, and state-level. Nearly all 8 counties do not have death rates listed for any of the 5 years due to data suppression or the rate being 0; the only exceptions are Chatham County (all 5 years), Glynn County (3 years), and McIntosh County (only 1 year). Rates for Glynn County returned to 6.3 per 100,000 for from 2019-2021, with a drop in 2020. Rates for Chatham County overall increased from 2018-2022. Like Chatham, the CHD and Georgia both showed an overall increase in rates of all other unintentional injuries death across the 2018-2022 5-year period.

Figure 272: Age-Adjusted Death Rates from All Other Unintentional Injuries, 5-year trends, by County, 2018-2022



Source: OASIS

Figure 273: Age-Adjusted Death Rates from All Other Unintentional Injuries, 5-year trends, CHD & GA, 2018-2022

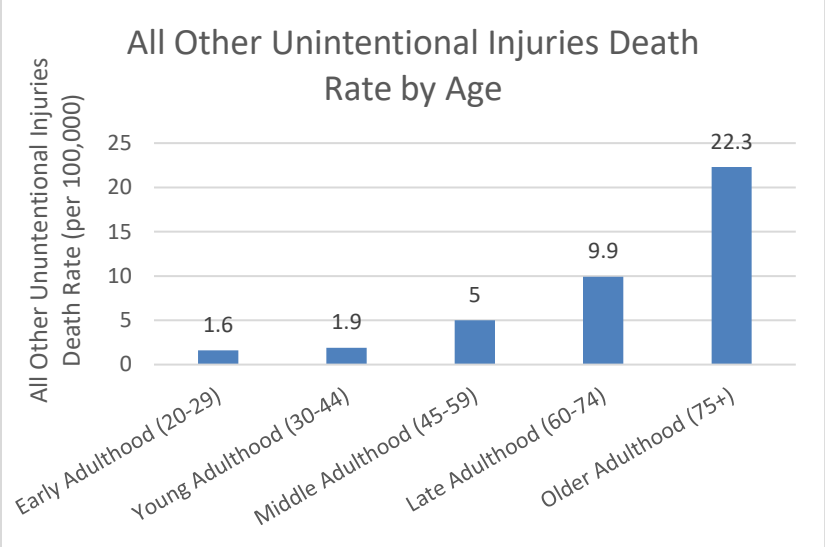


Source: OASIS

All Other Unintentional Injuries Death Rate: Demographics

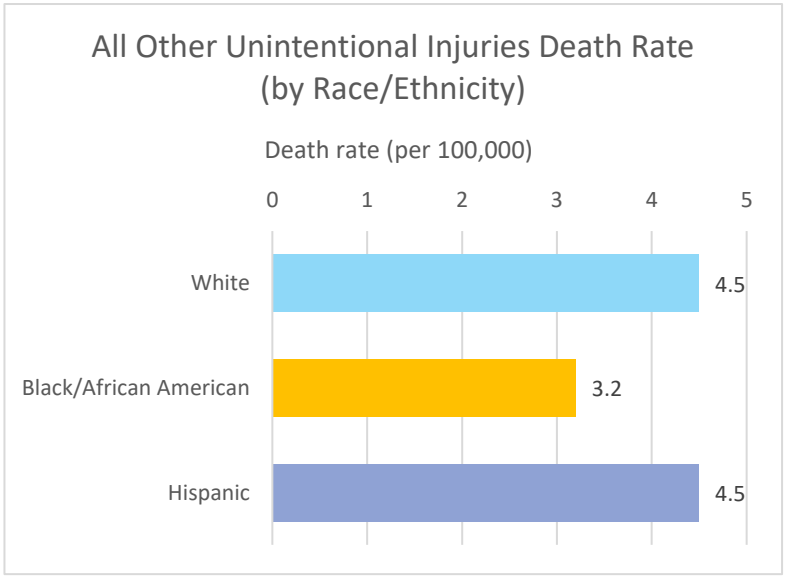
The figures below show CHD 2018-2022 all other unintentional injuries death rate (per 100,000) broken down by age, race/ethnicity, and sex. Due to data suppression, all other unintentional injuries death rates could not be presented for 0–4-year-olds, 13–19-year-olds, or Asians. Rates for 5–12-year-olds, American Indians/Alaska Natives, Native Hawaiian/Pacific Islanders, and Multiracial individuals was 0.0 and thus were also not included in the graph. All other unintentional injuries death rates are highest in the following subpopulations: elderly people (75+ years), Whites and Hispanics (tie), and males.

Figure 274: All Other Unintentional Injuries Death Rate by Age, CHD, 2018-2022



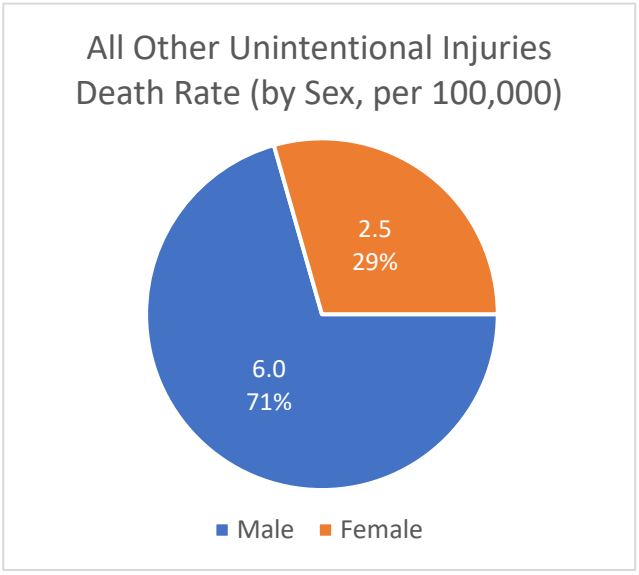
Source: OASIS

Figure 275: Age-Adjusted All Other Unintentional Injuries Death Rate, by Race/Ethnicity, CHD, 2018-2022



Source: OASIS

Figure 276: Age-Adjusted All Other Unintentional Injuries Death Rate by Sex, CHD, 2018-2022



Source: OASIS

Preventative Health

Preventative health is one of, if not the most, essential aspects in living lives that are "disease, disability, injury, and premature death" [6]. From childhood to old age, we also experience routine preventative health services commonly in the form of annual check-ups, vaccinations, and preventative screenings. Some common vaccinations are measles, mumps, and rubella (MMR); tetanus, diphtheria, and acellular pertussis (Tdap); seasonal influenza; and COVID-19; while regular cancer screenings usually include breast cancer (mammograms), colorectal cancer screenings, and prostate cancer screenings.

The DPH Immunization Study Reports is the referenced source for immunization coverage for toddlers aged 19 – 35 months and adolescents aged 13 – 17 years. Data is available at the state, district, and county levels; however, demographic stratifications (e.g., race, ethnicity, sex) are only available at the state level.

Data for influenza & pneumococcal vaccinations, as well as preventative cancer screenings, comes from the Centers for Medicare & Medicaid Services (CMS). COVID-19 vaccination data comes from the Georgia Department of Public Health's COVID-19 Vaccine Report & Vaccine Distribution Dashboard.

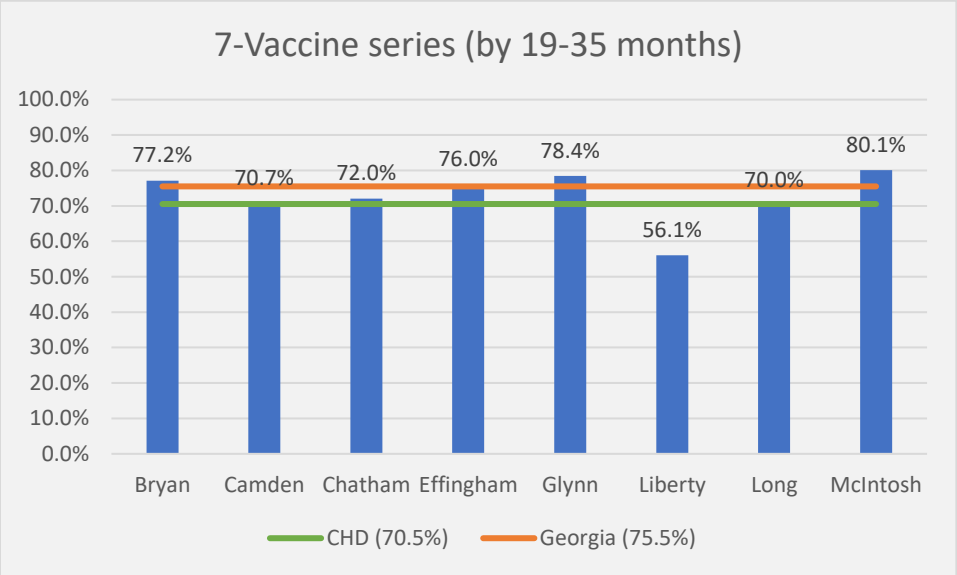
Childhood Immunizations

7-Vaccine series

The 7-vaccine series, also known as the ACIP 4:3:1:3:3:1:4 series, includes diphtheria, tetanus, acellular pertussis (DTaP), inactivated poliovirus (IPV), measles, mumps, rubella (MMR), *Haemophilus influenzae* type b (Hib), hepatitis B (HepB), varicella (Vari), and pneumococcal conjugate vaccine (PCV) [121]. It is based on the ACIP catch-up schedule, and a child is considered up-to-date if they received all doses by 35 months of age [121].

From 2019 – 2022, vaccine coverage for the complete 7-vaccine series in the CHD averaged 70.5%, lower than Georgia's vaccination coverage of 75.5%. Additionally, both Liberty County and Long County had averages lower than both the district and statewide averages.

