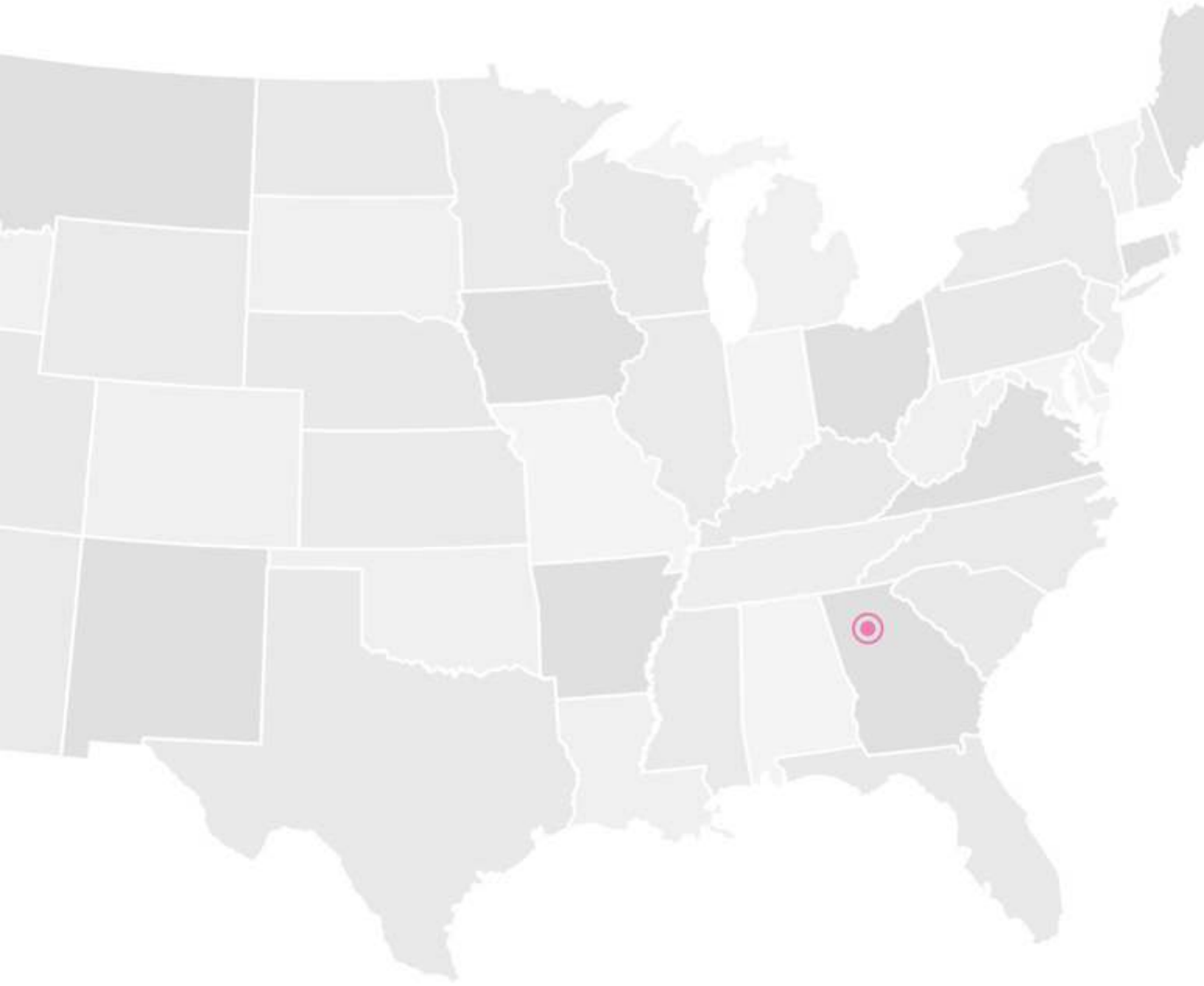
Closing the Breast Cancer Gap:

A Roadmap to Save the Lives of Black Women in America

2021

ATLANTA



Study prepared by Susan G. Komen
with support from John Snow, Inc.

Stand For **H.E.R.**
Health Equity Revolution

susan g. komen.

Acknowledgements

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Komen expresses our deepest gratitude to the resilient and powerful women who shared their journeys, their everyday experiences of racism, their trials and tribulations navigating and negotiating health systems, and the simple pleasures in life from which they draw strength to keep going and caring for one another. We hope the findings synthesized in this report will uplift the human stories behind breast cancer inequities and persuade decision makers to take action and lay the foundation for systems that better serve Black women. We write these findings in honor of the Black women who did not survive their breast cancer journeys, and the countless Black lives lost to pervasive structural racism.

