

Winship Catchment Area Assessment

Winship Community Outreach & Engagement

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COE Catchment Area
Assessment: State of Georgia
Cancer Burden & Priorities

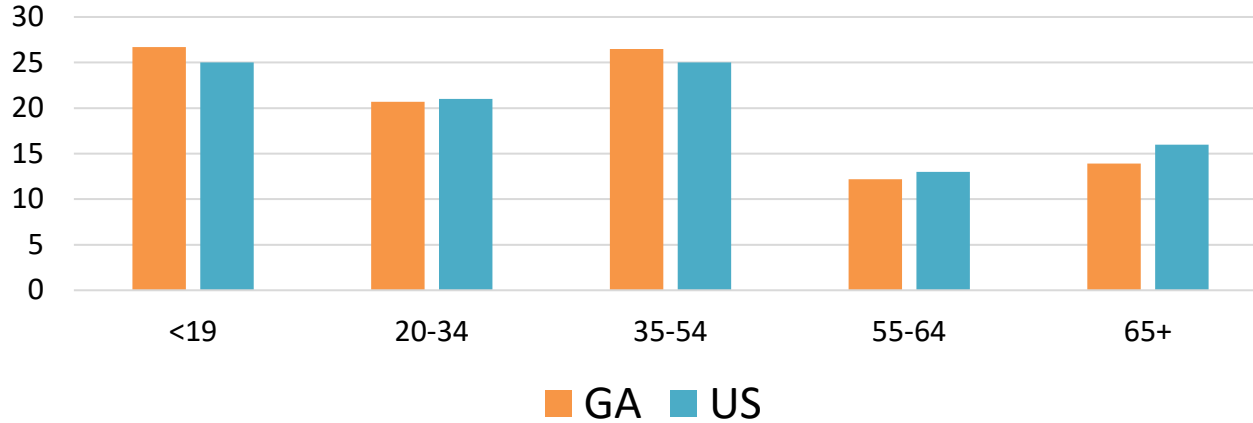


Table of Contents

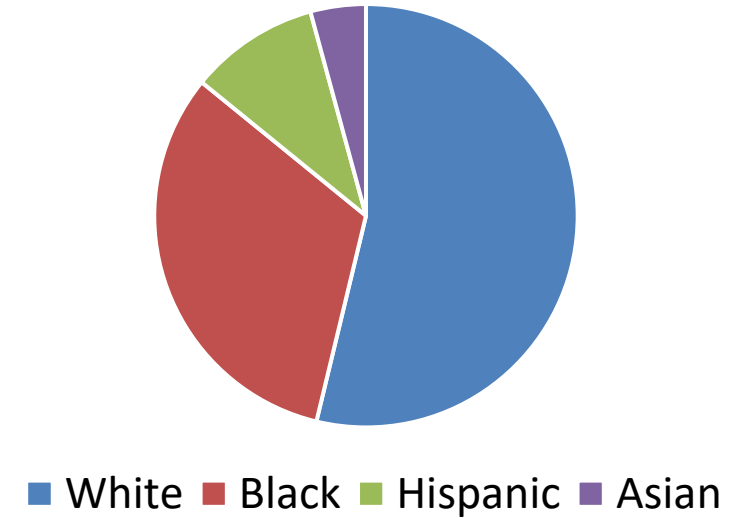
- State Population Demographics 4
- Cancer Incidence (GA) 5
- Blood Cancers 7
- Cancer Mortality (GA) 10
- Social Determinants of Health 13
- Rurality in Georgia 20
- Georgia Health Rankings 22
- Screening & Risk Factors 23
- Special Population (PLWH) 26
- Summary 27
- Data Resources 30
- Contact Information 37

State Population Demographics: GA

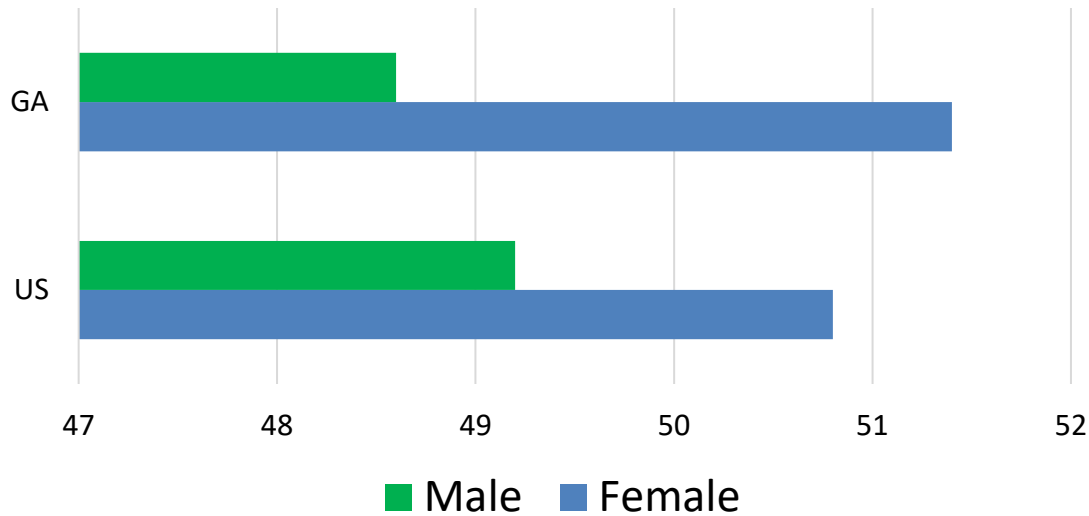
Age Distribution (%): GA vs. US



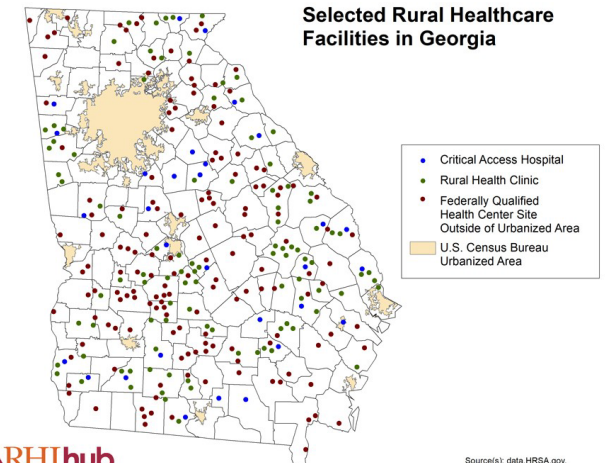
Racial Distribution (%)



Distribution by Sex (%)



Georgia:
 57900 sq mi; 78% rural
 10.7M total population
 2.3M reside in rural GA

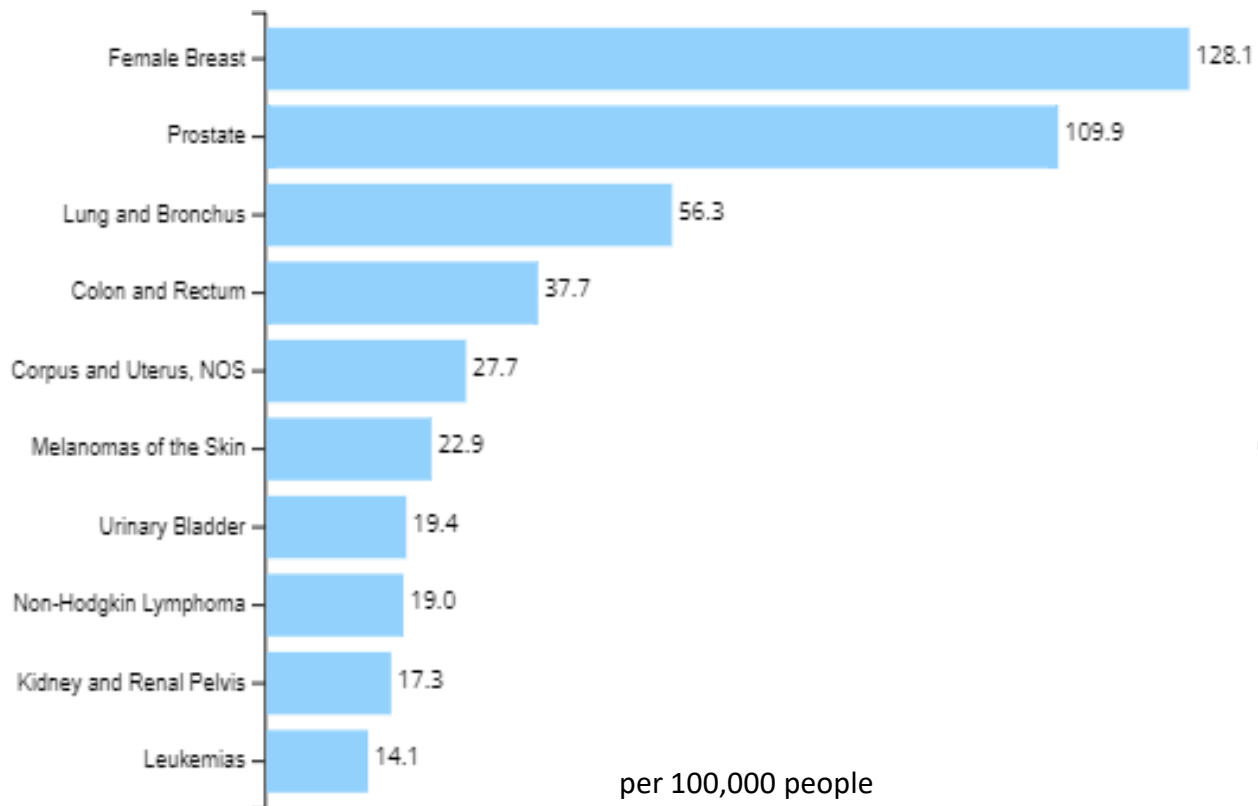


Age-Adjusted Overall Cancer Incidence: US & GA Top 10 Cancers

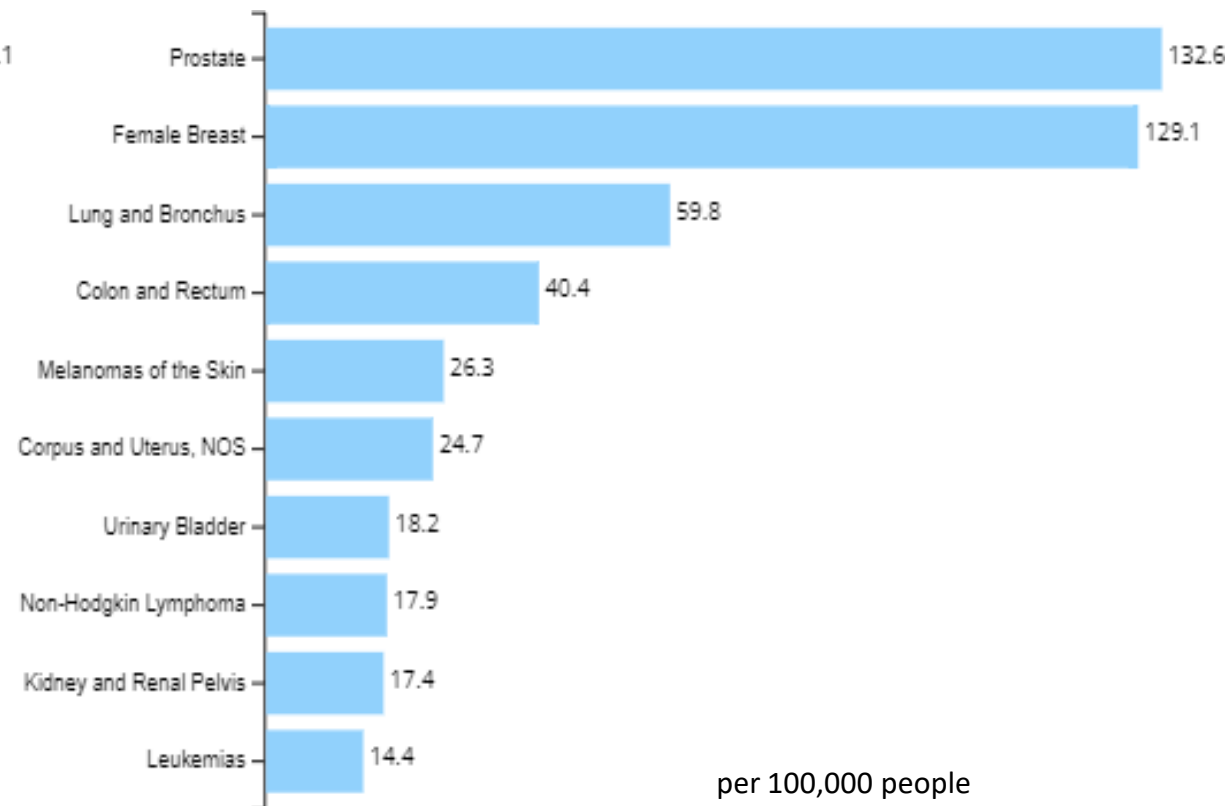
US, **All Cancers**, 2015-2019

Georgia, **All Cancers**, 2015-2019

Higher rates for prostate, breast, lung, colorectal, melanoma, kidney, and leukemias