Figure 277:Percentage coverage for 7-vaccine (4:3:1:3:3:1:4) series, ages 19-35 months, 2019-2022



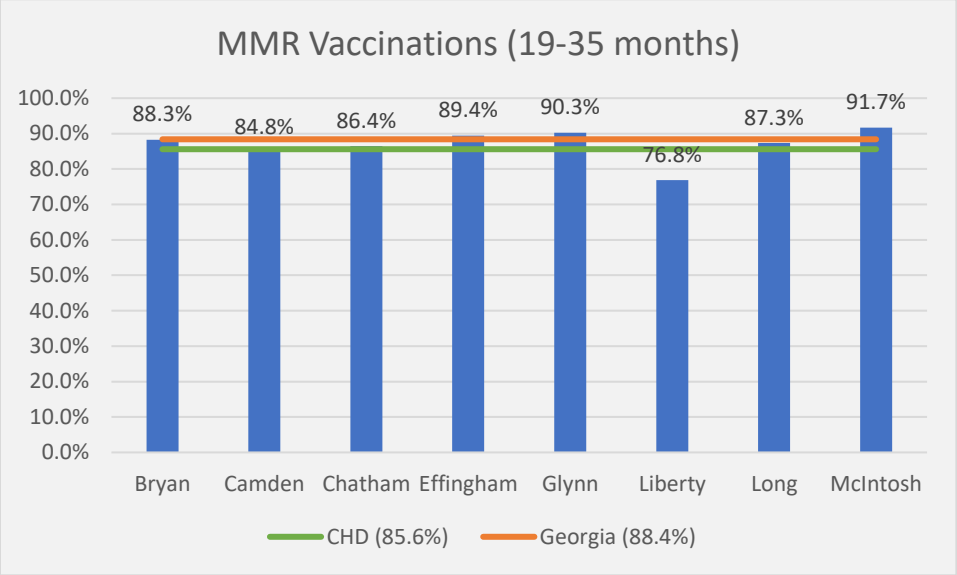
Source: DPH Immunization Study Reports

MMR Vaccinations

MMR is an acronym for vaccination against measles, mumps, and rubella [122]. These diseases are spread through the air and direct contact with an infected individual. Complications of these diseases can include pneumonia (measles); meningitis, deafness, and/or inflammation of testicles or ovaries (mumps); encephalitis, also knowns as swelling of the brain (measles and mumps); and stillbirths and/or premature birth (rubella) [122]. A child should have received their first dose of the MMR vaccine between 12 – 15 months; with the final dose given between ages 4 – 6 [122].

From 2019 – 2022, vaccine coverage for MMR in the CHD averaged 85.6%, lower than Georgia's vaccination coverage of 88.4%. Additionally, only Effingham County, Glynn County, and McIntosh County had averages higher than both the district and statewide averages.

Figure 278: Percentage coverage for MMR vaccinations, ages 19-35 months, 2019-2022



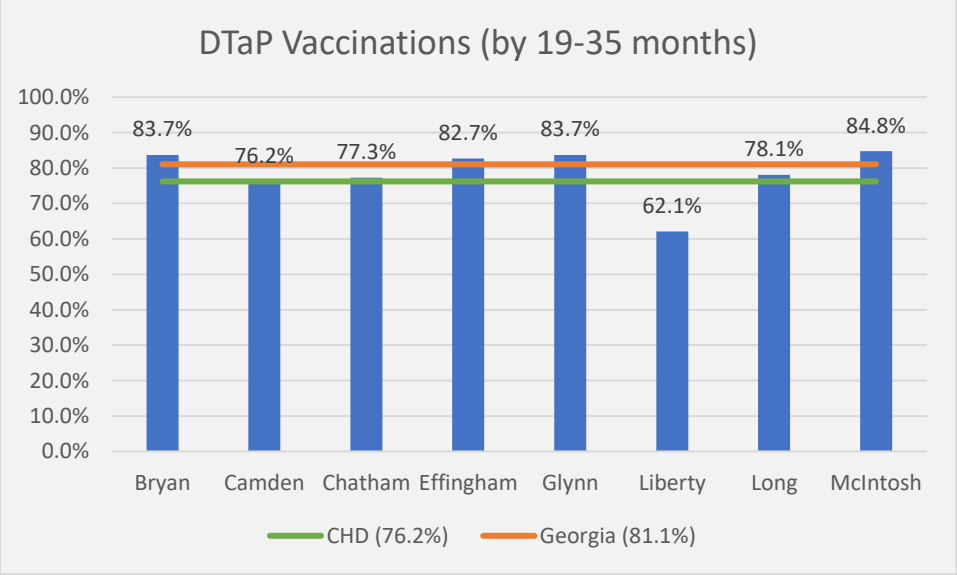
Source: DPH Immunization Study Reports

DTaP Vaccinations

DTaP is an acronym for vaccination against diphtheria, tetanus, & pertussis (whooping cough) [122]. Diphtheria and pertussis are spread through the air and direct contact with an infected individual; when tetanus is contracted by exposure to bacteria through a cut(s) in the skin [122]. Complications of these diseases can include swelling of the heart muscle, heart failure, paralysis, and coma (diphtheria); broken bones and difficulty breathing (tetanus); pneumonia (pertussis); and death (all three diseases) [122]. A child should have received four doses of the DTaP vaccine before by 18 months of age, with a final fifth dose given between ages 4 – 6 [122].

From 2019 – 2022, vaccine coverage for DTaP in the CHD averaged 76.2% lower than Georgia's vaccination coverage of 81.1%. However, only Liberty County had averages lower than both the district and statewide averages.

Figure 279: Percentage coverage for DTaP vaccinations, ages 19-35 months, 2019-2022



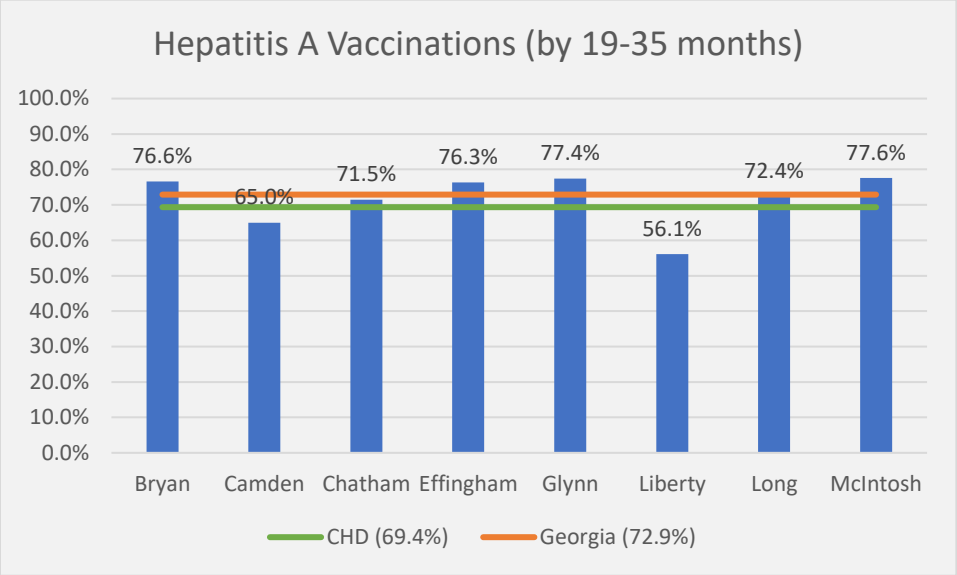
Source: DPH Immunization Study Reports

HepA Vaccinations

HepA is an acronym for vaccination against hepatitis A, which is spread through direct contact with an infected individual, or contaminated food and/or water [122]. Complications of hepatitis A include jaundice (yellowing of the skin and/or eyes); joint pain; kidney, pancreatic, & blood disorders; liver failure; and death [122]. A child should have received both doses of the HepA vaccine before their 2nd birthday [122].

From 2019 – 2022, vaccine coverage for HepA in the CHD averaged 69.4%, lower than Georgia's vaccination coverage of 72.9%. Additionally, both Camden County and Liberty County had averages lower than both the district and statewide averages.

Figure 280: Percentage coverage for Hepatitis A vaccinations, ages 19-35 months, 2019-2022



Source: DPH Immunization Study Reports

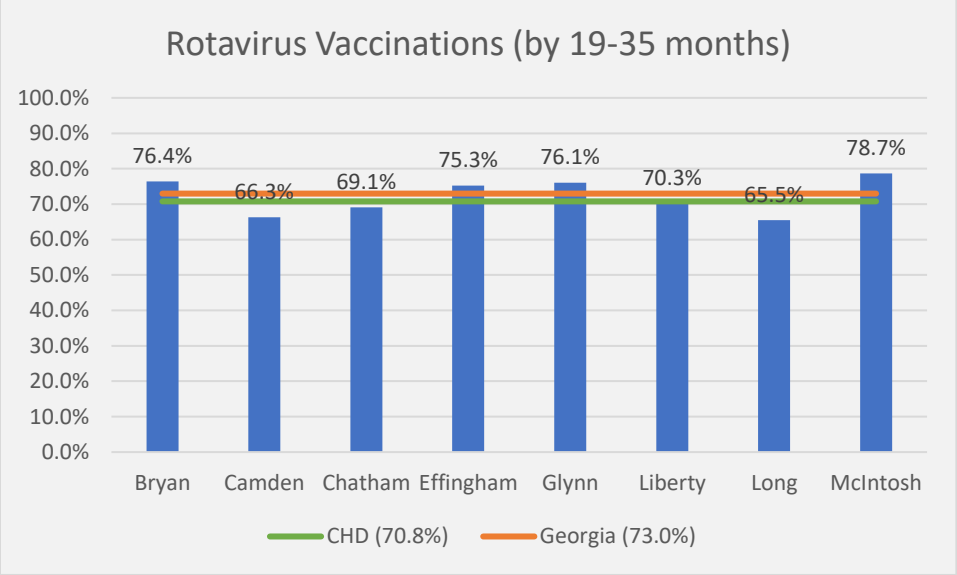
Rotavirus Vaccinations

RV is an acronym for vaccination against rotavirus, which is spread through putting unwashed fingers/hands into their mouth after touching objects/surfaces contaminated with feces or eating contaminated food [123]. Symptoms of rotavirus include watery diarrhea, vomiting, fever, and abdominal pain [122] [124]. Severe complications of rotavirus can include severe diarrhea, dehydration, hospitalization, and death [122] [124]. The first vaccine dose should be given before 15 weeks of age; a child must receive all (2 or 3, depending on the brand) doses of the Rotavirus vaccine before their turn 8 months old [125] [124].