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Executive Summary

About Susan G. Komen

Susan G. Komen® (subsequently referred to as "Komen") is the world's leading nonprofit breast cancer organization, working to save lives by meeting the most critical needs in communities and investing in breakthrough research to prevent and cure breast cancer.

Background and Purpose

Breast cancer is the most common cancer diagnosed among women in the U.S. and is the second leading cause of death among women after lung cancer with women having a one in eight chance of developing breast cancer over the course of their lifetimes. With the increasing availability of screening mammography, earlier detection and improvements in breast cancer treatment, the overall breast cancer mortality rate among women in the United States has declined by 41% from 1989 through 2018 (American Cancer Society, 2019a). However, these trends vary by race and ethnicity.

Research shows that despite recent scientific advancements, there are widespread disparities in breast cancer outcomes between Black women and white women. Breast cancer mortality is about 40 percent higher in Black women than in white women.

About This Report

In 2015, in partnership with Fund II Foundation, Komen launched the African American Health Equity Initiative (AAHEI) – now known as Stand for H.E.R. – to improve breast health equity for Black women. Stand for H.E.R. aims to reduce breast cancer disparities in Black women starting in the 10 U.S. metropolitan areas (referred to throughout this report as MTAs or metro) where the inequities are greatest: Atlanta, GA; Chicago, IL; Dallas-Fort Worth, TX; Houston, TX; Los Angeles, CA; Memphis, TN; Philadelphia, PA; St. Louis, MO; Virginia Beach, VA; and Washington, DC.

Komen engaged John Snow, Inc. (JSI), a public health research and consulting organization, to conduct a landscape analysis in each MTA. The main purpose of each landscape analysis was to understand the underlying causes of breast cancer inequities across the care continuum among Black women, with a focus on systemic and social determinants of health.

The methods involved a literature scan, compiling quantitative data, reviewing federal and state policies, and collecting qualitative data from community members and providers to prepare a landscape analysis report for each of the 10 MTAs.

This study does not attempt to establish causality between underlying risk factors and breast cancer outcomes. Rather, the analysis aims to:

- Elevate key findings regarding the underlying causes for breast cancer inequities across the care continuum among Black women, and

- Offer insights that can inform strategic discussions about strengths, gaps, challenges and opportunities to promote breast health equity and create community- and systems-level change.

Key Findings

- The mortality rates in Cobb, DeKalb, Fulton and Fayette counties are higher for Black women than white women living in these counties. Notably, these counties account for 58% of the MTA's Black population. Spalding, Rockdale and Douglas counties have smaller Black populations than most other counties in the MTA and are the only places where white women are more likely to die from the disease than Black women.
- Throughout the Atlanta MTA, Black women are more likely to die from breast cancer than their white counterparts.
- At the same time, Black women in the MTA are also more likely to receive screening mammograms and get diagnosed with the disease at lower rates.
- Although there is no uniform trend in breast cancer incidence rates within the Atlanta MTA, with notably higher rates among white women in some counties and higher rates among Black women in others, it is notable that Clayton, DeKalb and Fulton counties report rising rates of breast cancer incidence and *in situ* incidence among Black women (see glossary for *in situ* and invasive breast cancer definitions). In all but two counties (Clayton and Coweta) where data are available, the late-stage incidence rate is higher among Black women than white women.
- Decades of discriminatory practices have led to striking residential segregation in the Atlanta MTA.
- Clayton County reports the highest percentage (48%) of the population below 200% of the Federal Poverty Line (FPL) in the MTA, and the highest percentage (20%) of the population that is uninsured. Fulton County reports the highest percentage (21%) of Black women over the age of 45 who live under the poverty line.
- Only one county in the MTA, Fayette County, has an insured rate (94%) that is higher than the national average, while the remaining 15 counties have insurance rates that are lower than the national average.
- In October 2020, Georgia was approved for a Section 1115 waiver for partial Medicaid expansion for people earning up to 100% FPL, an estimated $12,000 annually. This partial expansion does not fully insure the estimated 255,000 people in the coverage gap.
- Clayton, Cobb, DeKalb and Douglas counties all reported the highest percent of Black women feeling like their experiences seeking health care have been worse than other races at 13%.

Recommendations

The following strategies, research and interventions are recommended to better understand and address the complexity of the root causes of breast cancer inequities in the Atlanta MTA (full details provided in the recommendations section of this report). The recommendations follow a systems framework:

- the **micro** level (the level at which patients and providers interact),
- the **mezzo** level (the level at which systems interact), and
- the **macro** level (the policy level).

Micro-Level Strategies

- Increase access to culturally responsive patient navigators.
- Implement a culturally relevant health promotion campaign intended to increase knowledge of screening guidelines.
- Increase education about family health history to identify high-risk families and offer genetic counseling and testing to meet the need.
- Support implicit bias trainings for providers, administrators and health care staff.
- Expand financial assistance programs for Black women diagnosed with breast cancer.