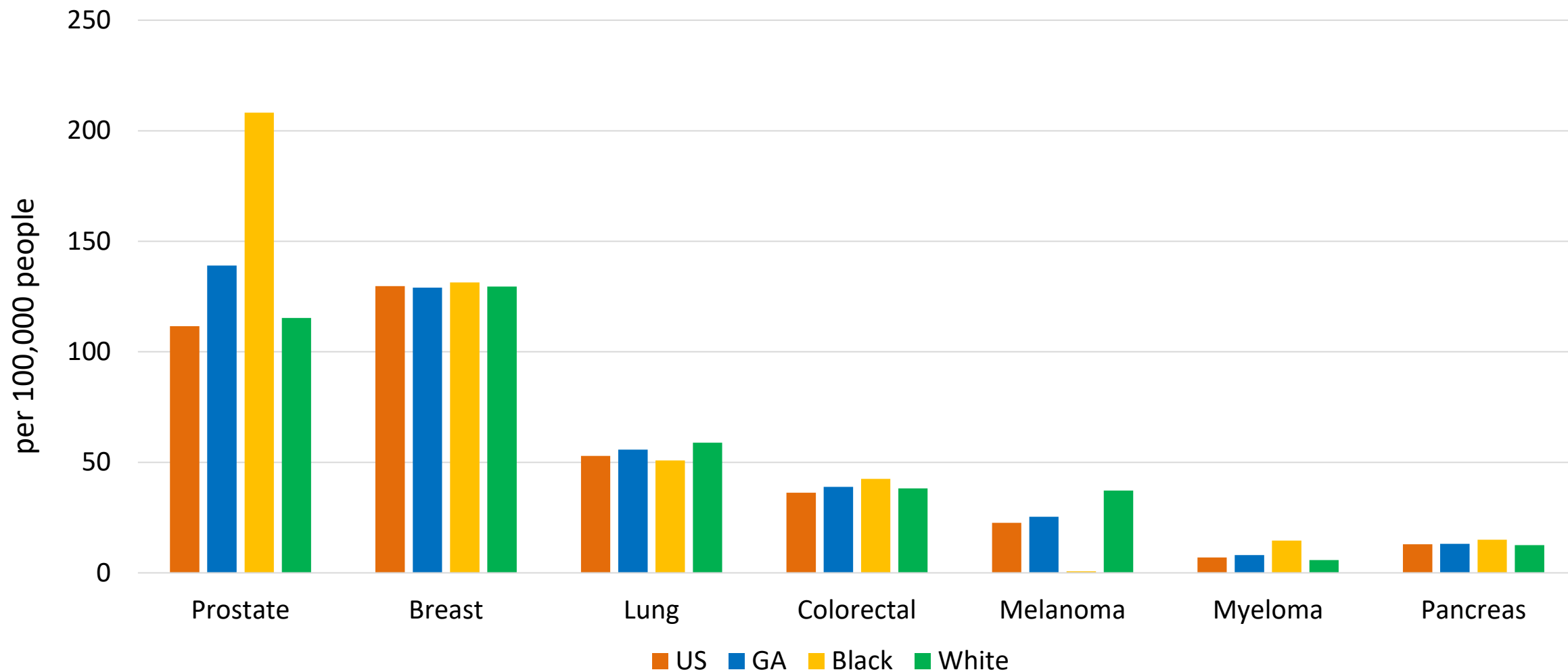


per 100,000 people



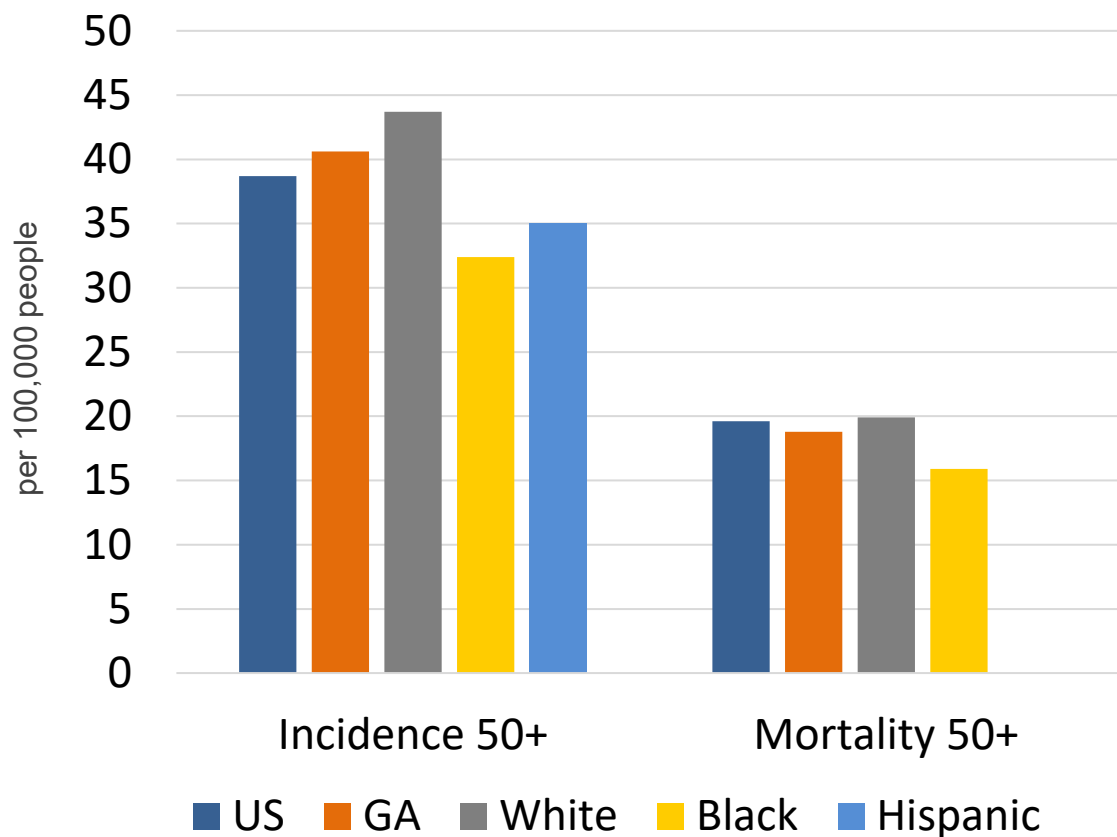
per 100,000 people

Top Cancers - **Incidence** - Males & Females US, Georgia, Blacks, Whites (2019)

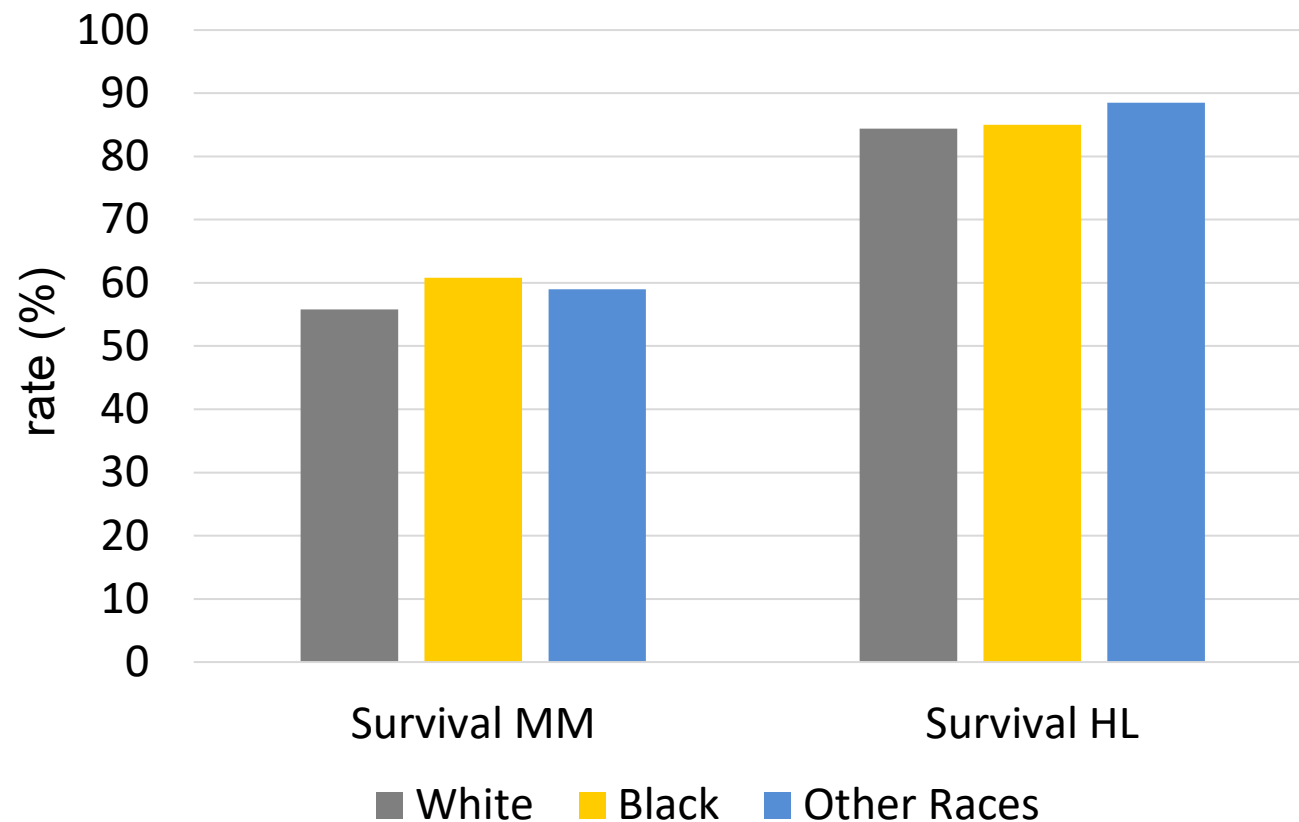


Heme Malignancy Data For US, GA (2015-2019)

Incidence & Mortality, Both Sexes, Age 50+ for Leukemias



Survival, Both Sexes, for Multiple Myeloma & Hodgkin Lymphoma



Change in Leukemia 5-Year Relative Survival Rate Over Time by Age Groups, Race/Ethnicity, & Sex

	1973-1979 (rate %)	2000-2009 (rate %)	2010-2014 (rate %)
AGE			
50-64	43.6	68.4	74.3
65-74	37.5	60.3	65.7
≥75	26.7	45.4	51.1
SEX			
Female	38.1	61.3	67.1
Male	35	62.6	69.6
RACE/ETHNICITY			
Non-Hispanic White	37	63.2	69.7
Non-Hispanic Black	32.4	54.5	61.6
Hispanic (all races)	36.3	64.1	67.7

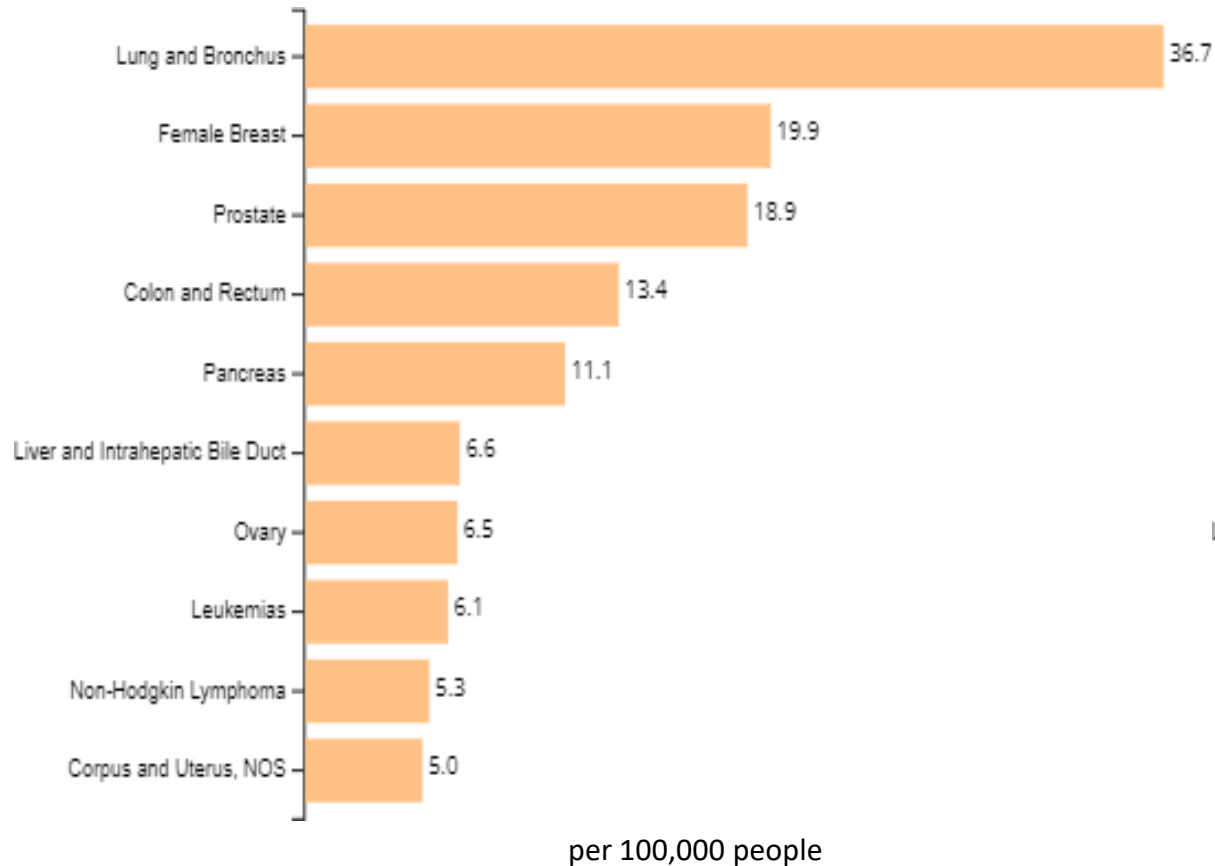
Survival from leukemias has improved overall across racial/ethnic, most age-groups and both sexes during the period of 1973 through 2014. **However, African-American patients and those >75 years experienced the smallest survival gains.**