If a child does not complete the vaccination series (which is delivered via a dropper into the mouth) before turning 8 months, there is no option for catch-up vaccination, and they will **not** be able to be vaccinated for rotavirus at a later date [125] [126].

From 2019 – 2022, vaccine coverage for rotavirus in the CHD averaged 70.8%, lower than Georgia's vaccination coverage of 73.0%. Additionally, Camden County, Chatham County, Liberty County, and Long County all had averages lower than both the district and statewide averages.

Figure 281: Percentage coverage for Rotavirus vaccinations, ages 19-35 months, 2019-2022



Source: DPH Immunization Study Reports

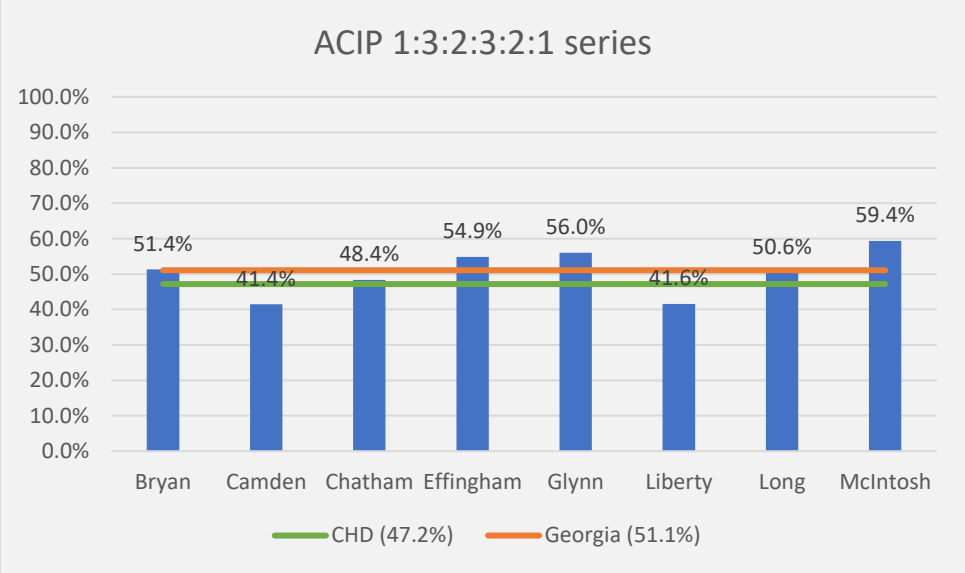
Adolescent Immunizations

ACIP 1:3:2:3:2:1 series

The ACIP 1:3:2:3:2:1 series includes diphtheria, tetanus, acellular pertussis (Tdap), inactivated poliovirus (IPV), measles, mumps, rubella (MMR), hepatitis B (HepB), varicella (Vari), and meningococcal conjugate vaccine for serogroups A, C, W, and Y (MenACWY) [127]. It is based on the ACIP catch-up schedule, and an adolescent is considered up-to-date if they received all doses by 18 years of age [127].

From 2019 – 2022, vaccine coverage for the ACIP 1:3:2:3:2:1 series in the CHD averaged 47.2%, lower than Georgia's vaccination coverage of 51.1%. Additionally, both Camden County and Liberty County had averages lower than the district and statewide averages.

Figure 282: Percentage coverage for ACIP 1:3:2:3:2:1 vaccine series, ages 13-17 years, 2019-2021



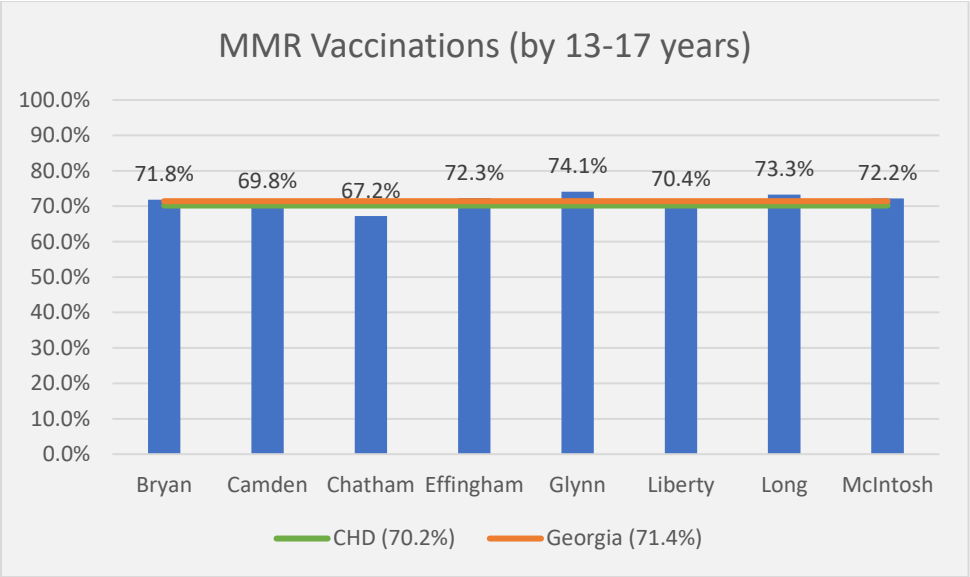
Source: DPH Immunization Study Reports

MMR Vaccinations

MMR is an acronym for vaccination against measles, mumps, and rubella. Typically, a child receives both doses of the MMR vaccine before their 7th birthday [126]. For catch-up immunizations for older children and adolescents, it is recommended to have at least 4 weeks between the 2 doses [126].

From 2019 – 2022, vaccine coverage for MMR for adolescents in the CHD averaged 70.2%, lower than Georgia's vaccination coverage of 71.4%. Additionally, both Camden County and Chatham County had averages lower than both the district and statewide averages.

Figure 283: Percentage coverage for MMR vaccinations, ages 13-17 years, 2019-2022



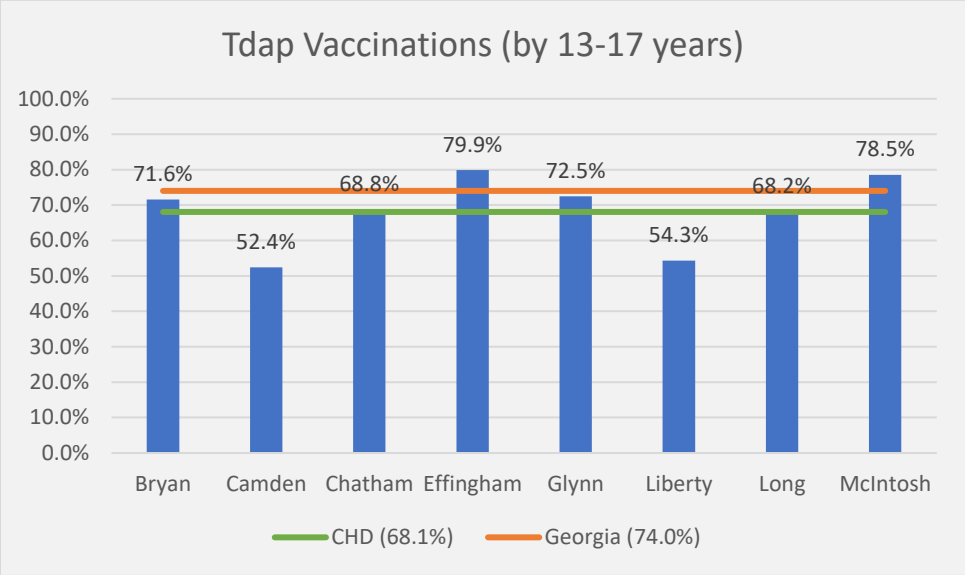
Source: DPH Immunization Study Reports

Tdap Vaccinations

Tdap is an acronym for vaccination against tetanus, diphtheria, & pertussis. It is similar to the DTaP series; however, DTaP is recommended for children under 7 years old, while Tdap vaccination is recommended for older children and adults [126]. It is recommended that the Tdap vaccine be given between 11 – 12 years old, followed by a Td or Tdap booster shot every 10 years. [128] Teenagers who did not get a Tdap vaccination at age 11 or 12 should be given as soon as possible at their next doctor's appointment [128].

From 2019 – 2022, vaccine coverage for DTaP in the CHD averaged 68.1% lower than Georgia's vaccination coverage of 74.0%. However, both Camden County and Liberty County had averages lower than both the district and statewide averages.