Mezzo-level Strategies

- Support Quality Improvement (QI) initiatives along the breast cancer continuum of care.
- Increase access to integrated care to improve the breast cancer care experience.
- Fund collaborative initiatives at the community level to address economic insecurity of Black women in the Atlanta MTA.

Macro-level Strategies

- Support a root-cause analysis to uncover the drivers of late-stage diagnosis rates.
- Support efforts to develop guidelines and policies that address disproportionate breast cancer mortality among Black women, including increased genetic counseling and testing services.
- Advocate to expand Medicaid eligibility and eliminate burdensome restrictions that would limit Medicaid access to Medicaid in Georgia.
- Conduct an analysis of state policies to identify those that present barriers to high-quality care in the Black community.

This landscape analysis report conveys comprehensive issues facing Black women in this MTA. These recommendations are intended to be a call to action for all community-based organizations, policymakers, hospitals, healthcare providers, faith-based organizations, civic leaders and citizens. The recommendations are offered as evidence-informed interventions to reduce breast cancer disparities among Black women.

About Susan G. Komen

Susan G. Komen® (subsequently referred to as "Komen") is the world's leading nonprofit breast cancer organization, working to save lives by meeting the most critical needs in communities and investing in breakthrough research to prevent and cure breast cancer. Komen has an unmatched, comprehensive 360-degree approach to fighting this disease across all fronts and supporting millions of people in the U.S. and in countries worldwide. Komen advocates for patients, drives research breakthroughs, improves access to high-quality care, offers direct patient support and empowers people with trustworthy information. Founded by Nancy G. Brinker, who promised her sister, Susan G. Komen, that she would end the disease that claimed Suzy's life, Komen remains committed to supporting those affected by breast cancer today, while tirelessly searching for tomorrow's cures.

Introduction

Breast cancer is the most common cancer diagnosed among women in the United States and is the second leading cause of death among women after lung cancer. Women in the U.S. have a one in eight chance of developing breast cancer over the course of their lifetimes. With the increasing availability of screening mammography screening, earlier detection and improvements in breast cancer treatment, the overall breast cancer mortality rate among women in the U.S. declined by 41% since 1989 (American Cancer Society, 2019a).

However, these trends vary by race and ethnicity. Research shows that despite recent scientific advancements, there are widespread racial health disparities in breast cancer comparing Black women to white women.

Black women are, on average, 40% more likely to die of the disease as compared to white women (Howlader et al., 2018). The five-year breast cancer survival rate for Black women is 83%, compared to 92% for white women (Howlader et al., 2020). While the overall breast cancer incidence among Black women is lower than among white women, incidence among non-Hispanic Black women younger than 40 is higher than the same age group of non-Hispanic white women from 2013-2017 (Noone et al., 2017). The incidence rates are higher among Black women under age 40 (where incidence is the number of new cases that develop in a specific time period) (American Cancer Society, 2020). Black women are also more likely than white women to be diagnosed with aggressive breast cancers, such as Triple Negative Breast Cancer (TNBC) and inflammatory breast cancer, and are more likely to be diagnosed at a later stage, when treatments are limited, costly and the prognosis is poor (American Cancer Society, 2019; Williams et al., 2016).

Black women are, on average, 40% more likely to die of the disease as compared to white women (Howlader et al., 2018). The five-year breast cancer survival rate for Black women is 83%, as compared to 92% for white women (Howlader et al., 2020).

Through Stand for H.E.R., Komen seeks to improve breast health equity by reducing late stage diagnosis and mortality for Black women starting in the 10 U.S. metropolitan areas (referred to throughout this report as MTAs or metro) where Black breast cancer disparities are the greatest. These MTAs include Atlanta, GA; Chicago, IL; Dallas-Fort Worth, TX; Houston, TX; Los Angeles, CA; Memphis, TN; Philadelphia, PA; St. Louis, MO; Virginia Beach, VA; and Washington, DC.

As part of this effort, Komen engaged JSI, a public health research and consulting organization, to conduct a landscape analysis in each MTA to better understand the underlying causes of breast cancer inequities across the care continuum among Black women. Findings from each landscape analysis report serve to inform the design and implementation of Komen's long-term and cross-sector collaborative efforts, as well as serve as a call to action for all community-based organizations, policymakers, hospitals, healthcare providers, faith-based organizations, civic leaders and citizens to engage in evidence-informed strategies to reduce breast cancer disparities among Black women.