Multiple Myeloma

- Obesity is an established risk factor for MM
- Obesity is more prevalent in Blacks vs Whites; ~48% of all non-Hispanic Blacks have a higher prevalence of obesity-related medical comorbidities vs 34.5% among all non-Hispanic Whites
- Blacks may be diagnosed with MGUS at higher rates or younger age due to increased medical intervention secondary to obesity & comorbidities
- Blacks may also be UNDER-diagnosed due to inadequate medical care/access
- Question of disparities due to Black race in progression of MGUS to MM needs further research
- Studies are needed that examine molecular mechanisms of clonal evolution early in the continuum of MGUS-SMM-MM stages for high-risk populations, including Blacks and populations with African ancestry
- Investigations that incorporate genomic ancestry would be important to clarify role of genomic ancestry rather than self-identification of race

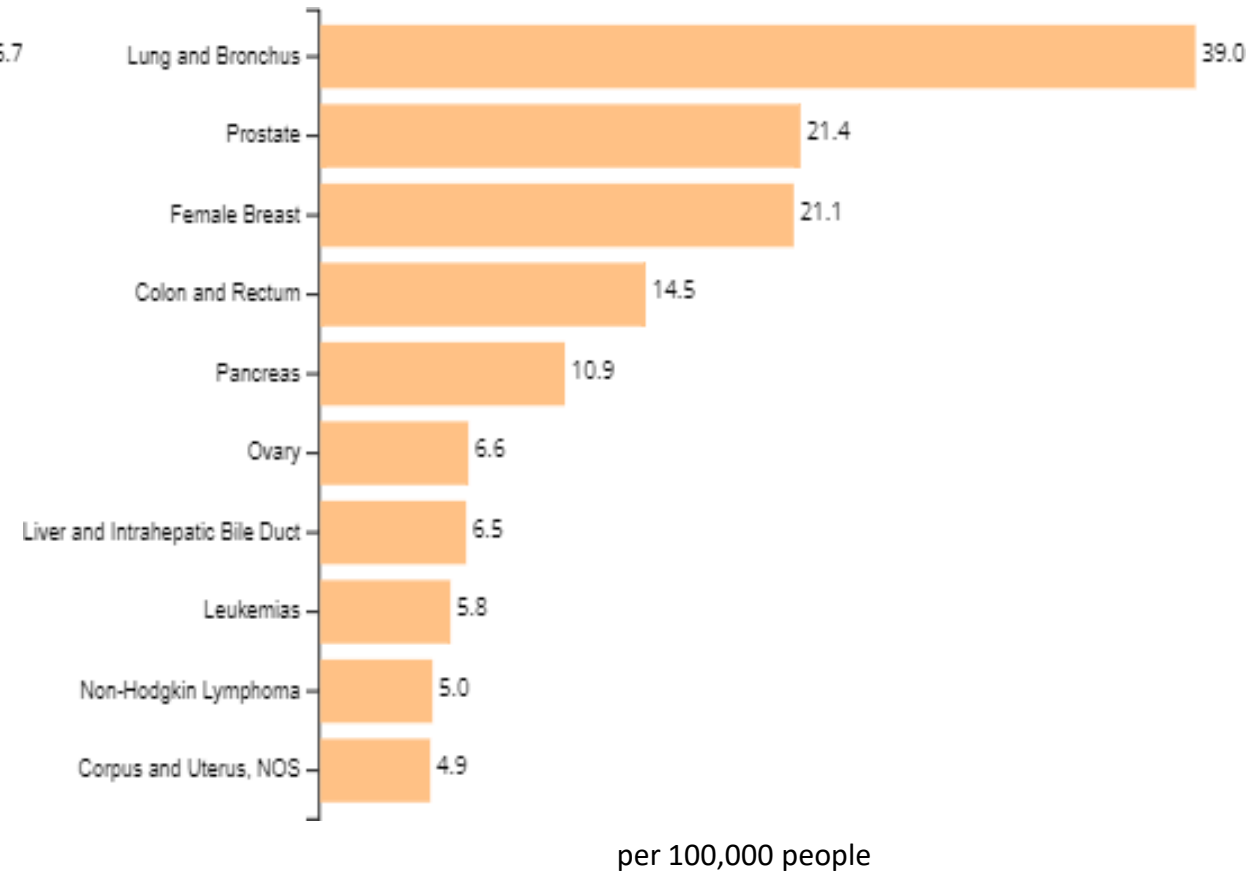
Age-Adjusted **Mortality**- US vs GA Top 10 Cancers – All Races, both sexes

US, All Cancers, 2015-2019

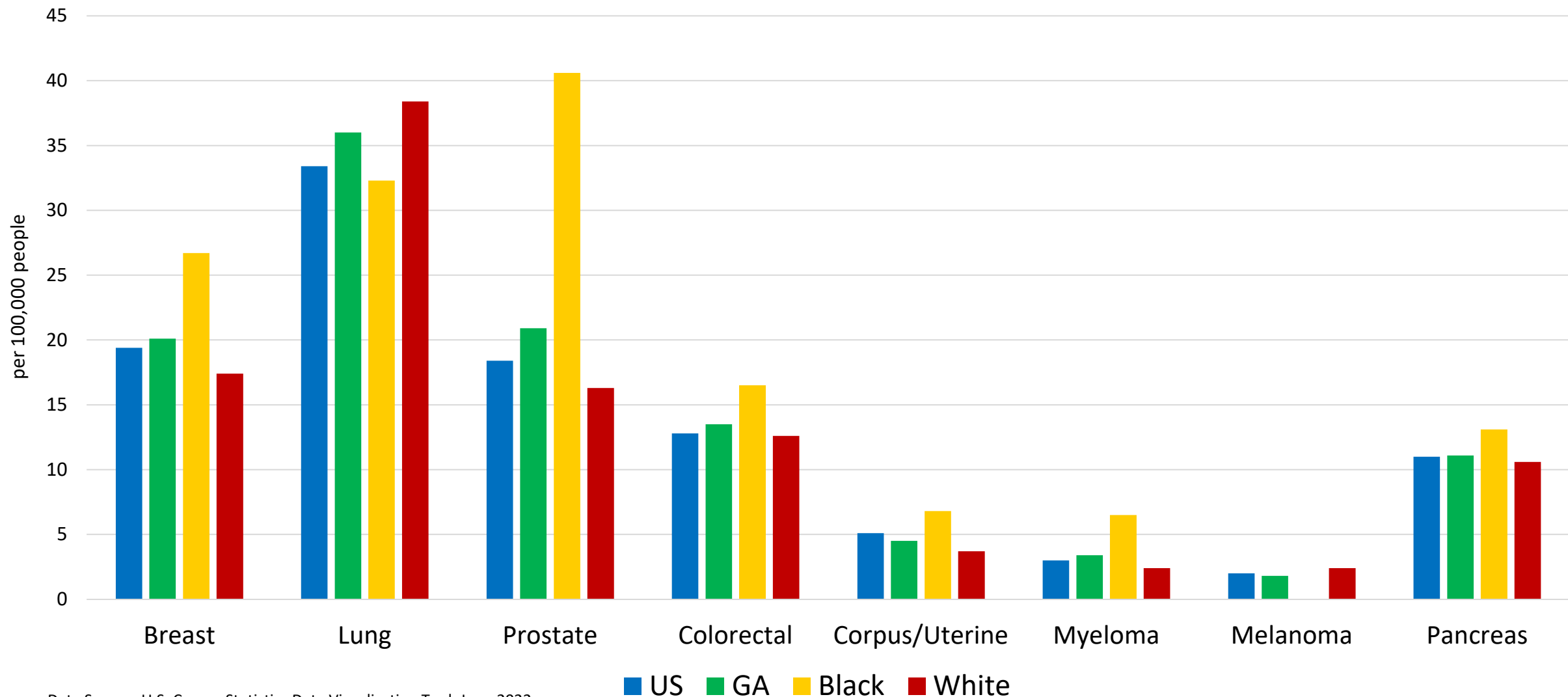


Georgia, All Cancers, 2015-2019

Big 4 Cancers: Excess Mortality in GA



Top Cancers - Mortality - Males & Females US, GA, Blacks, White (2019)

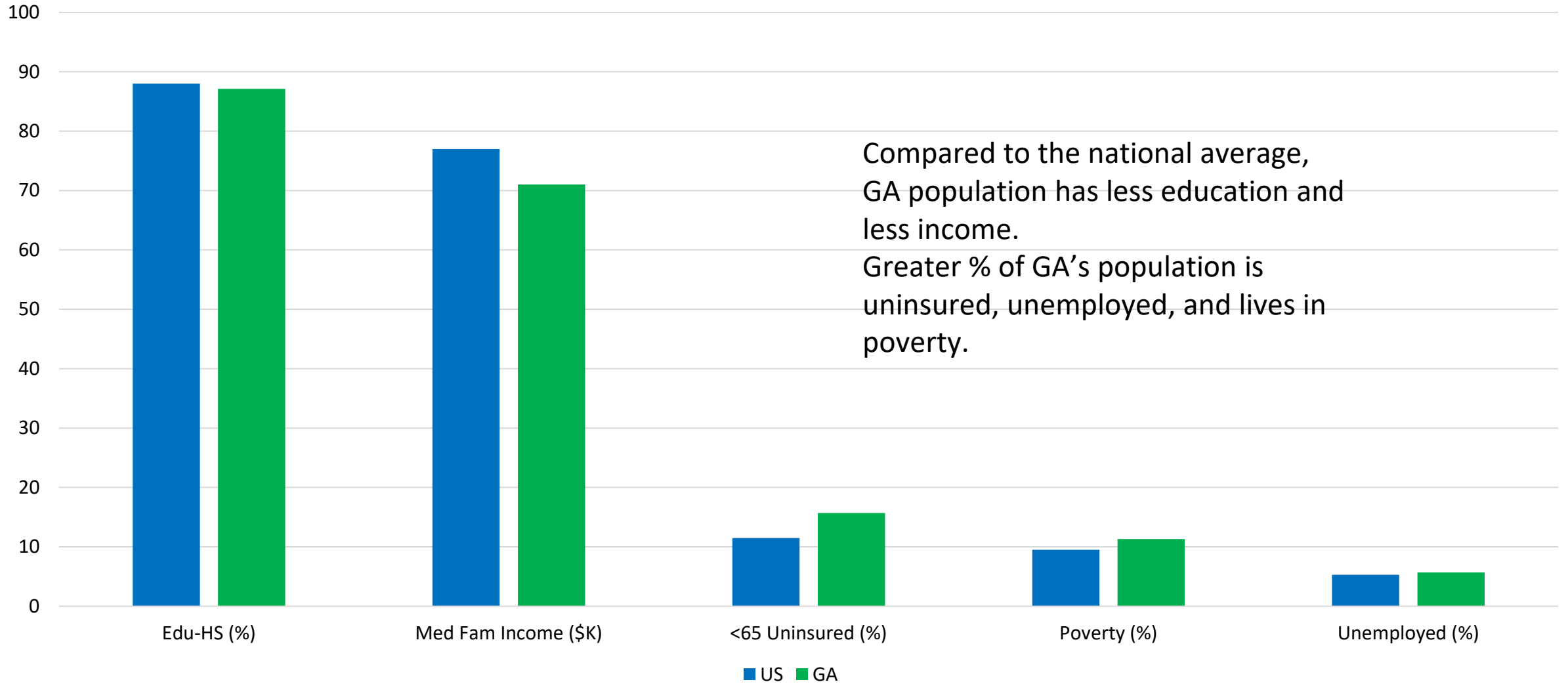


Data Source: U.S. Cancer Statistics Data Visualization Tool, June 2022

Key Cancers Representing **Excess Mortality** in GA Counties:

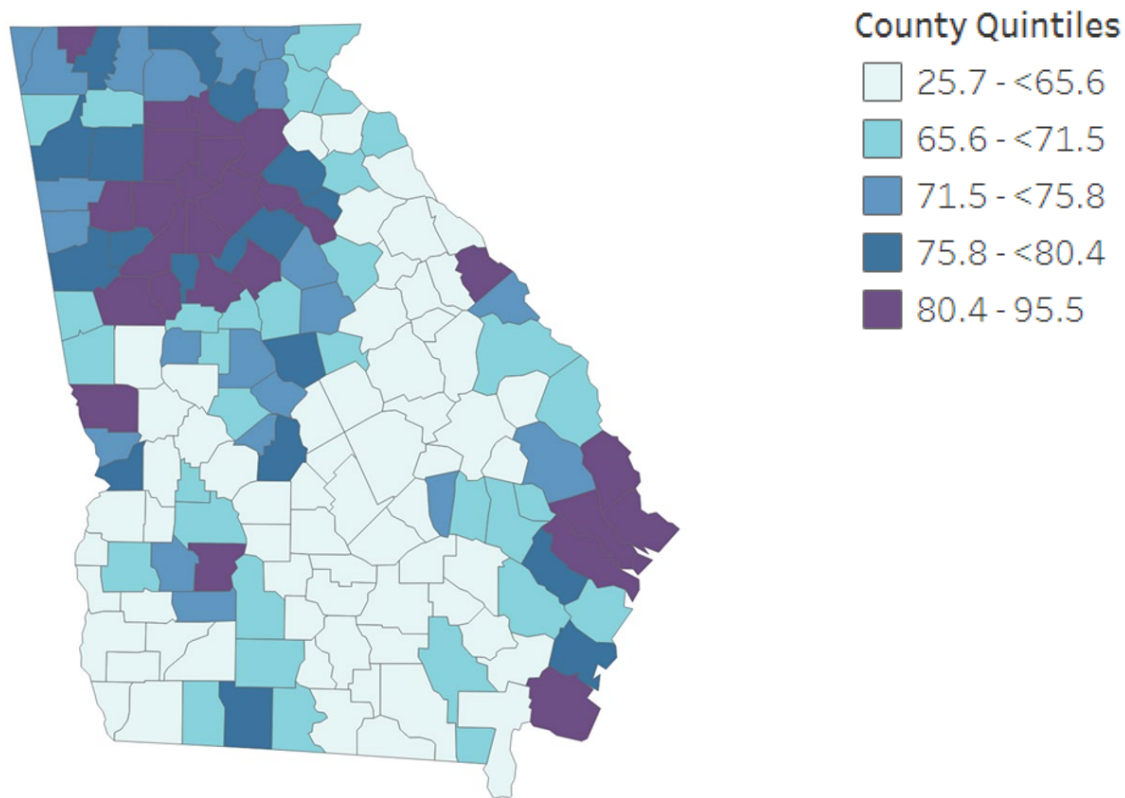
Cancer Type & GA/US Rates	Target Population	County-Rate
Breast 27.5 /27.3	Black females	Meriwether 48.5; Thomas 41.0; Spalding 35.1
Colorectal 18.4 /18.0	Blacks, both sexes	Peach 36; Jefferson 33.2; Hall 30.5; Bulloch 28
Lung 37/40	Blacks, both sexes	Warren 95; Elbert 72.6; Grady 67; Walton 65
Melanoma 2.9 /2.6	Whites, both sexes	Catoosa 6.5; Gordon 6; Muscogee 4.7; Walton 4
Oral Cavity 2.8 /2.5	Whites, both sexes	Whitfield 4.6; Clayton 4.6; Bartow 4.1
Cervix 2.3 /2.2	All races, females	Richmond 3.9 (5.2 Blacks); Muscogee 3.8
Pancreas 11/13.2	All races, both sexes, all ages	Jefferson 23.6, Wayne 20.1, Bryan 17.9, Coffee 16.6
Pancreas (Black only), 65+ 73.8/75.3	Blacks only, both sexes, 65+	Fayette 131.3, Newton 120.8, Chatham 105.3

Social Determinants of Health - US & GA (2019)



Social Determinant of Health

Access to Any Broadband (including cellular), GA



The metro Atlanta area and many parts of coastal GA have a greater percentage of households with access to broadband. Counties with lower rates ($\leq 50\%$) of access to broadband include:

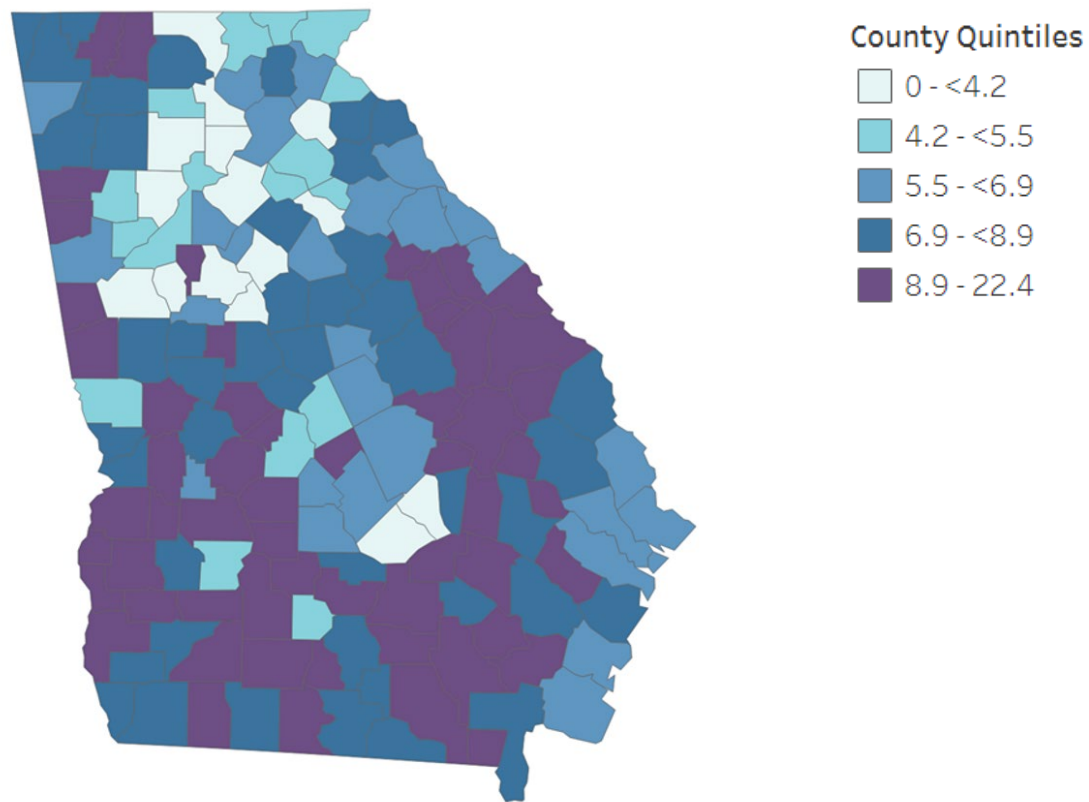
1. Telfair
2. Wheeler
3. Taliaferro
4. Warren
5. Wilkes
6. Echols
7. Clinch
8. Hancock
9. Baker
10. Miller

Note: For any broadband, including cellular, higher percentages are better. For the remaining items (no computing service, smartphone only, percent in poverty), lower percentages are better.

Data Source: AHRQ SDOH Database (Beta version), from American Community Survey 5-year files, 2014-2018.

Social Determinant of Health

Smartphone Only, No Other Device, GA



Rural areas of east and south GA have a greater % of residents owning a smartphone only, and no other computing device. Counties with a higher % rate of having a smartphone only include:

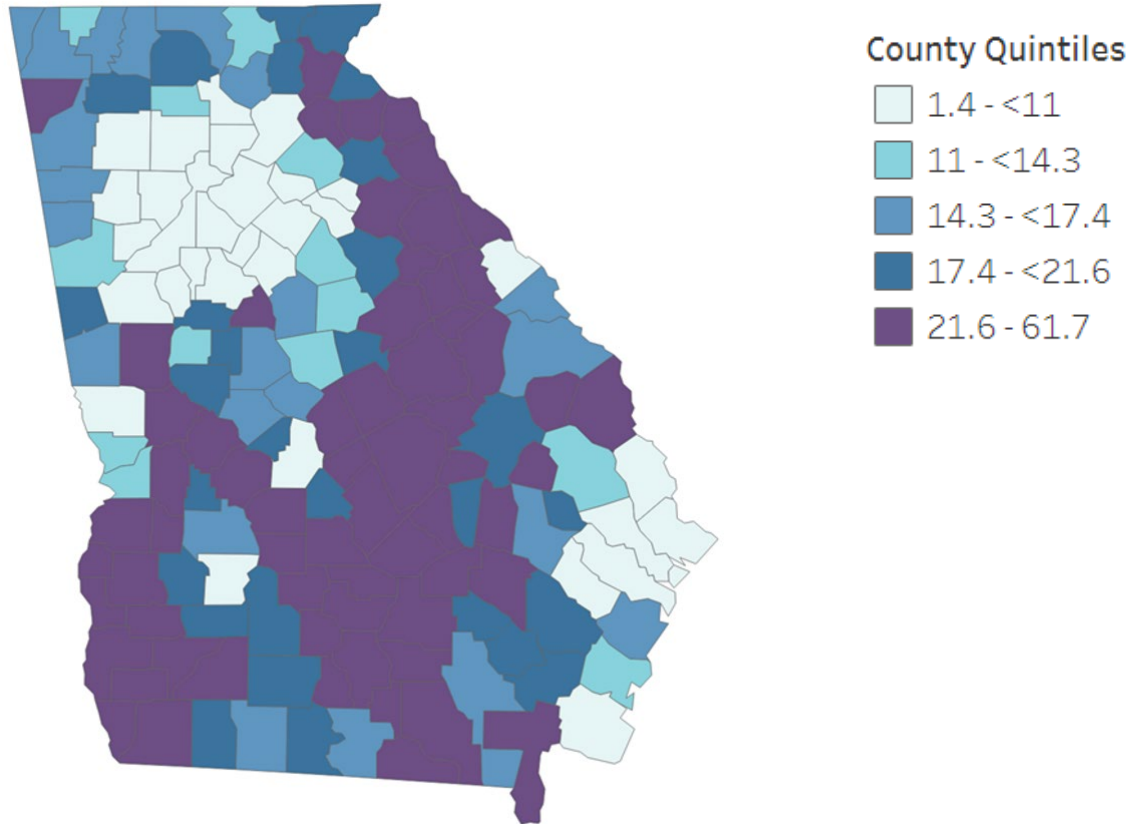
1. Webster
2. Warren
3. Jefferson
4. Atkinson
5. Stewart
6. Clay
7. Glascock
8. Evans
9. Randolph
10. Colquitt

Note: For any broadband, including cellular, higher percentages are better. For the remaining items (no computing service, smartphone only, percent in poverty), lower percentages are better.

Data Source: AHRQ SDOH Database (Beta version), from American Community Survey 5-year files, 2014-2018.

Social Determinant of Health

No Computing Device, GA



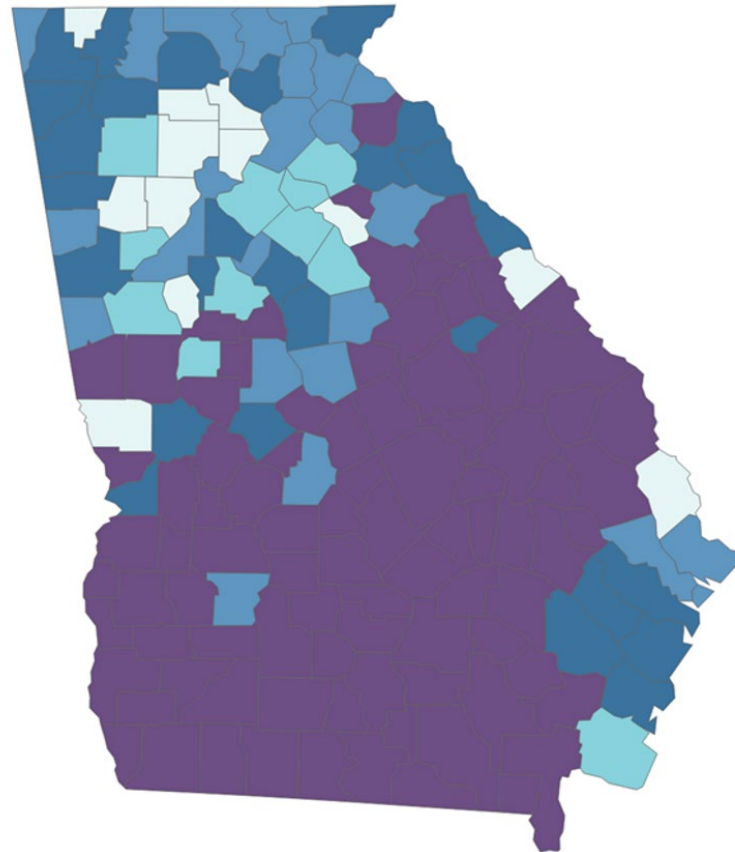
A higher percentage of households in rural GA do not own a computing device, such as smartphone, laptop, tablet, or computer compared to metropolitan areas.