Figure 284: Percentage coverage for Tdap vaccinations, ages 13-17 years, 2019-2022



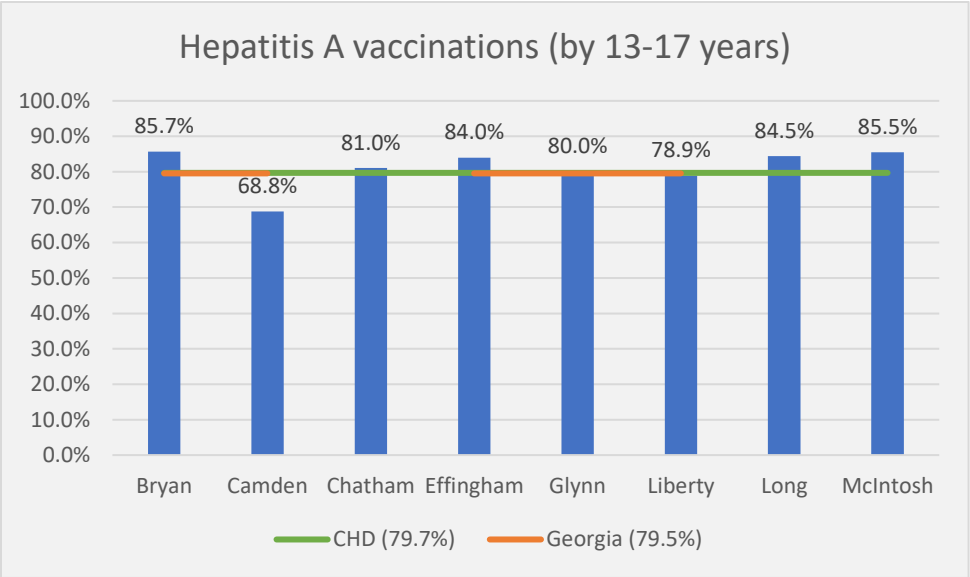
Source: DPH Immunization Study Reports

Hepatitis A Vaccinations

HepA vaccination is an acronym for vaccination against hepatitis A [126]. A child should have received both doses of the HepA vaccine before their 2nd birthday [122]. For catch-up immunizations for older children and adolescents under 18, it is recommended to have at least 6 months between the 2 doses [126].

From 2019 – 2022, vaccine coverage for HepA in the CHD averaged 79.7%, slightly above Georgia's average vaccination coverage of 79.5%. Additionally, both Camden County and Liberty County had averages lower than both the district and statewide averages.

Figure 285: Percentage coverage for Hepatitis A vaccinations, ages 13-17 years, 2019-2022



Source: DPH Immunization Study Reports

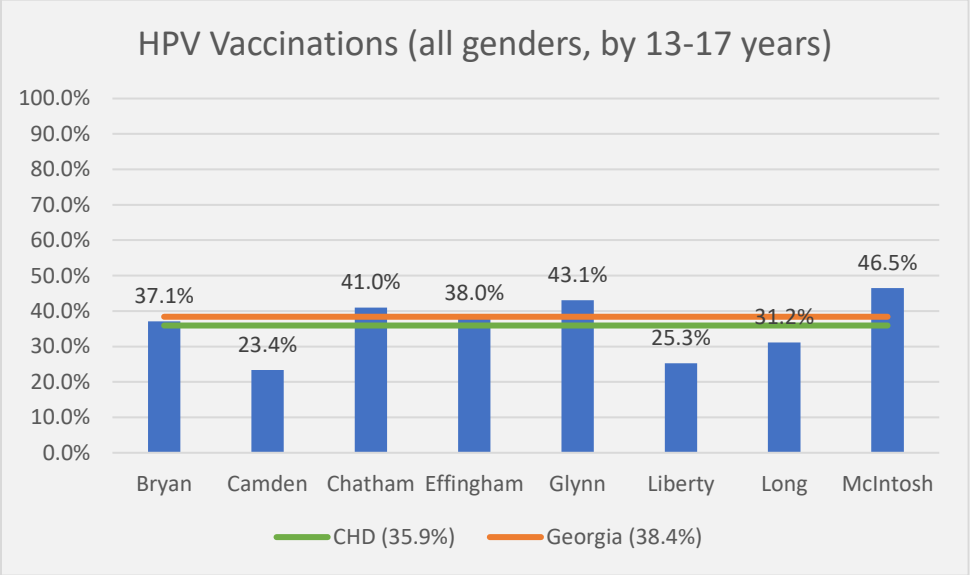
HPV Vaccinations

HPV is an acronym for vaccination against human papillomavirus [126]. HPV is spread through direct skin contact with an infected individual. [129] Complications of HPV include cancers of the cervix, vagina, vulva, penis, anus, and/or oropharynx (back of the throat) [129].

It is recommended that the HPV vaccine 2-dose series be given between 11 – 12 years old, although it can be given as early as 9 years old [126]. For individuals who start the series after age 15, as well as those with weakened immune systems, it is recommended that they receive a 3-dose series [126].

From 2019 – 2022, vaccine coverage for HPV in the CHD averaged 35.9%, lower than Georgia's vaccination coverage of 38.4%. Additionally, Camden County, Liberty County, and Long County all had averages lower than both the district and statewide averages.

Figure 286: Percentage coverage for HPV vaccinations, ages 13-17 years, 2019-2022



Source: DPH Immunization Study Reports

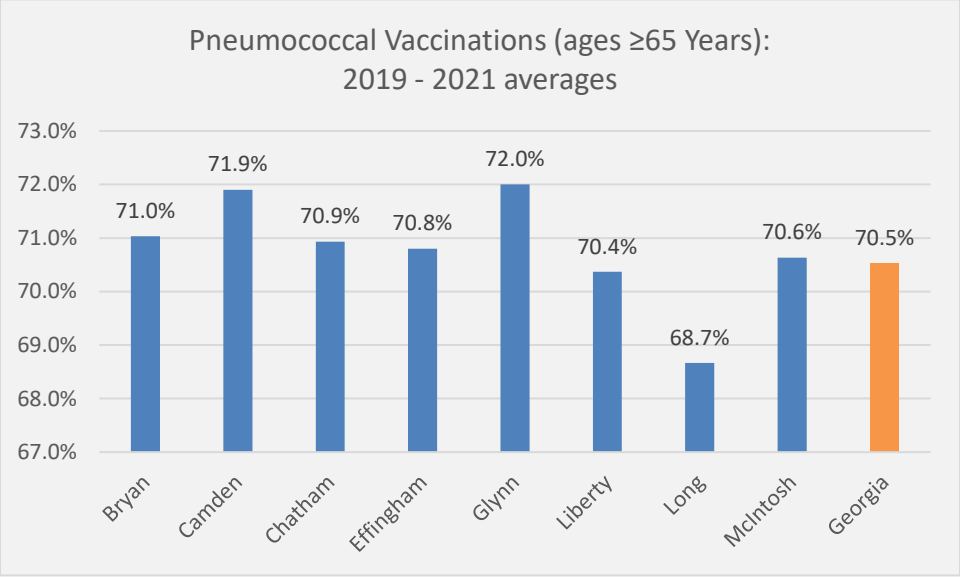
Immunizations for Older Adults

Pneumococcal Vaccinations

Pneumococcal vaccination helps prevent pneumococcal disease, the infection from the *Streptococcus pneumoniae* [130] [131]. Pneumococcal disease is spread through direct contact with saliva and/or mucus contaminated with the bacteria [130] [132]. Pneumococcal disease can cause multiple infections, including in the lungs (pneumonia), ears (otitis media infection), sinuses (sinusitis), blood (bacteremia), brain & spinal cord (meningitis) [133]. All adults 65 and older are recommended to complete the pneumococcal vaccine series (1 or 2, doses depending on the manufacturer) [131].

Between 2019 – 2021, the number of adults 65 and older who received pneumococcal pneumonia vaccinations in the CHD ranged from 68.7% – 72.0%. Liberty County and Long County were the only two counties lower than Georgia's 70.5%.

Figure 287: Age-Adjusted Percentage coverage for Pneumococcal Vaccinations, aged 65 and older, by County, 2019-2021



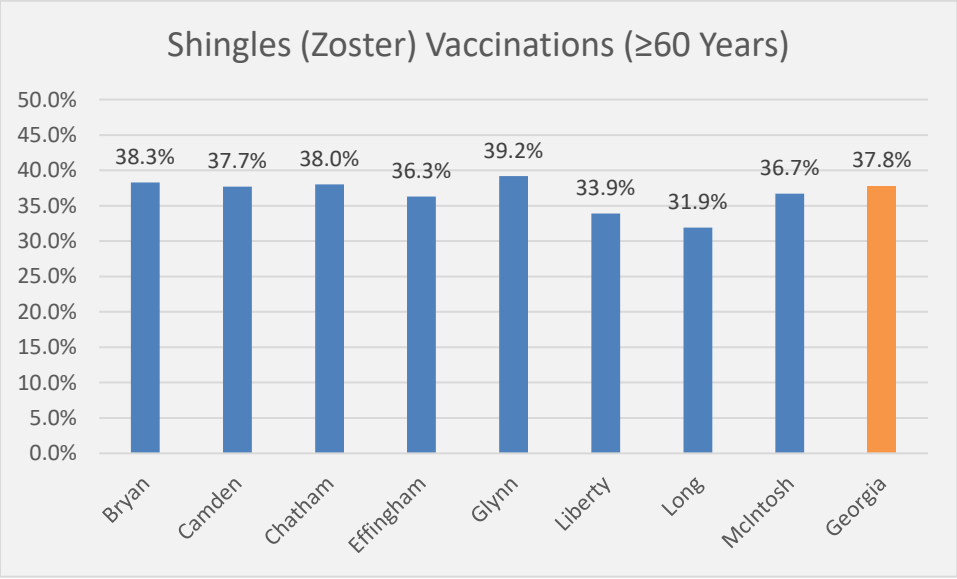
Source: CDC

Shingles (Herpes Zoster) Vaccinations

Shingles vaccination is the only way to prevent shingles, also known as herpes zoster [134]. Shingles are caused by a reactivation of the varicella-zoster virus (VZV), the same virus that causes chickenpox; this means that anyone who was infected with chickenpox is at risk for developing shingles later in life [135] [134]. Furthermore, a person infected with shingles can also spread chickenpox to people who either never contracted chickenpox or were not vaccinated for chickenpox [135]. This occurs through direct contact with the fluid from the rash blisters and/or by breathing in virus particles from the blisters [135]. Complications of shingles include severe blistering rash on one side of the face or body; long-term nerve pain (known as postherpetic neuralgia, or PHN), vision damage and blindness, hearing damage, and death [136] [130]. All adults 50 and older are recommended to complete the Shingrix 2-dose vaccine series, even if they: received the varicella (chickenpox) vaccine; received the Zostavax shingles vaccine (which was discontinued in the U.S. in 2020); and/or previously had shingles [137]. However, an individual should NOT receive a shingles vaccination while currently experiencing shingles symptoms [137].