Project Objectives

The specific objectives of the landscape analyses are:

- To understand breast cancer disease burden in each MTA by describing breast cancer measures (incidence, in situ incidence, late-stage diagnosis and mortality) and other key health metrics (such as life expectancy and age-adjusted mortality), comparing Black women to white women, per data availability.[1]
- To describe systemic barriers, including adverse social determinants of health (SDOH), and other socioeconomic and contextual factors that may contribute to breast cancer inequities, comparing counties within each MTA.
- To explore community members' perspectives regarding their experiences with breast cancer screening and treatment, and their perceptions regarding barriers/facilitators to obtaining care, factors contributing to breast cancer inequities, and suggestions for advancing breast health equity.
- To explore health care provider perspectives regarding individual, community and health systems factors contributing to breast cancer inequities, along with their recommendations for system-level change.
- To identify policy, systems and environmental (PSE) level strategies that may help to mitigate breast cancer inequities and achieve Komen's goals of improving breast health equity.

This report summarizes findings from the landscape analysis conducted for the Atlanta MTA. The report details key findings pertaining to the project objectives as stated above. Findings are organized into two sections: Section 1 describes the breast cancer disease burden in the MTA through secondary data and community member perspectives. Section 2 explores the systemic barriers and underlying root causes, including experiences of racism and adverse SDOH that may be driving breast cancer inequities. The final section includes recommendations to reduce breast cancer disparities and advance breast health equity.

[1] As defined in the Abbreviations & Glossary, these terms are defined as follows: Incidence is defined as the number of new cases of a disease that develop in a specific time period; in situ means "in place," and in the context of breast cancer means a condition where abnormal cells are found in the milk ducts or lobules of the breast, but not in the surrounding breast tissue. Late-stage diagnosis indicates that breast cancer has spread beyond the breast to lymph nodes, surrounding tissue or other organs in the body (most often the bones, lungs, liver or brain).

Given the goals and methods traditionally used in a landscape analysis project, the intent is not to provide conclusive evidence or to establish causality between particular factors and breast cancer outcomes among Black women. Rather, the analysis aims to:

- elevate key findings regarding the underlying causes for breast cancer inequities across the care continuum among Black women, and
- offer insights that can inform strategic discussions about strengths, gaps, challenges and opportunities to promote breast health equity and create community- and systems-level change.

These recommendations are intended to be a call to action for all community-based organizations, policymakers, hospitals, healthcare providers, faith-based organizations, civic leaders and citizens. The recommendations are offered as evidence-informed interventions to reduce breast cancer disparities among Black women.

Methods

The methods used to prepare this landscapte analysis report include a literature scan, compiling quantitative data, reviewing federal and state policies, and collecting qualitative data from community members and healthcare providers.

This study defines the Atlanta MTA in accordance with the U.S. Office of Management and Budget's 2015 definition of central counties in the Atlanta-Sandy Springs-Roswell metropolitan statistical area (MSA). This area encompasses the city of Atlanta and comprises Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Newton, Paulding, Rockdale, Spalding and Walton counties in Georgia (Office of Management and Budget, 2010; U.S. Census Bureau). Data are generally unavailable at the MSA-level of geographic specificity, so researchers collected and analyzed data at the county level (a sub-MSA unit) for most indicators. State- and national-level data (both super-MSA units of measure) were collected for measures related to breast cancer disease burden to provide additional points of comparison.

TABLE 1. ATLANTA METRO AREA DATA METHODS AND SOURCES

Demographics		
Subcategory	**Indicator**	**Source**
Population	Total Population	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Sex	Percent of Population that is Male	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Sex	Percent of Population that is Female	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Age	Percent of Population that is Under Age 18	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Age	Percent of Population that is Age 18-64	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Age	Percent of Population that is Over Age 65	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Race	Percent of Population that is White	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Black	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Asian	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is American Indian Or Alaska Native	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Native Hawaiian or Other Pacific Islander	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Some Other Race	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Two or More Races	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Ethnicity	Percent of Population that is Hispanic/Latino	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Ethnicity	Percent of Population that is White Not Hispanic	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Race	Percent of Population that is Minority Race	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Target Population	Number of Black Women Over Age 45	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Social Determinants of Health