Note: For any broadband, including cellular, higher percentages are better. For the remaining items (no computing service, smartphone only, percent in poverty), lower percentages are better.

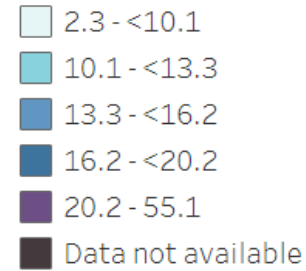
Data Source: AHRQ SDOH Database (Beta version), from American Community Survey 5-year files, 2014-2018.

Social Determinant of Health

Percent in Poverty, GA



County Quintiles



Many southern GA and eastern GA counties have higher rates of poverty.

Highest % of poverty in the following counties:

1. Clay (41.11%)
2. Clinch (39.20%)
3. Randolph (36.99%)
4. Stewart (36.99%)
5. Turner (35.26%)
6. Candler (32.80%)
7. Terrell (31.88%)
8. Ben Hill (31.59%)
9. Clarke (31.33%)
10. Crisp (30.85%)

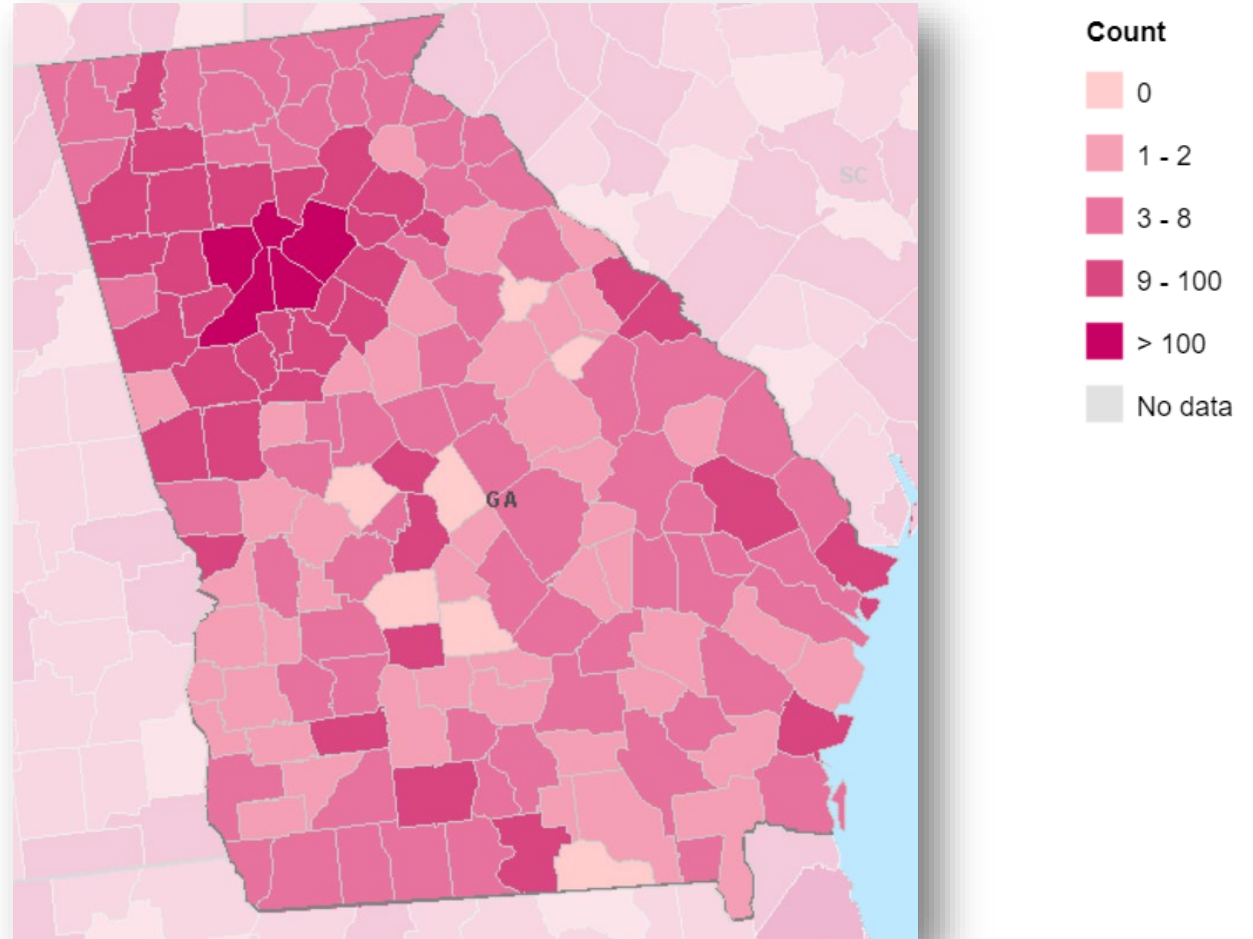
Social Determinants of Health- Food Environment

Grocery Stores (2016)

Metropolitan areas have a greater number of grocery stores compared to non-metro areas.

In 2016, there were seven counties without a grocery store within the county.

1. Crawford
2. Dooly
3. Echols
4. Glascock
5. Taliaferro
6. Twiggs
7. Wilcox



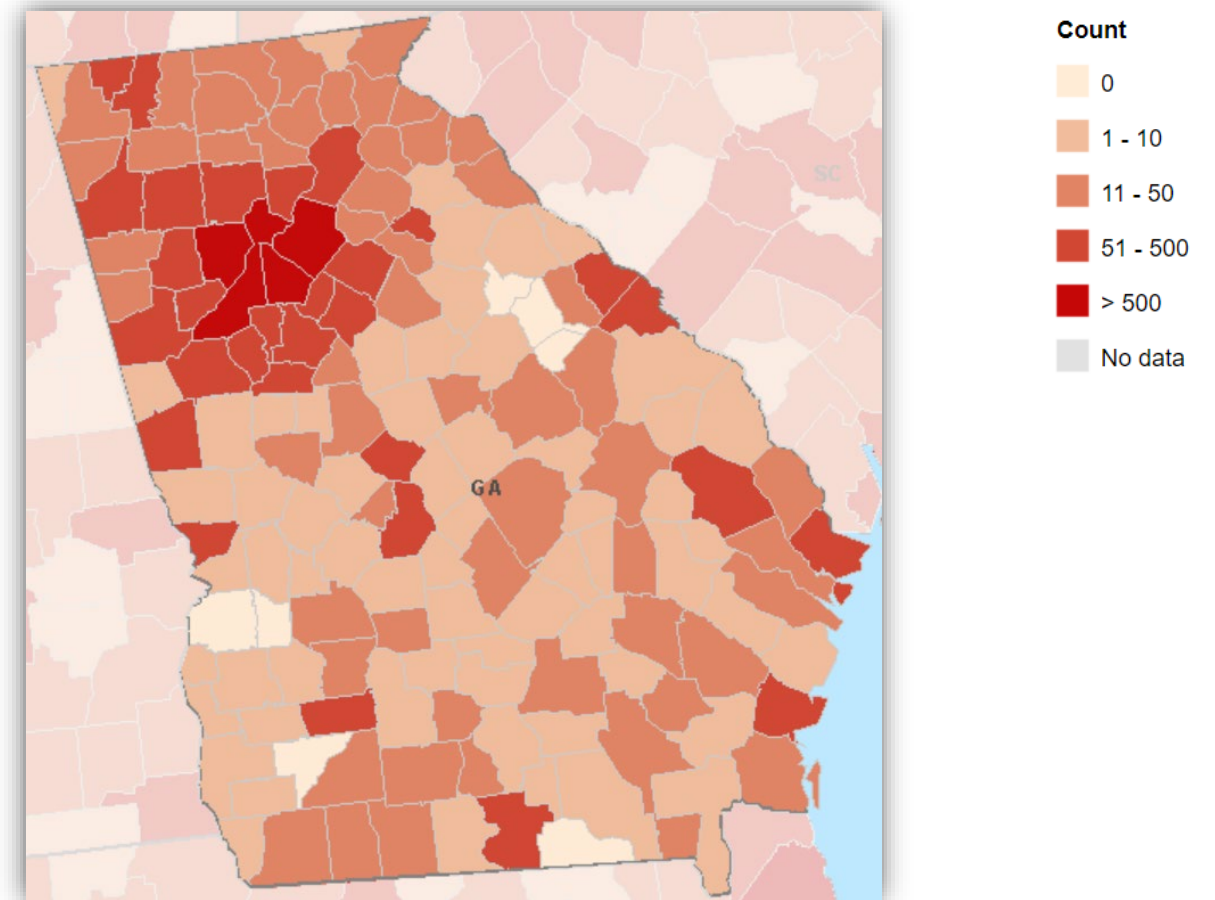
Social Determinant of Health- Food Environment

Fast Food Restaurants (2016)

In 2016, four of the seven counties with no grocery store had at least one fast food restaurant within the county.

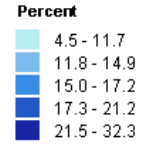
- Crawford (3)
- Dooly (6)
- Twiggs (2)
- Wilcox (1)

The **number of fast-food restaurants** in metropolitan counties (with >100 stores) is roughly **5x** the **number of grocery stores**.

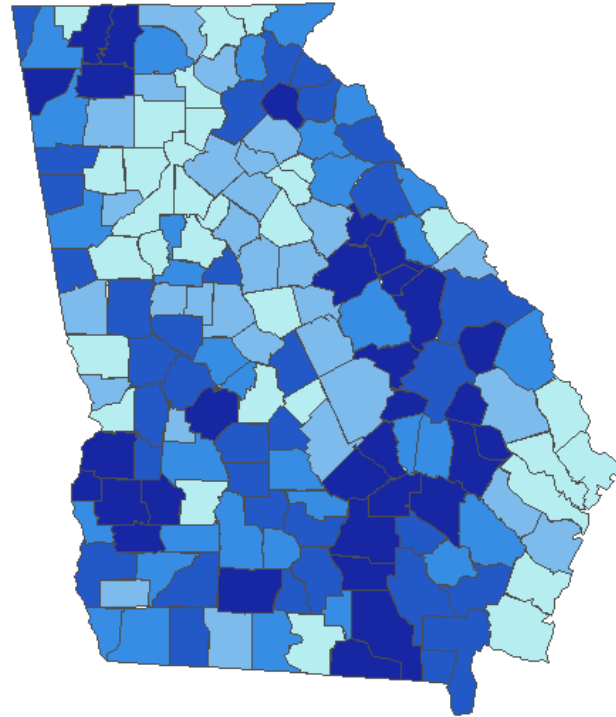


Social Determinant of Health- Education

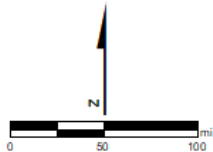
Less Than High School Diploma



Legend
— County



As shown, regional clusters of rural Georgia have a higher percentage of adults with less than a high school diploma.