Between 2019 – 2022, the number of adults 60 and older who received Shingles (Zoster) vaccinations in the CHD ranged from 31.9% – 39.2%. Bryan, Chatham, and Glynn Counties were the only counties higher than Georgia's 37.8%.

Figure 288: Age-Adjusted Percentage coverage for Shingles (Zoster) Vaccination, aged 60 and older, by County, 2022



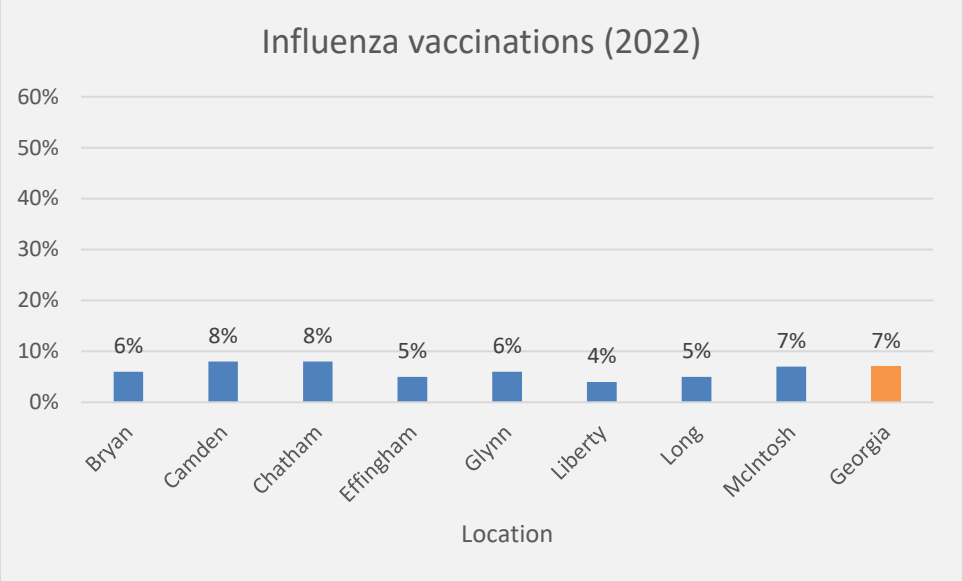
Source: CDC

Vaccinations (any age)

Influenza Vaccinations

In 2022, the age-adjusted percentage of Medicare enrollees vaccinated for seasonal influenza in the CHD ranged from 25% – 47%. Chatham County and Glynn County were the only two counties exceeding Georgia's 44%.

Figure 289: Age-Adjusted Percentage coverage for Influenza Vaccinations (Medicare), by County, 2022



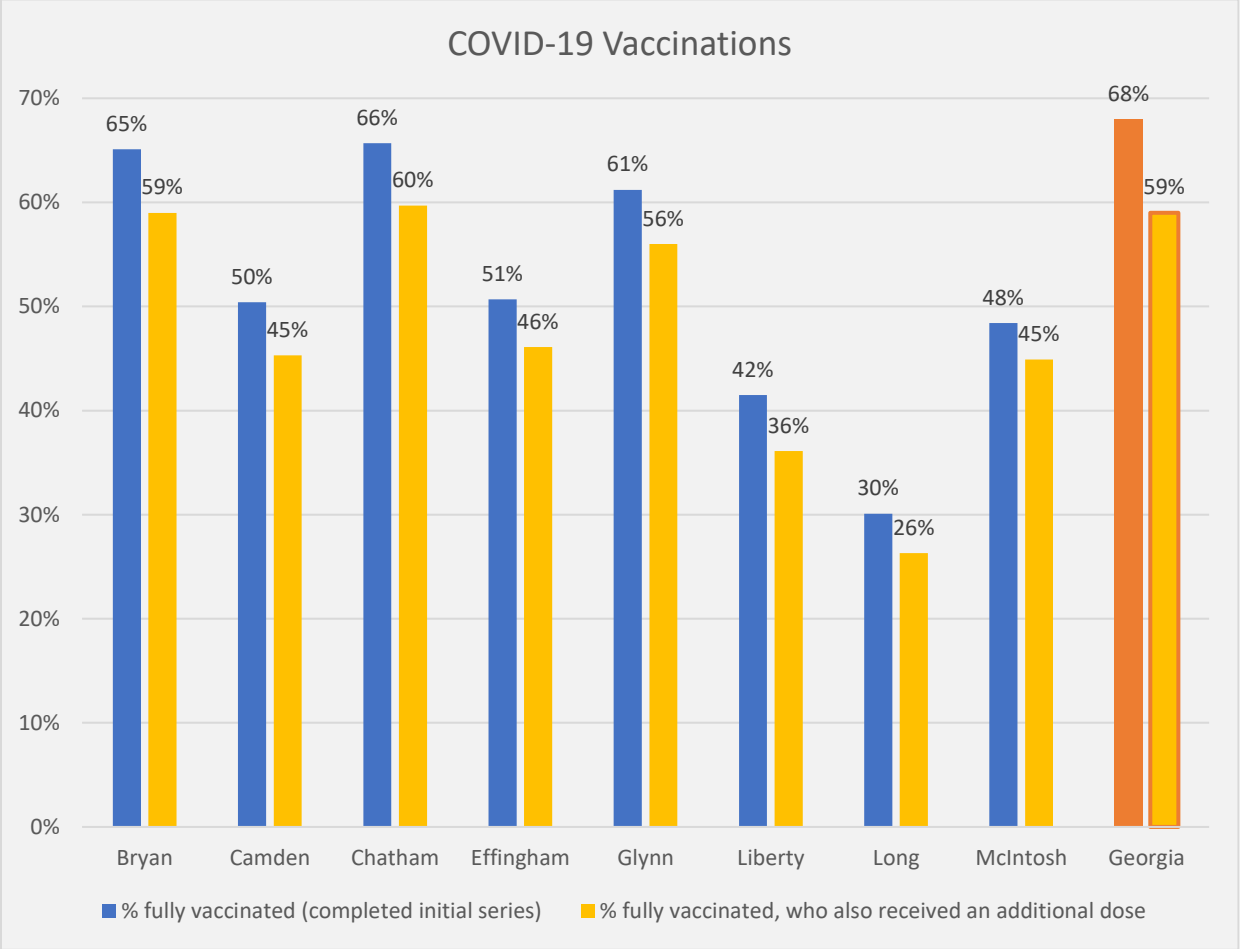
Source: Centers for Medicare & Medicaid Services

COVID-19 Vaccinations

As of January 24, 2024, the percentage of CHD residents who completed their initial 1 or 2-dose COVID-19 vaccination series (depending on the manufacturer) ranged from 30% – 66%, compared to Georgia's state average of 68%.

As of January 24, 2024, the percentage of those who completed their initial series, who also received any additional COVID-19 vaccine, ranged from 26% – 60%, with only Bryan and Chatham, respectively, meeting or exceeding Georgia's average of 59%.

Figure 290: Percentage coverage for COVID-19 vaccination for initial series and subsequent updated vaccines, by County; up to date as of 01/24/2024

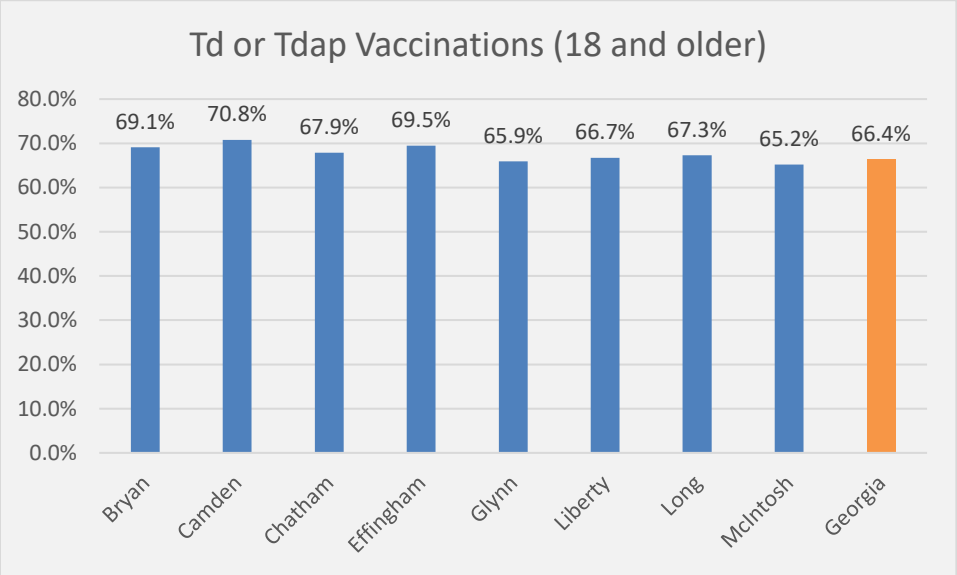


Source: DPH COVID-19 Vaccine Report

Td or Tdap Vaccinations (≥18 Years)

Between 2019 – 2022, the age-adjusted percentage of adults 18 and older who received either Td or Tdap vaccinations in the CHD ranged from 65.2% – 70.8%. Glynn County and McIntosh County were the only counties lower than Georgia's 66.4%.