Subcategory	Indicator	Source
Social Vulnerability	Social Vulnerability Index Score	2016 Social Vulnerability Index (US Centers for Disease Control and Prevention)
Economic Security	Percent of Population that is Uninsured	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Economic Security	Percent of Population Below 200% FPL	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Economic Security	Percent of Black Women Over Age 45 Who Live Below Poverty Level	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Food Security	Location of Food Deserts	2019 Food Access Research Atlas (US Department of Agriculture, Economic Research Service)
Food Security	Percent of Population that is Food Insecure	2019 County Health Rankings (County Health Rankings)
Food Security	Percent of Total Population With Limited Access to Healthy Foods	2019 County Health Rankings (County Health Rankings)
Food Security	Percent of Black Households Receiving SNAP/EBT	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Education	Percent of Population Over Age 25 That Has High School Degree or Higher	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Education	Percent of Population Over Age 25 That Has Bachelor's Degree or Higher	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Education	Percent of Black Women Over Age 25 Without a High School Degree	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Transportation	Percent of Households Without a Vehicle	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Transportation	Percent of Total Population Commuting More Than 45 Minutes to Work	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Transportation	Percent of Total Population That Commutes to Work Using Public Transportation	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Transportation	Percent of Population Commuting to Work by Foot/Bike/Other	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)
Housing Stability	Percent of Households That Are Housing-Cost Burdened	2016 Comprehensive Housing Affordability Strategy dataset (US Department of Housing and Urban Development)
Housing Stability	Proportional Change in Population with a Bachelor's Degree or Higher	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau); American Community Survey 2008-2012 5-Year Estimates (US Census Bureau
Housing Stability	Percent Change in Median Household Income	American Community Survey 2013-2017 5-Year Estimates (US Census Bureau); American Community Survey 2008-2012 5-Year Estimates (US Census Bureau
Segregation	Black/White Dissimilarity Index Score	2019 County Health Rankings (County Health Rankings)
Racism	Location of Redlining	2019 Mapping Inequality Project (University of Richmond)
Racism	Number of Hate Crimes Committed with a Race/Ethnicity/Ancestry Bias Motivation	2017 Hate Crime Statistics (Federal Bureau of Investigation, Uniform Crime Reporting)
Racism	Number of Fair Housing Act Cases Filed with a Race Basis	Fair Housing Act Cases dataset (US Department of Housing and Urban Development, Office of Fair Housing and Equal Opportunity)
Racism	Number of Black Americans Killed By Police	The Counted Database (The Guardian)

Health and Wellness

Subcategory	Indicator	Source
Quality of Life	County Health Rankings Percentile	2019 County Health Rankings (County Health Rankings)
Quality of Life	Percent of Adults Reporting "Fair" or "Poor" Health	2019 County Health Rankings (County Health Rankings)
Quality of Life	Average Number of Poor Physical Health Days	2019 County Health Rankings (County Health Rankings)
Quality of Life	Average Number of Poor Mental Health Days	2019 County Health Rankings (County Health Rankings)
Quality of Life	Life Expectancy	2019 County Health Rankings (County Health Rankings)

Quality of Life	Life Expectancy for Whites	2019 County Health Rankings (County Health Rankings)
Quality of Life	Life Expectancy for Blacks	2019 County Health Rankings (County Health Rankings)
Quality of Life	Premature Age-Adjusted Mortality	2019 County Health Rankings (County Health Rankings)
Quality of Life	Premature Age-Adjusted Mortality for Whites	2019 County Health Rankings (County Health Rankings)
Quality of Life	Premature Age-Adjusted Mortality for Blacks	2019 County Health Rankings (County Health Rankings)
Health Behaviors	Percent of Adults who are Obese	2019 County Health Rankings (County Health Rankings)
Health Behaviors	Percent of Adults who Drink Excessively	2019 County Health Rankings (County Health Rankings)
Health Behaviors	Percent of Adults who are Physically Inactive	2019 County Health Rankings (County Health Rankings)

Health Systems

Subcategory	Indicator	Source
Primary Care	Percent of Total Population that is Medically Underserved	HRSA Data Warehouse (US Department of Health and Human Services, Health Resources & Services Administration)
Primary Care	Number of PCPs	2019 County Health Rankings (County Health Rankings)
Primary Care	Persons per PCP	2019 County Health Rankings (County Health Rankings)
Primary Care	Number of "Other" PCPs	2019 County Health Rankings (County Health Rankings)
Primary Care	Persons per "Other" PCP	2019 County Health Rankings (County Health Rankings)
Primary Care	Number of Private PCPs	HRSA Data Warehouse (US Department of Health and Human Services, Health Resources & Services Administration)
Primary Care	Location of FQHCs	HRSA Data Warehouse (US Department of Health and Human Services, Health Resources & Services Administration)
Primary Care	Location of Hospitals	HRSA Data Warehouse (US Department of Health and Human Services, Health Resources & Services Administration)
Cancer Care	Location of Comprehensive Cancer Centers	National Cancer Institute
Cancer Care	Location of Mammography Facilities	American College of Radiology
Cancer Care	Location of Treatment Facilities	American College of Surgeons; Association of Community Cancer Centers
Cancer Care	Location of NCORP Sites	National Cancer Institute
Cancer Care	Number of Mobile Mammography Centers	Google search
Cancer Care	Number of Private Oncologists	Docstop and Healthgrades
Cancer Support	Number of Cancer Coalitions	2015 Affiliate profile files and Google search
Cancer Support	Number of Survivor/Support Groups	2015 Affiliate profile files and Google search