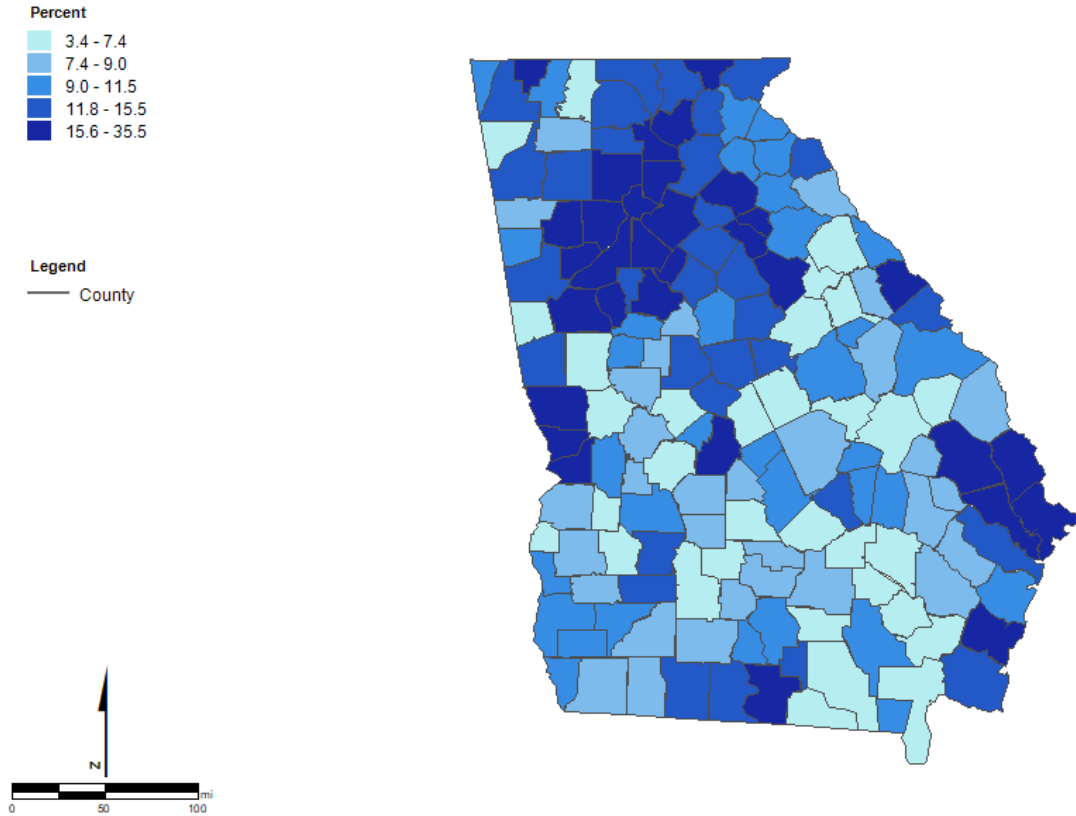
Created using the OASIS Map-Your-Own-Data Mapping Tool
Georgia Department of Public Health
Office of Health Indicators for Planning (OHIP)
Data supplied by Map Author

Map Created: 10/6/2022 1:48:54 PM
Data Classification Method: Quantile

Data Source: American Community Survey, 2020
Map author: EM

Social Determinant of Health- Education

Percentage of Population with a Bachelor's Degree (ages 25 and over)

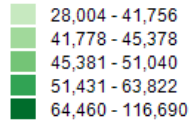


Metropolitan areas of Georgia have a higher percentage of their adult population completing postsecondary education earning at least a Bachelor's degree.

Social Determinant of Health- Income

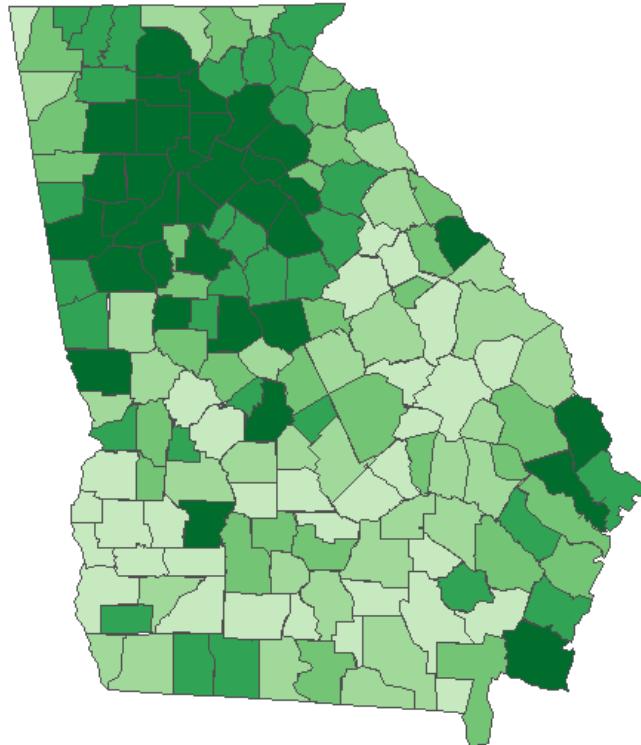
Median Household Income

Number

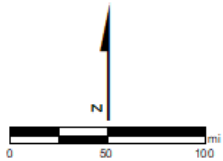


Legend

County

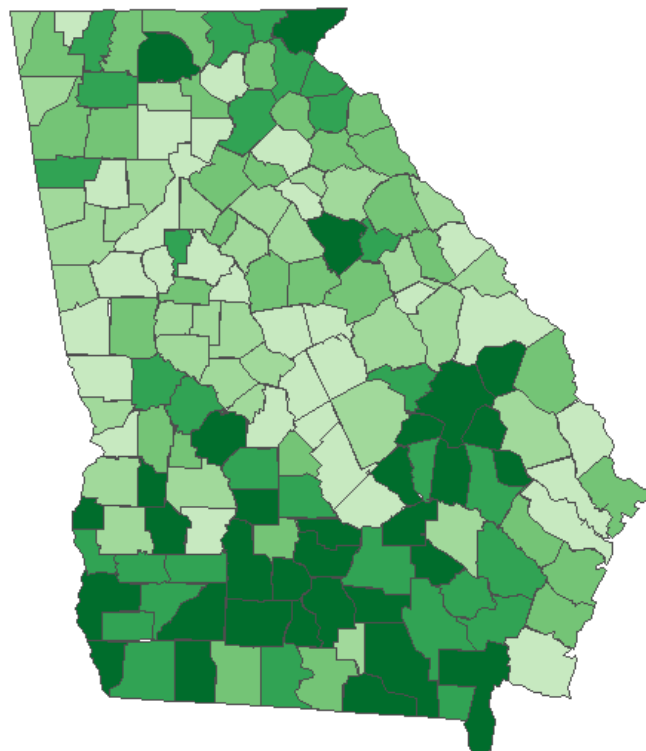
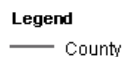
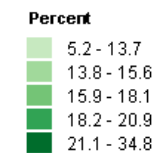


The median household income is higher in metropolitan areas of Georgia, mainly the metro Atlanta area.

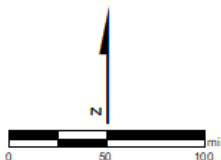


Social Determinant of Health- Insurance

Percent of Uninsured Below Age 64

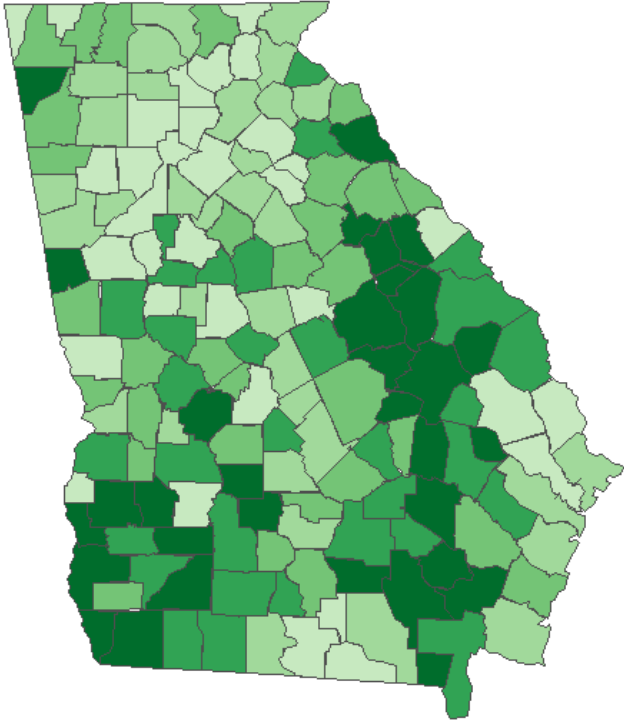
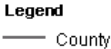
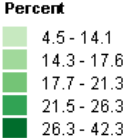


In rural south and southeast Georgia, there is a higher percentage of the population without health insurance.

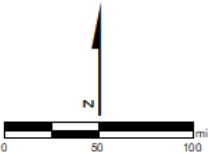


Social Determinant of Health- Insurance

Percent of Medicaid Below Age 64

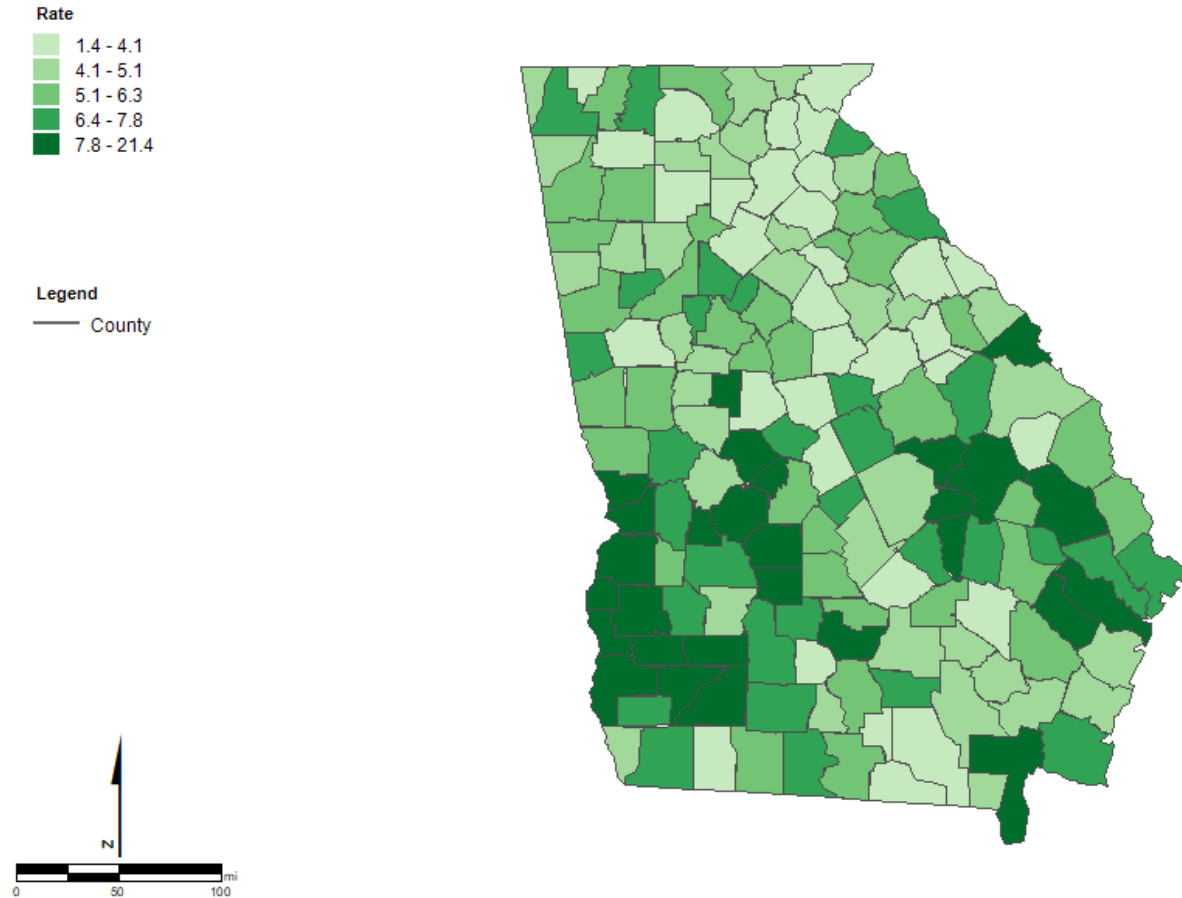


Several counties in east, southeast, and southwest Georgia have a higher percentage of their adult population under age 64 with Medicaid.