Figure 291: Age-Adjusted Percentage coverage for Td or Tdap vaccinations, aged 18 and older, by County, 2019-2022



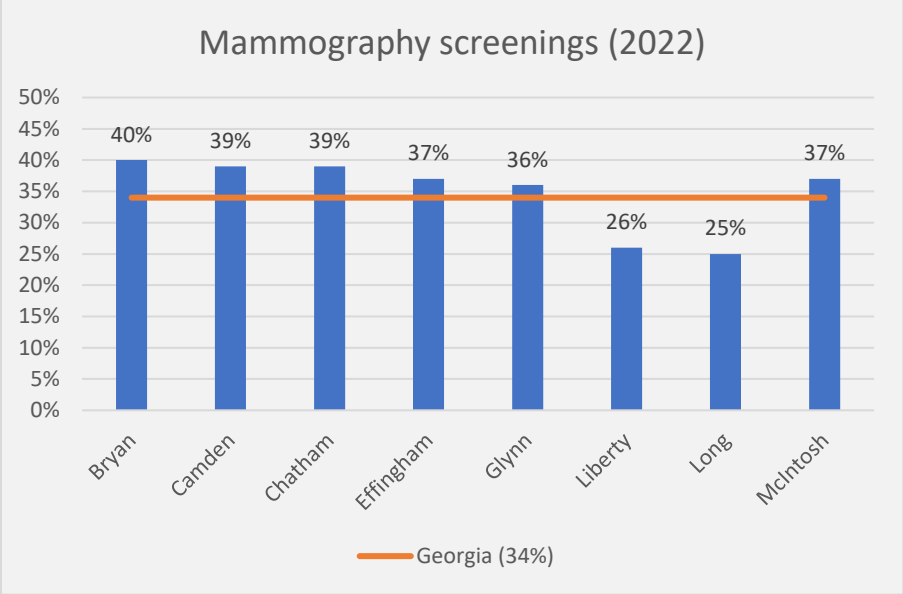
Source: CDC

Cancer Screenings

Breast Cancer (Mammograms)

Screening tests for breast cancer include bilateral mammography (which may or may not include computer-aided detection [CAD]) and bilateral digital breast tomosynthesis (also known as 3-D mammography) [138] [139]. In 2022, the age-adjusted percentage of CHD Medicare enrollees who received a mammogram (breast cancer screening) ranged from 25%-40%. Liberty County and Long County are the only locations below Georgia's 34%.

Figure 292: Age-Adjusted Mammography (Breast Cancer) Screenings, by County, 2022

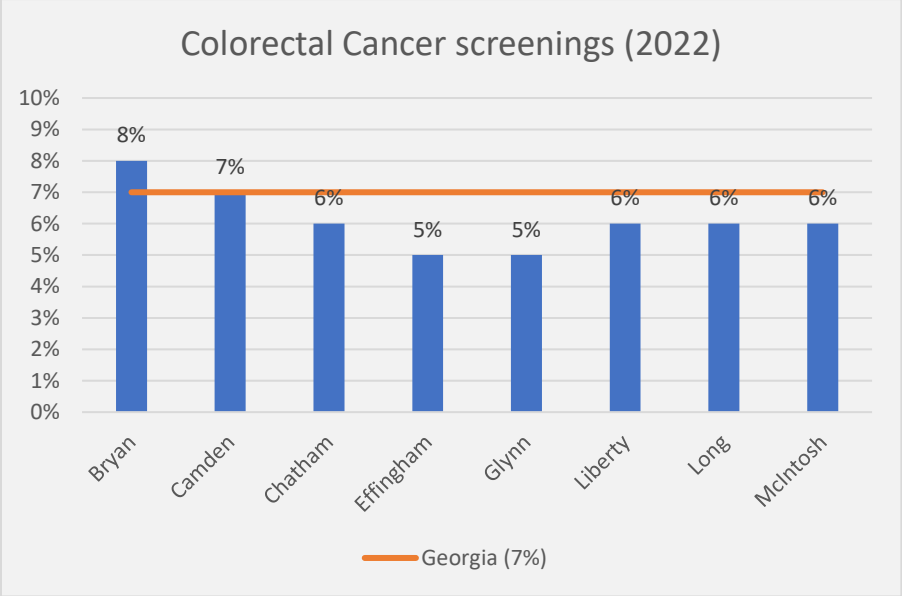


Source: Centers for Medicare & Medicaid Services

Colorectal Cancer

Screening tests for colorectal cancer include MT-sDNA and blood-based biomarker tests, screening colonoscopies, fecal occult blood tests (FOBTs), flexible sigmoidoscopies, and barium enemas [138]. In 2022, the age-adjusted percentage of CHD Medicare enrollees who received a colorectal cancer screening ranged from 5%-8%, with only Camden and Bryan, respectively, meeting or exceeding Georgia's 7%.

Figure 293: Age-Adjusted Colorectal Cancer Screenings, by County, 2022

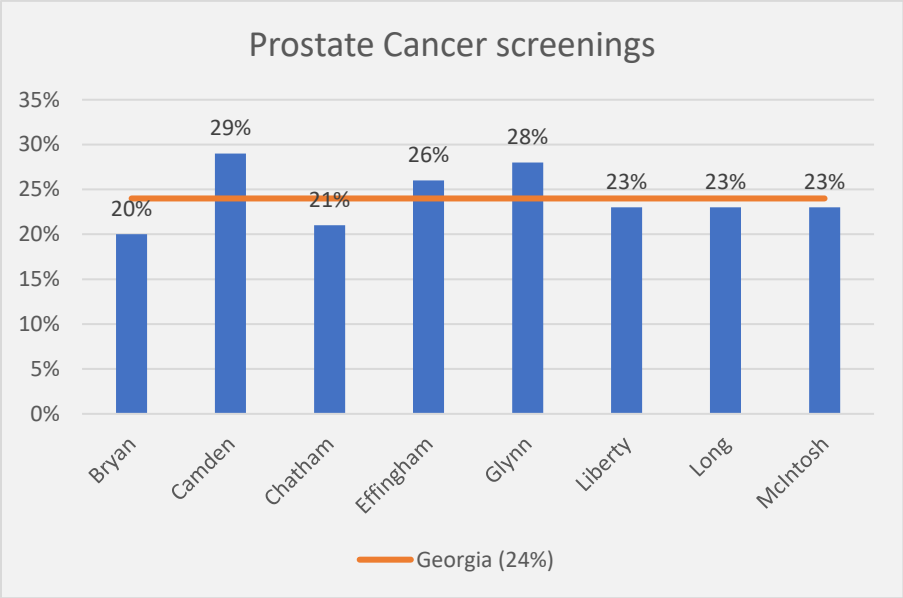


Source: Centers for Medicare & Medicaid Services

Prostate Cancer

Screening tests for prostate cancer include a digital rectal examination and a prostate-specific antigen (PSA) blood test [138]. In 2022, the age-adjusted percentage of CHD Medicare enrollees who received a prostate cancer screening test ranged from 20%-29%, with Camden, Effingham, & Glynn surpassing Georgia's 24%.

Figure 294: Age-Adjusted Prostate Cancer Screenings, by County, 2022



Source: Centers for Medicare & Medicaid Services

Conclusion

The community health profile of the Coastal Health District provides a comprehensive overview of the health landscape in the region. Through the analysis of various health indicators, demographic data, and healthcare resources, the profile offers valuable insights into the challenges and strengths of our community. This information serves as a crucial foundation for developing targeted health interventions and policies to enhance the overall well-being of the population within the Coastal Health District. Continued collaboration between healthcare professionals, policymakers, and the community itself will be essential in addressing health disparities and fostering a healthier future for residents in this diverse and dynamic region.