Breast Cancer Disease Burden

Subcategory	Indicator	Source
Prevalence	Prevalence	2017 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

Incidence	Age-Adjusted Incidence Rate	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Incidence	5-year Incidence Rate Trend Direction	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Incidence	Age-Adjusted Incidence Rate for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Incidence	5-year Incidence Rate Trend Direction for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Incidence	Age-Adjusted Incidence Rate for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Incidence	5-year Incidence Rate Trend Direction for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	Age-Adjusted In Situ Incidence Rate	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	5-year In Situ Incidence Rate Trend Direction	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	Age-Adjusted In Situ Incidence Rate for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	5-year In Situ Incidence Rate Trend Direction for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	Age-Adjusted In Situ Incidence Rate for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
In Situ Incidence	5-year In Situ Incidence Rate Trend Direction forBlack Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Age-Adjusted Late-Stage Incidence Rate	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Average Count of Cases that are Late-Stage	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Age-Adjusted Late-Stage Incidence Rate for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Average Count of Cases that are Late-Stage for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Age-Adjusted Late-Stage Incidence Rate for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Late-Stage Incidence	Average Count of Cases that are Late-Stage for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Mortality	Age-Adjusted Mortality Rate	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Mortality	5-year Mortality Rate Trend Direction	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Mortality	Age-Adjusted Mortality Rate for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Mortality	5-year Mortality Rate Trend Direction for White Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Mortality	Age-Adjusted Mortality Rate for Black Women	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

Mortality	5-year Mortality Rate Trend Direction for BlackWomen	2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)
Screening Mammography	Percent of Women Getting Mammograms	2017 County Level Modeled Estimate Combining BRFSS and NHIS (US Centers for Disease Control and Prevention; State Cancer Profiles; National Institutes of Health)

Qualitative Data

Three priority counties for qualitative data collection in the Atlanta MTA were identified based on a review of the quantitative findings: Clayton, DeKalb and Fulton counties. Susan G. Komen Greater Atlanta connected JSI with several Black community partners within the Atlanta MTA including hospitals, community-based organizations (CBOs) and cancer centers. Specific organization names and participant names have been withheld to preserve confidentiality. JSI worked closely with the local Komen teams and community and breast cancer leaders in DeKalb and Fulton counties who led community outreach, engagement and recruitment for the four focus groups. Additionally, Komen Atlanta provided recommendations for health care providers to contact for key informant interviews.

In the Atlanta MTA, a total of four focus groups were conducted among 30 community members. Due to COVID-19, one patient navigator and one survivor focus group scheduled for March 2020 were canceled and were not able to be conducted by the data collection deadline. In addition, no providers agreed to participate in the interviews.

Table 2 summarizes the demographic characteristics of 30 focus group participants, representing both breast cancer survivors and the undiagnosed. Among breast cancer survivors, the majority were above 55 years of age, had insurance (100%), and had been diagnosed with stage 1 breast cancer (42%). Undiagnosed women were younger, mostly in the 25-54 age group, with the majority reporting access to public insurance – Medicaid or Medicare (59%). Non-provider participants were Black. Demographics were not collected for community health navigators, patient navigators or clinical providers.

TABLE 2. ATLANTA METRO AREA QUALITATIVE DATA COLLECTION

Variable Name	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
Age		
18-24 years	0.0%	0.0%
25- 34 years	0.0%	12.5%
35-44 years	0.0%	12.5%
45-54 years	16.7%	37.5%
55-64 years	66.7%	29.2%
65-74 years	16.7%	8.3%
75 and above	0.0%	0.0%

Zip Codes	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
30311	16.6%	0.0%

30021	16.6%	0.0%
30024	16.6%	0.0%
30331	16.6%	0.0%
30030	16.6%	0.0%
30032	0.0%	4.3%
30064	0.0%	4.3%
30084	0.0%	4.3%
30088	0.0%	4.3%
30127	0.0%	4.3%
30274	0.0%	8.7%
30291	0.0%	4.3%
30312	0.0%	4.3%
30314	0.0%	4.3%
30315	0.0%	17.4%
30316	0.0%	4.3%
30318	0.0%	26.1%
30331	0.0%	8.7%
30341	16.6%	0.0%

Insurance Status	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
I don't have health insurance	16.7%	29.2%
Medicaid	33.3%	33.3%
Medicare	50.0%	25.0%
Military Healthcare	0.0%	0.0%
Private Insurance	16.7%	33.3%
Through my parents	0.0%	0.0%
Not sure	0.0%	4.2%

Ever Been Screened for Breast Cancer	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
Yes	N/A	66.7%
No	N/A	29.2%

Type of Breast Cancer Screening or Assessment	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
Clinical breast exam	N/A	61.1%
Mammogram	N/A	83.3%

3D Mammogram	N/A	16.7%
Breast self-exam	N/A	27.8%
Other	N/A	5.6%

Stage of Breast Cancer at Diagnosis	Breast Cancer Survivors (n=6)	Undiagnosed Women (n=24)
Stage 0	0.0%	N/A
Stage 1	20.0%	N/A
Stage 2	40.0%	N/A
Stage 3	20.0%	N/A
Stage 4	20.0%	N/A

Policy Data

JSI reviewed federal and state policies that affect health care access, cost and utilization, as well as policies most relevant to the breast cancer clinical continuum of care, including breast cancer screening, diagnosis and treatment.