Social Determinant of Health- Employment

Unemployment Rate



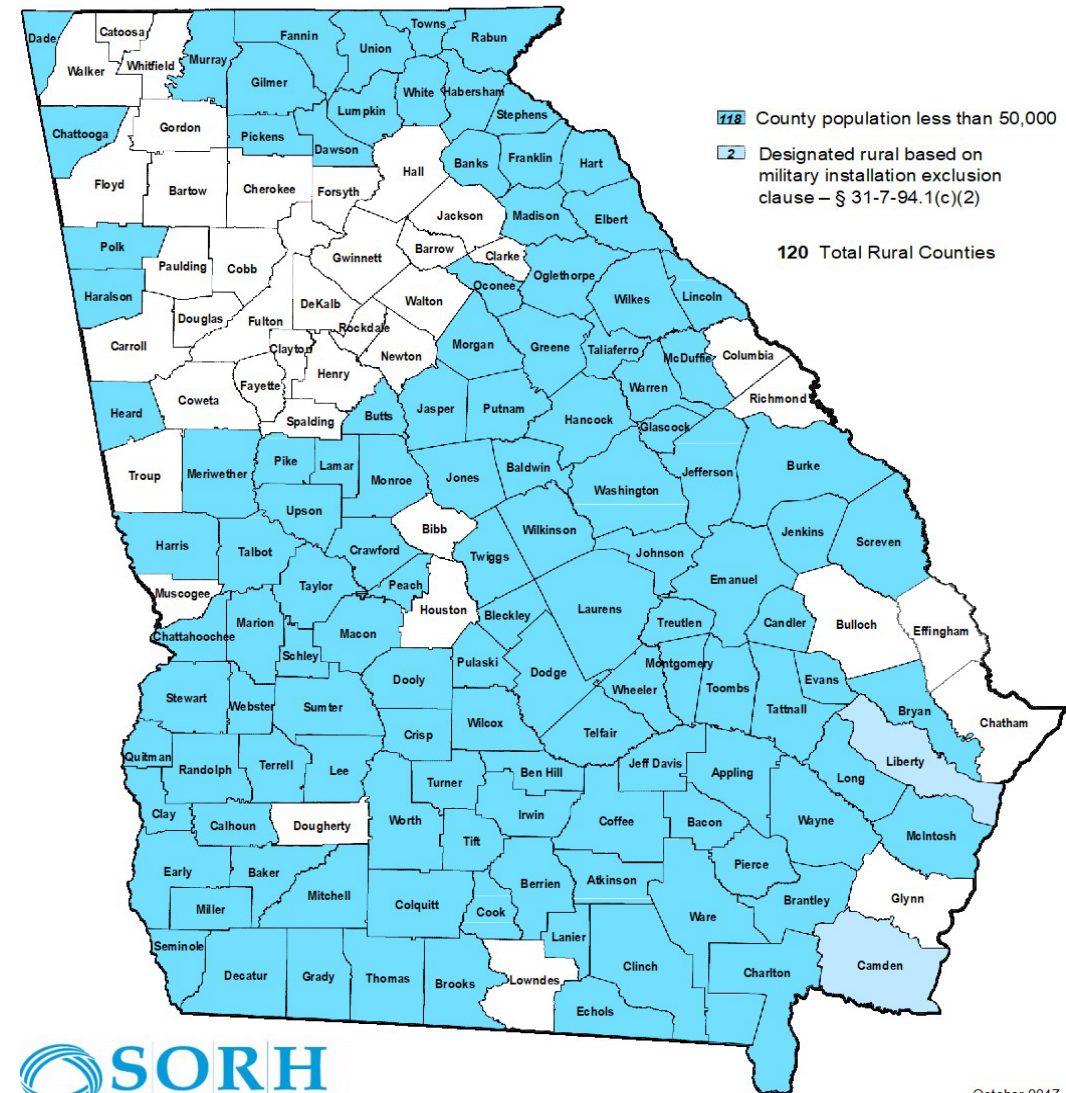
In Georgia (2020), the unemployment rate was higher in the southwest region as well as parts of east region of the state.

Georgia Rural Counties

Rural Hospital Organization Assistance Act of 2017

Georgia is a Rural State

- 78% of state qualifies as rural
- Rurality is often indicator or predictor of disparities and worse outcomes, regardless of race, ethnicity, or insurance



Rurality in Georgia (2015-2019)

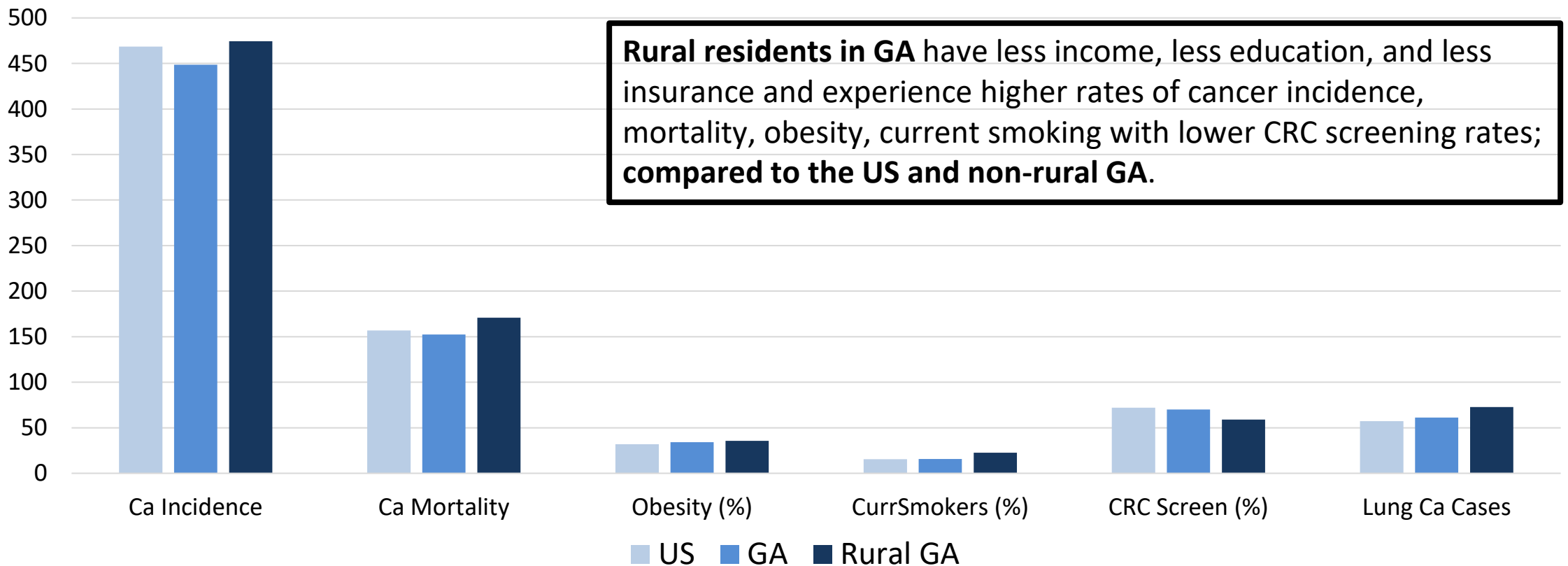
2.3M Georgians reside in rural areas; 31% are age 55+ years

69% of rural GA students eligible for free/reduced lunch (56% GA; 42% US)

Rural per capita income=\$25K (GA=\$32K; US=\$35K)

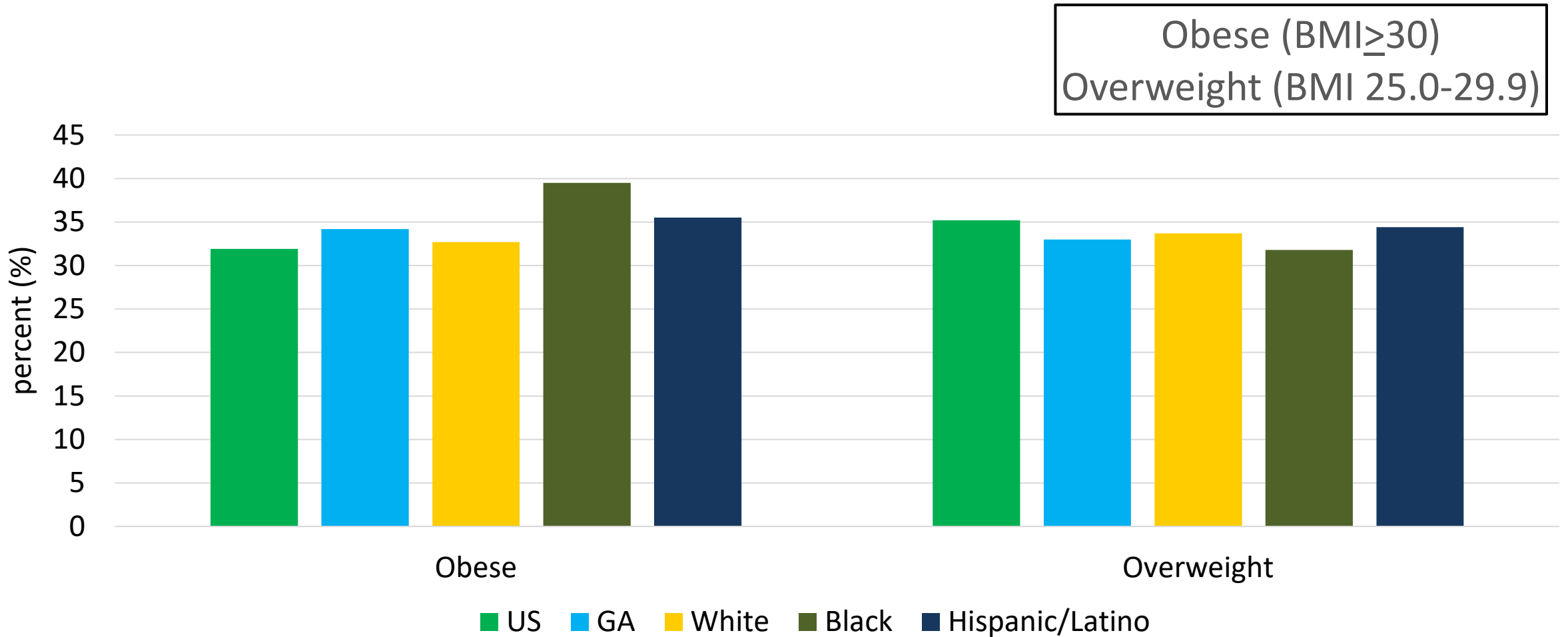
Education <HS: Rural=16.7% (GA=12.1%; US=11.5%)

Uninsured: Rural=14% (GA=13%; US=8.7%)

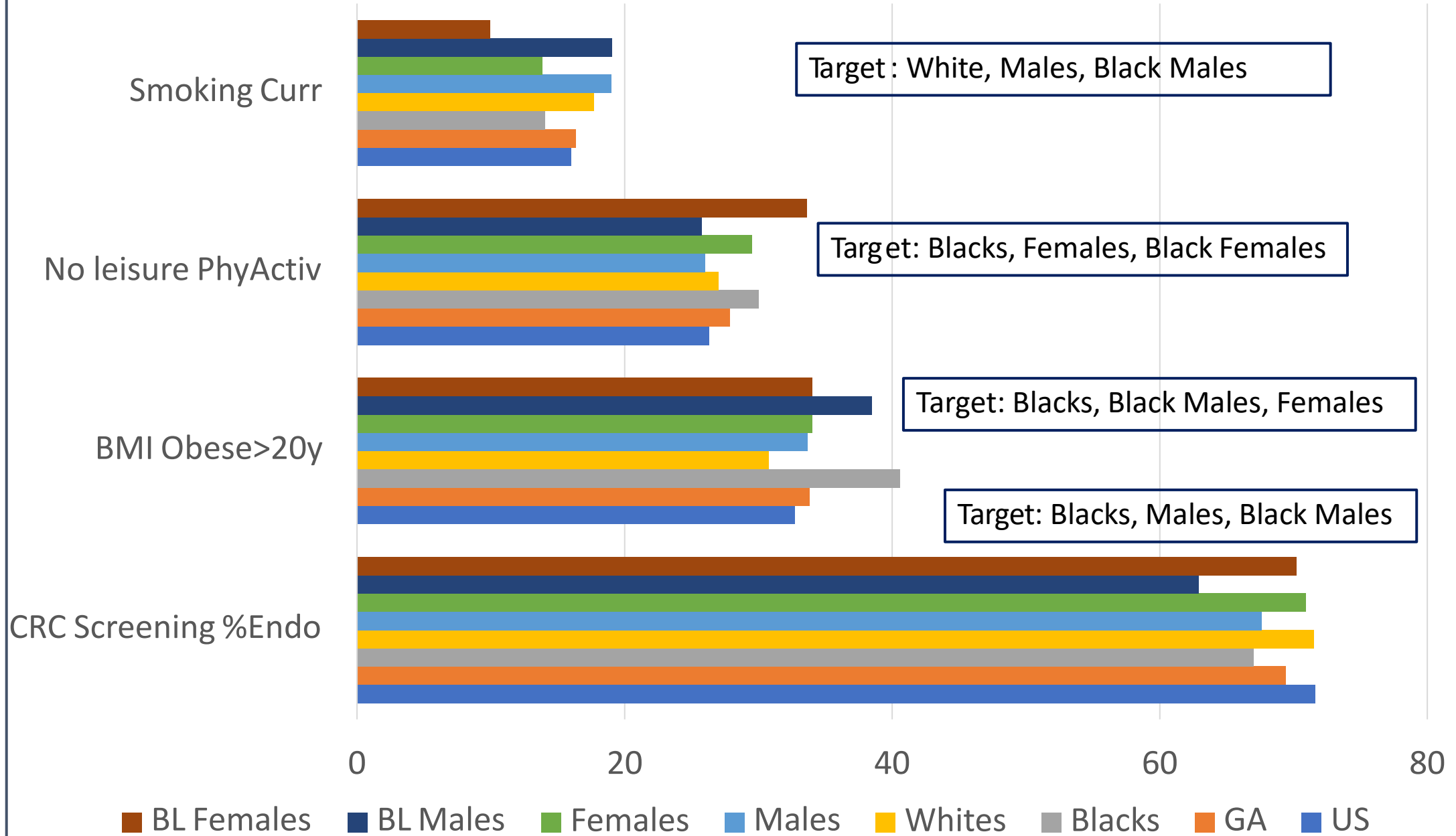


Georgia Health Measures	2020 Value for GA	Rank in US States
Behavioral		
High School Graduate (% of students)	80.6%	41
Obesity (% of adults)	32.5%	30
Physical Inactivity (% of adults)	26.2%	37
Smoking (% of adults)	16.1%	25
Behaviors (all behavior measures)		31
Clinical Care		
Low birthrate (% of live births)	9.9%	47
Mental health providers (#/100,000)	137.3	46
Primary Care Physicians (#/100,000)	123.9	41
Clinical Care (all clinical care measures)		45
Outcomes		
Cancer deaths (per 100,000)	194.8	30
Disparity in health status (% point difference)	26.8%	30
Premature deaths (yrs lost <age 75/100,000)	8243	34
All Outcome Measures		38
Overall Health Ranking in GEORGIA		40