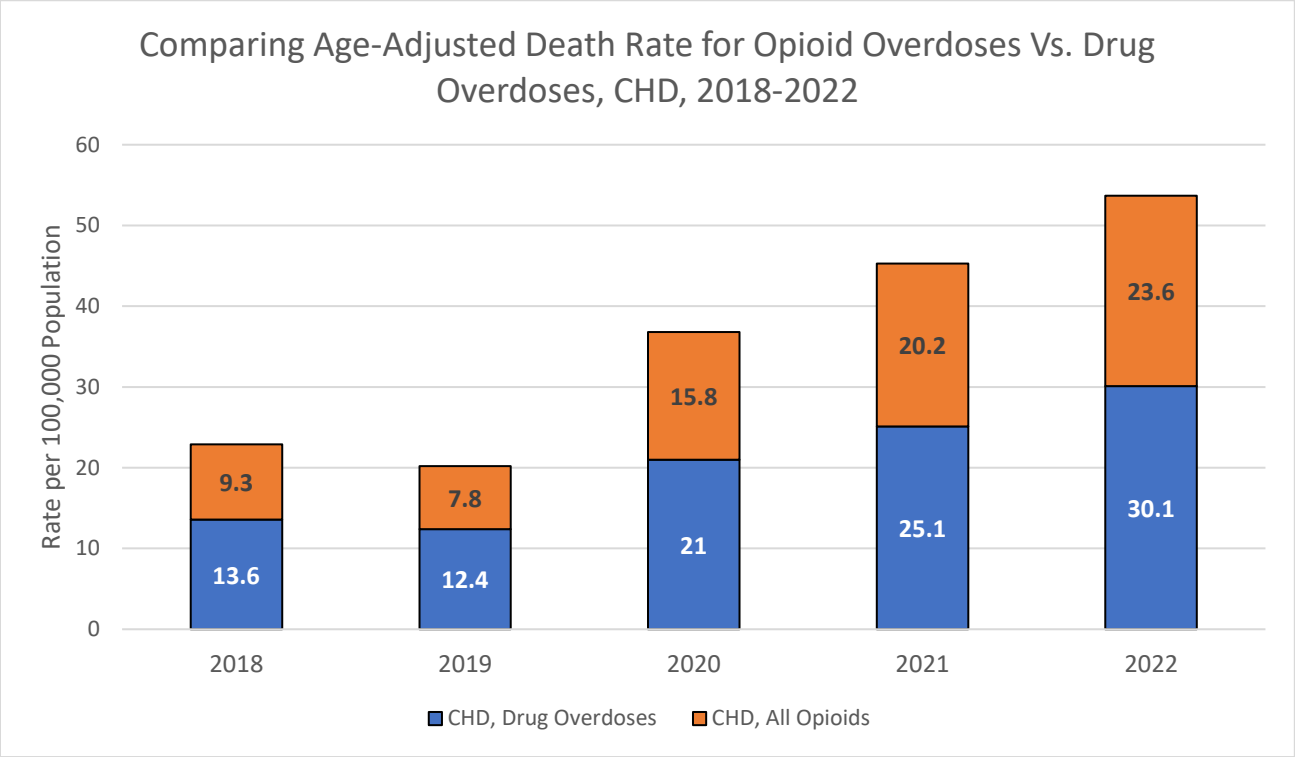
Appendix

Figure 295: List of Beaches by CHD County

Camden	Chatham	Glynn	Liberty	McIntosh
Little Cumberland	Bradley (Ossabaw)	12 St. Gould's Inlet (SSI)	St. Catherines Island	Cabretta (Sapelo)
	Kings Ferry	5th St. Crossover (SSI)		Contentment Bluff Sandbar
	Little Tybee Island	Blythe Island Regional Park Sandbar		Dallas Bluff Sandbar
	Middle Ossabaw	East Beach Old Coast Guard (SSI)		Nanny Goat (Sapelo)
	Skidaway Narrows	Glory Beach		
	South Ossabaw	Great Dunes Beach		
	Tybee Island Middle	Jekyll Clam Creek Beach		
	Tybee Island North	Jekyll Driftwood Beach		
	Tybee Island Polk St.	Little St. Simons		
	Tybee Island South	Massengale (SSI)		
	Tybee Island Strand	North Dunes Beach		
	Williamson Island	Oceanview Beach		
		Pelican Spit (Off Sea Island)		
		Rainbow Bar (Little SSI)		
		Reimolds Pasture (Little SSI)		
		Sea Island North		
		Sea Island South		
		South Dunes Beach (Jekyll)		
		St. Andrews Beach (Jekyll)		
		St. Simons Island Lighthouse		

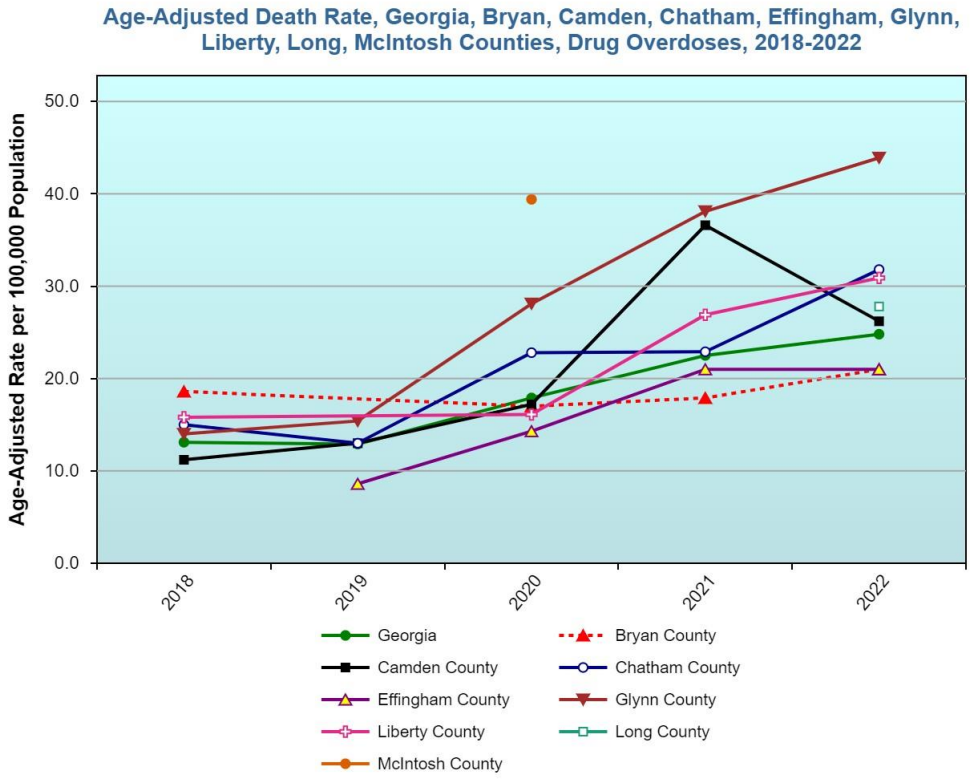
Source: EPA

Figure 296: Comparing Age-Adjusted Death Rate for Opioid Overdoses Vs. Drug Overdoses, CHD, 2018-2022



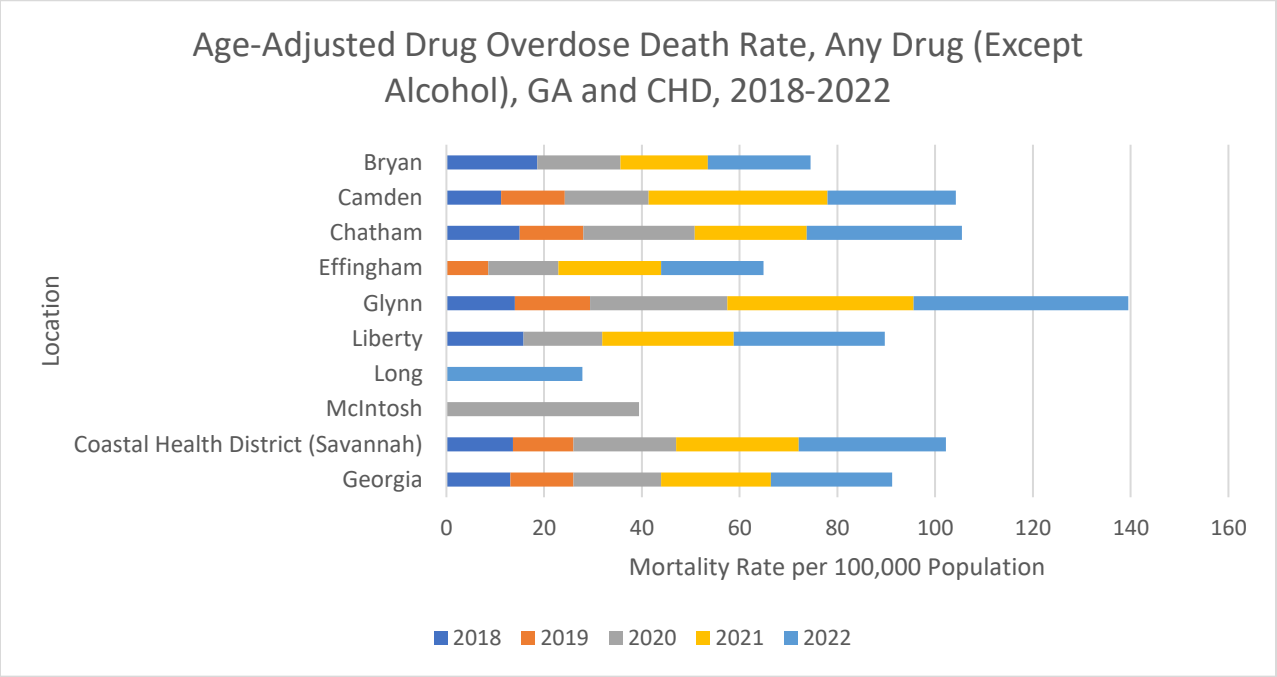
Source: OASIS

Figure 297: Age-Adjusted Drug Overdose Death Rate, Georgia and CHD, 2018-2022



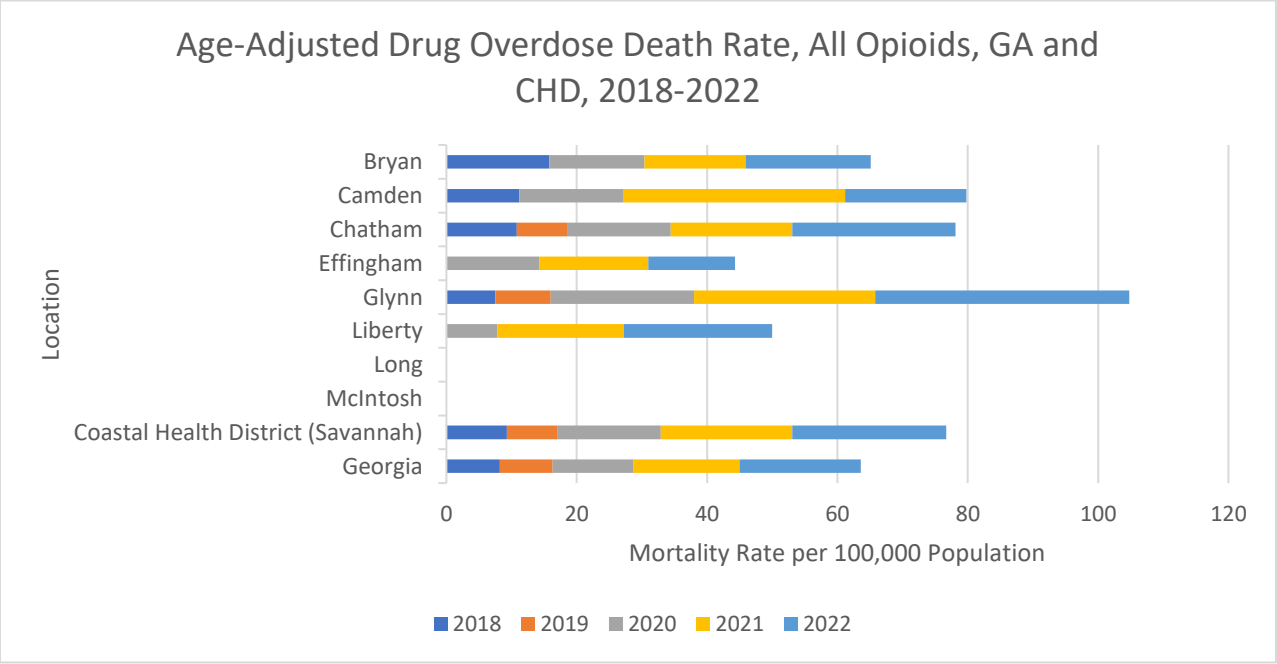
Source: OASIS

Figure 298: Age-Adjusted Drug Overdose Death Rate, Any Drug (Except Alcohol), GA and CHD, 2018-2022