JSI searched key policy sources such as Kaiser Family Foundation, the Centers for Disease Control and Prevention (CDC), and the American Cancer Society to identify relevant federal policies. At the state level, JSI examined whether Georgia had adopted an expanded Medicaid program, whether Georgia had adopted a Medicaid waiver that could restrict access to Medicaid and its services (e.g., work requirements), and any of their rules related to the NBCCEDP (e.g., eligibility requirements) and the state Breast and Cervical Cancer Treatment Program (BCCTP). Additionally, JSI examined Georgia's state cancer plans to discern whether relevant actions or recommendations might impact breast cancer screening, detection and treatment. The main sources for this type of information included state department of health or state Medicaid resources (e.g., Medicaid eligibility, state NBCCEDP eligibility), and policy-focused organizations or think tank materials (e.g., Kaiser Family Foundation, state-level organizations).

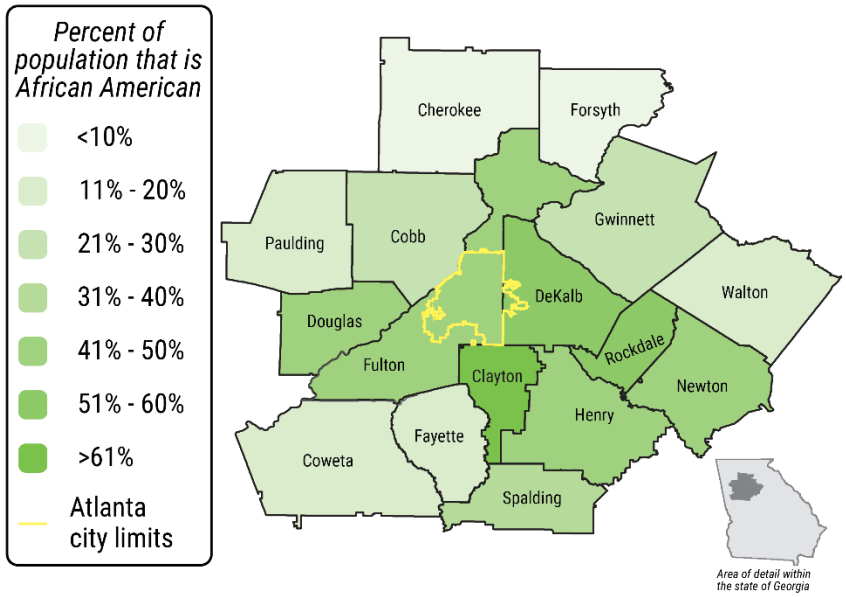
Section 1 Findings: Burden of Breast Cancer

Section 1 describes the breast cancer disease burden in the Atlanta MTA using secondary data, as well as relevant findings from the qualitative data.

Demographics

The Atlanta MTA is a 16-county region in the southeastern U.S. that is centered around Atlanta, GA. The city of Atlanta is in Fulton and DeKalb counties. The Atlanta MTA is located entirely within the state of Georgia and is home to 5.2 million people. Its population is 52 percent white and 36 percent Black (see Table 3). Higher concentrations of Black people live around the center of the MTA, with the highest percentage (69%) reported in Clayton County (see Table 4 and Map 1).

MAP 1. ATLANTA METRO AREA BLACK POPULATION



Source: American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Higher concentrations of Black people live around the center of the MTA, with the highest percentage (69%) reported in Clayton County (see Map 1). DeKalb and Rockdale counties have the next highest concentrations at 54 percent and 52 percent, respectively, followed by Douglas (45%), Fulton (44%), Henry (41%) and Newton (43%) counties. Forsyth County has the lowest concentration of the Black population in the MTA at 3 percent of its county's population.