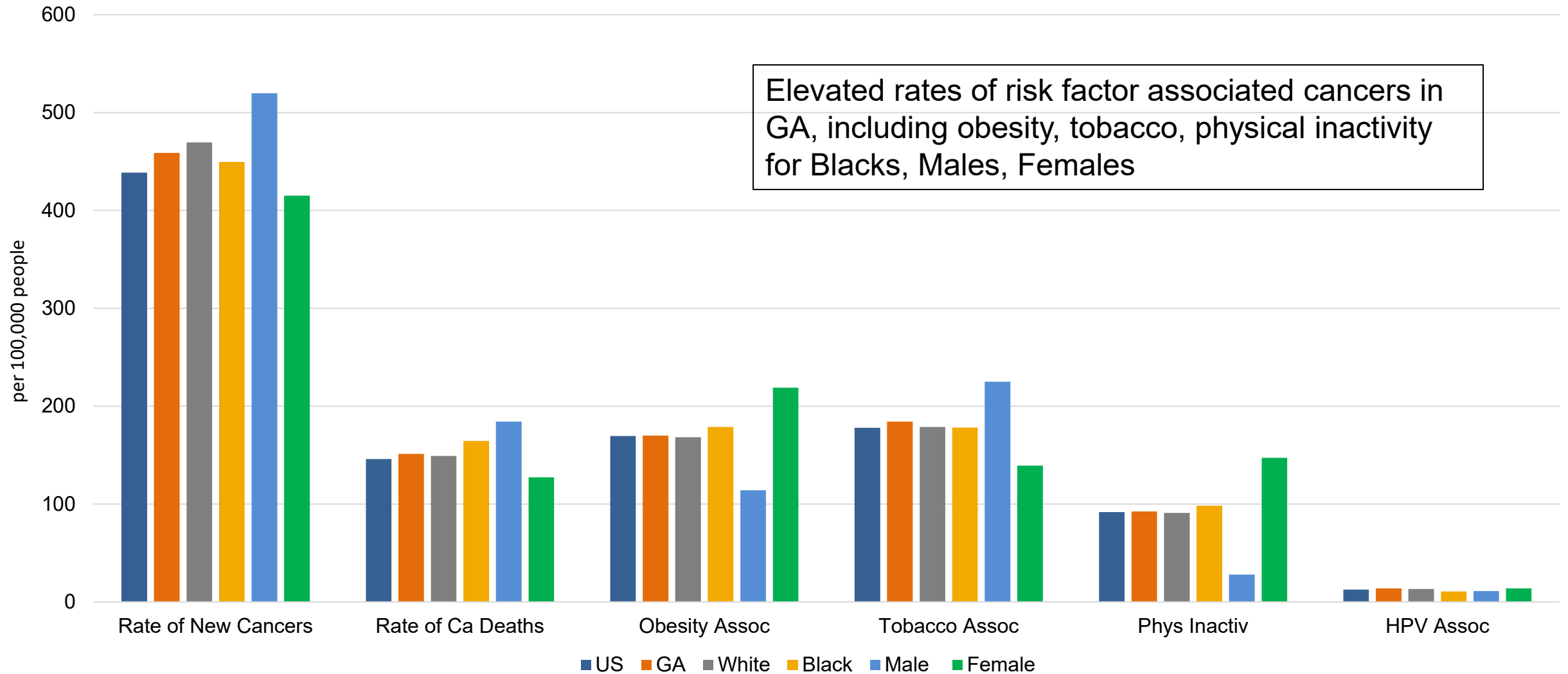
Obesity in US & GA, By Race & Ethnicity, 2020



Screening & Risk Factors: US, GA, By Sex, By Race

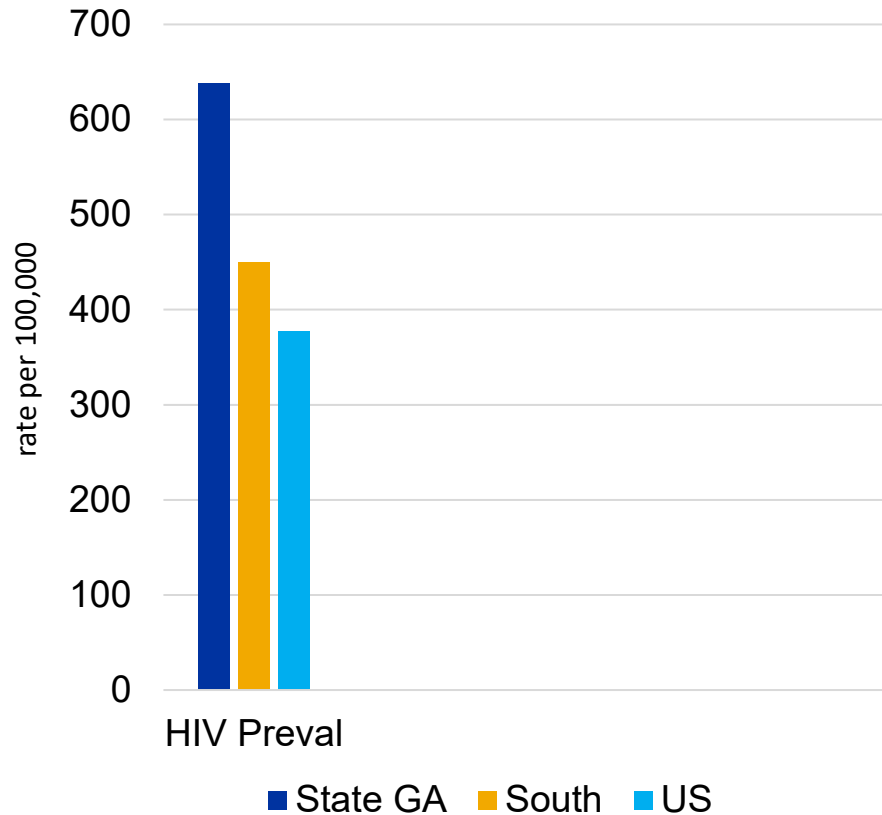


Rates Of New Cancers, Cancer Deaths & Risk Factor-associated Cancer Rates: US, GA (2019)



HIV IN THE US, THE SOUTH, AND GEORGIA (2019)

- Of the 36,528 new HIV diagnoses in the US (2019), 52% were in the South.
- In GA, PLWH are 76% male, 68% Black, 54% aged >45 years
- NEW dx of HIV: 72% Black, 10% Hispanic



In Georgia:

Rate of **Black males** living with HIV dx is **6x** that of **White males**.

Rate of **Hispanic males** living with HIV dx is **2.5x** that of **White males**.

Rate of **Black females** living with HIV dx is **12x** that of **White females**.

Rate of **Hispanic females** living with HIV dx is **3.9x** that of **White females**.

PLWH are at increased risk for non-AIDS defining cancers & at increased risk for dying from cancer. Cancer is the #1 cause of mortality among PLWH.

19x ↑ risk of anal ca; **3x** ↑ risk of liver ca; **2x** ↑ risk of lung & oral cancers; **8x** ↑ risk for Hodgkin lymphoma

Summary: Winship Catchment Area Assessment – Cancer Burden

- Cancer Burden: Age-adjusted overall **cancer incidence**: Top 10 cancers in GA same as in US, with excess incidence only for prostate, breast, lung, colorectal, melanoma, kidney, and leukemia.
 - **Blacks** have higher incidence of breast, prostate, uterine, myeloma & pancreatic ca in GA
 - **Whites** have higher incidence of lung ca in GA
- Cancer Burden: Age-adjusted overall **cancer mortality**: Excess mortality in GA for Big 4 Cancers vs US (lung, breast, prostate, CRC). Specific examples include:
 - **GA Black women** experience **36% increase** in **breast ca mortality** vs overall US rate
 - **Black men in GA** experience **>2x** the **mortality** rate from **prostate cancer** compared to US prostate ca rates
 - **Blacks in GA** have a **24% increase** in **mortality** for both **pancreatic** and **colorectal** cancers compared to the US mortality rates overall for these cancers
 - **Blacks in Warren County** are reported to have **lung cancer mortality** rates that are **2.33x** the US overall lung ca mortality rates
 - **Blacks in Fayette County** have **1.77x greater mortality** from **pancreatic cancer** vs Blacks in rest of GA and **11.9x mortality rate** vs all others in GA who die from pancreatic cancer

Summary: Winship Catchment Area Assessment – Social Determinants of Health (SDOH)

- Georgia residents have less income, education, insurance, access to healthcare, & employment vs US
- Elevated rates of risk factor-associated cancers in GA, including obesity, tobacco, physical inactivity for Blacks, Males, Females
- For Health Measures, GA ranks #31 for all behaviors, #45 for all clinical care, #38 for all outcomes, and **#40 in US for overall health ranking**

Catchment Area-Relevant Research – High Priority Research Targets

- **Cancers:** Breast, prostate, lung, colorectal; pancreatic especially among Blacks; myeloma, leukemias
- **Role of Risk Factors in Tumorigenesis, Recurrence, Outcomes:** Smoking, obesity, physical activity, mechanistic pathways driven by stress, oxidation, methylation, gene expression profiles
- **Special Populations:** Rural (possible exposures), HIV+ malignancies



Data Resources for Catchment Area Assessment

- **State Cancer Profiles** (CDC, NCI) – incidence, mortality, demographics, risk factors by tables, maps <https://statecancerprofiles.cancer.gov/>
- 2015-2019 Cancer Mortality data, 2014-2018 Cancer Incidence data
- Also includes 2020 BRFSS screening & risk factor survey
- 2019 American Community Survey Data
- Screening and risk factor data
- Smoking statistics

Data Resources for Catchment Area Assessment

- **US Cancer Statistics – Data Visualizations (CDC)**
<https://gis.cdc.gov/Cancer/USCS/#/AtAGlance/>
- Specific cancers, incidence, mortality, by sex, race, ethnicity (2015-2019 data)
- Stage at diagnosis, screening & risk factors, prevalence, trends
- CDC - Chronic Disease Indicators - <https://www.cdc.gov/cdi/>
- State level data for chronic diseases, including cancer, and risk factors
- Includes screening data (mammography, Pap test, colorectal screening)

Additional Data Sources Relevant to Catchment Area Assessment

- Behavioral Risk Factor Surveillance System (BRFSS)
- 2020 data: <https://www.cdc.gov/brfss/>
- Includes phone survey data for states related to risk behaviors, e.g., fruit and vegetable consumption, physical activity, use of screening and prevention services
- Report physical activity levels in each of Georgia's 159 counties and estimate the overall burden of inactive and irregularly active lifestyles on deaths, hospitalizations, and hospital charges for related health conditions.

Additional Data Resource for Catchment Area Assessment

- Social Determinants of Health (AHRQ)- poverty and access to internet by county <https://www.ahrq.gov/sdoh/data-analytics/sdoh-tech-poverty.html>
- American Community Survey 5-year files, 2014-2018
- County level data for percent in poverty, any broadband, smartphone, and computing device
- Food Environment Atlas (ERS,USDA)- provides environmental factors to accessing healthy food within communities <https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas/>
- Access to food, food insecurity, and community characteristics

Additional Data Sources Relevant to Catchment Area Assessment

- CDC, National Center for HIV, Viral Hepatitis, STD, and TB Prevention
- 2019 data: <https://www.cdc.gov/nchhstp/atlas/index.htm>
- National, regional, state and county level data
- HIV diagnosis by age, sex, race/ethnicity
- HIV prevalence by age, sex, race/ethnicity

Georgia Department of Health

- Georgia Cancer Data Report (2016)
- Georgia Childhood Cancer Report (2016)
- Cancer Program and Data Summary (2013)
- Reports of specific cancers (breast, cervical, ovarian, colorectal, prostate)
- Georgia Tobacco-Related Cancers Report
- HPV Report in Georgia
- <https://dph.georgia.gov/cancer-reports>

Georgia Dept of Health- Georgia Cancer Plan

- Most recent publicly available is 2014-2019
- Includes sections on Tobacco and Obesity
- HPV Vaccination
- Breast, Cervical Cancer Screening
- Screening for lung, colorectal cancers
- Palliative care
- Overview of Cancer Health Disparities in GA (2018)
- Georgia Cancer Plan logic model (2017)
- <https://dph.georgia.gov/chronic-disease-prevention/cancer-prevention-and-control>

For additional data, resources, or help in catchment area assessment:

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