Source: OASIS

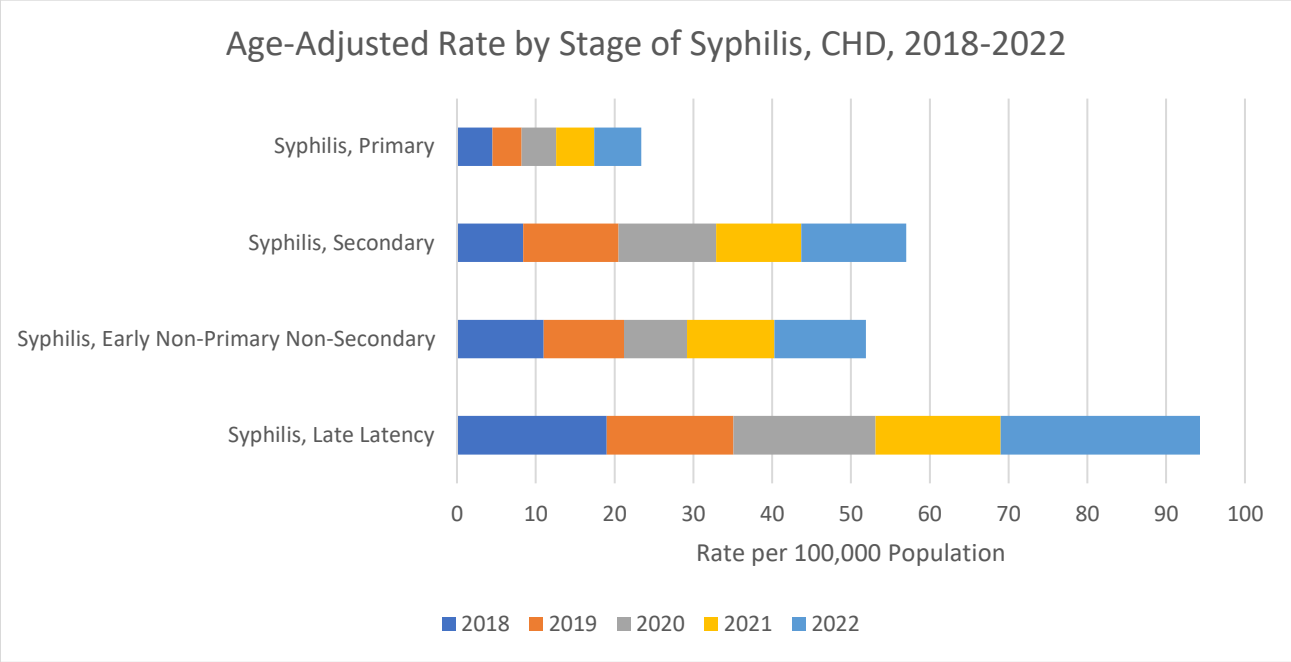
Figure 299: Age-Adjusted Drug Overdose Death Rate, All Opioids, GA and CHD, 2018-2022



Source: OASIS

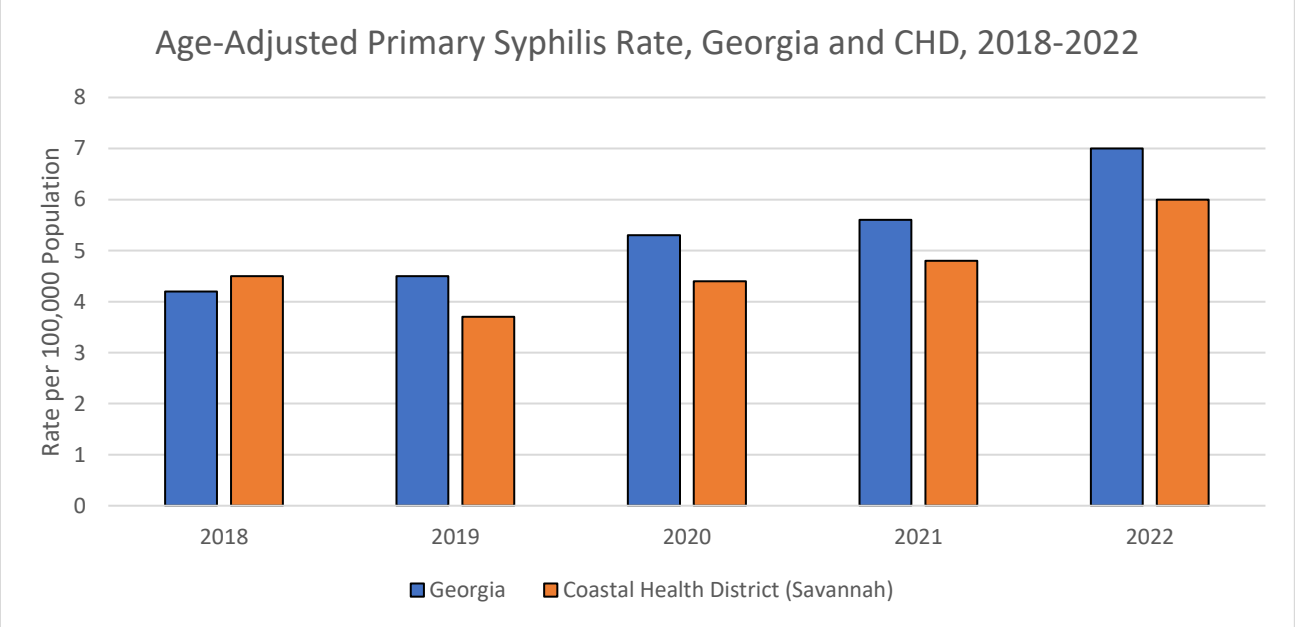
The figure below shows the age-adjusted rate by the stages of syphilis from 2018-2022 for the CHD. Syphilis with unknown latency is included in the Syphilis, late latency category.

Figure 300: Age-Adjusted Rate by Stage of Syphilis, CHD, 2018-2022



Source: OASIS

Figure 301: Age-Adjusted Primary Syphilis Rate, Georgia and CHD, 2018-2022



Source: OASIS

List of Figures & Tables

Resources

Data Resources

The Annie E. Casey Foundation KIDS COUNT Data Center

- https://datacenter.kidscount.org

Centers for Disease Control and Prevention

BRFSS Prevalence & Trends Data
https://www.cdc.gov/brfss/brfssprevalence/

- Drug Overdose
  https://www.cdc.gov/drugoverdose/rxrate-maps/opioid.html
- HIV
  https://www.cdc.gov/hiv/basics/statistics.html
- National Environmental Public Health Tracking Network
  https://ephtracking.cdc.gov/
- PLACES: Local Data for Better Health
  https://www.cdc.gov/places/
- Vaccination Coverage among Adults (18+ Years)
  https://data.cdc.gov/Vaccinations/Vaccination-Coverage-among-Adults-18-Years-/aetd-68ew/

Centers for Medicare & Medicaid Services Mapping Medicare Disparities by Population

- https://data.cms.gov/tools/mapping-medicare-disparities-by-population

County Health Rankings & Roadmaps

- https://www.countyhealthrankings.org/

Environmental Protection Agency

- BEACON 2.0 (Beach Advisory and Closing Online Notification)
  https://watersgeo.epa.gov/beacon2/reports.html
- ECHO (Enforcement and Compliance History Online)
  https://echo.epa.gov/facilities/facility-search/results
- My Environment
  https://enviro.epa.gov/myenvironment/

Feeding America

- https://map.feedingamerica.org/county/2021/overall/georgia

Georgia Department of Education

- https://oraapp.doe.k12.ga.us/ows-bin/owa/fte_pack_frl001_public.entry_form

Georgia Department of Public Health

- Cancer Reports
  https://dph.georgia.gov/cancer-reports

- FASTER-GA Georgia Firearm Injury Surveillance Through Emergency Rooms: Georgia Approach Dashboard
  https://public.tableau.com/views/GADPH_FASTER/Glance?%3Aembed=y&%3Adisplay_count=no&%3AshowVizHome=no
- GHHLPPP (Georgia Healthy Homes and Lead Poisoning Prevention Program) Database
  https://dph.georgia.gov/environmental-health/healthy-homes-and-lead-poisoning-prevention
- HIV Surveillance Data
  Georgia HIV Surveillance Data | Georgia Department of Public Health
- Immunization Study Reports.
  https://dph.georgia.gov/immunization-study-reports
- Maternal Mortality Review
  https://dph.georgia.gov/maternal-mortality
- OASIS
  https://oasis.state.ga.us/
- Restaurant Inspections
  https://ga.healthinspections.us/stateofgeorgia/
- SendSS (State Electronic Notifiable Disease Surveillance System)
  https://sendss.state.ga.us/ords/sendss/login.screen
- HUD (United States Department of Housing and Urban Development) CHAS (Comprehensive Housing Affordability Strategy) Data Portal
  https://www.huduser.gov/portal/datasets/cp.html#query_2006-2020

State Cancer Profiles

- https://www.statecancerprofiles.cancer.gov/data-topics/incidence.html

U.S. Census Bureau & American Community Survey

- https://data.census.gov/

U.S. News- Healthiest Communities

- https://www.usnews.com/news/healthiest-communities

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