TABLE 3. ATLANTA METRO AREA DEMOGRAPHICS

Gender	
Male	48%
Female	52%
Age	
Under Age 18	25%
Age 18-64	64%
Over Age 65	11%
Race/Ethnicity	
White	52%
Black	36%
Asian	6%
American Indian or Alaska Native	0%
Native Hawaiian or Other Pacific Islander	0%
Some Other Race	3%
Two or More Races	3%
Hispanic/Latino	11%
White not Hispanic	46%
Minority Race	48%
Number of Black Women Over Age 45	342,385
Total Population	5,201,647

Source: American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

TABLE 4. ATLANTA METRO AREA COUNTY DEMOGRAPHICS

County	Total Population	Percent of Total Population That Is Female	Percent of Total Population That Is Black	Number of Black Women Over Age 45
Cherokee	235,896	51%	7%	2,557
Clayton	274,150	53%	69%	33,553
Cobb	739,072	52%	27%	33,689
Coweta	138,015	51%	18%	4,785
DeKalb	736,066	53%	54%	83,025
Douglas	140,152	52%	45%	10,443
Fayette	110,306	51%	21%	5,397
Forsyth	211,300	50%	3%	1,039
Fulton	1,010,420	52%	44%	84,449
Gwinnett	889,954	51%	27%	37,773
Henry	217,506	52%	41%	16,253

Newton	105,042	52%	43%	8,506
Paulding	152,399	51%	19%	4,790
Rockdale	88,482	53%	52%	9,224
Spalding	64,192	52%	33%	4,127
Walton	88,695	51%	17%	2,775

Source: American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Roughly 19 percent of all residents (one million people) of the Atlanta MTA live in Fulton County (see Table 4), with another 17 percent residing in Gwinnett County (800,000 people). Cobb County and DeKalb County each represent 14 percent of the MTA's population. The remaining 36 percent is spread across 12 other counties: Cherokee, Clayton, Coweta, Douglas, Fayette, Forsyth, Henry, Newton, Paulding, Rockdale, Spalding and Walton counties. Refer to Table 4 for demographic information specific to each county within the MTA. The number of Black women over age 45 is noted for each county in the MTA because this Census-designated delineation best aligns with breast cancer metrics (e.g., percentage of women over age 40 who have received a screening mammogram in the last two years).

Breast Cancer Disease Burden in the Atlanta MTA

Breast cancer disease burden in the Atlanta MTA is highly dependent on two factors: where a person lives (e.g., the county in which they reside) and their race (e.g., whether they are Black or white). In the Atlanta MTA, the likelihood of receiving a breast cancer diagnosis, the stage of diagnosis, and the likelihood of death from the disease varies along geographic and racial lines.

A helpful measure for breast cancer disease burden is prevalence, or the proportion of the population that has the disease at a given time. It is important to note that prevalence is measured in multiple ways depending on the time period of interest. This report uses age-adjusted complete prevalence, which represents the proportion of people alive on a certain day who have been diagnosed with breast cancer, regardless of when the diagnosis was made (National Cancer Institute, 2020). Prevalence statistics are only available at the state level. In Georgia, the complete age-adjusted prevalence of breast cancer is 1.58 percent, which is lower than the national percentage of 1.69.

Breast cancer indicators for other measures are available at the county level. Tables 5-9 describe the breast cancer disease burden in the MTA. Data on breast cancer incidence rates, in situ incidence rates, late-stage incidence rates, and mortality rates are all expressed in terms of number of new cases or number of deaths per 100,000 individuals per year. Mammography rates, shown in Table 9, are represented as the percentage of women over the age of 40 that have had a screening mammogram in the last two years. Some racially disaggregated rates are unavailable for Cherokee, Forsyth and Walton counties, as too few Black women live in these places to calculate the rates.

TABLE 5. ATLANTA METRO AREA BREAST CANCER INCIDENCE RATE (PER 100,000)

	Age-Adjusted Incidence Rate	5-Year Incidence Rate Trend Direction	Age-Adjusted Incidence Rate for White Women	5-Year Incidence Rate Trend Direction for White Women	Age-Adjusted Incidence Rate for Black Women	5-Year Incidence Rate Trend Direction for Black Women
Cherokee	125.0	stable	125.4	stable	128.5	stable
Clayton	129.1	rising	133.5	rising	132.9	rising
Cobb	138.4	stable	143.3	stable	125.9	stable
Coweta	118.0	stable	120.5	stable	105.8	stable
DeKalb	134.1	stable	141.2	stable	133.4	rising
Douglas	145.6	stable	146.5	stable	142.6	stable
Fayette	135.5	stable	131.4	stable	146.5	stable
Forsyth	125.6	stable	127.6	stable	124.8	*
Fulton	132.8	stable	136.4	falling	132.7	rising
Gwinnett	127.8	stable	131.4	stable	136.9	stable
Henry	134.5	stable	127.0	stable	150.1	stable
Newton	133.1	stable	131.2	stable	131.2	stable
Paulding	131.9	stable	129.8	stable	148.0	*
Rockdale	131.6	stable	119.5	stable	145.5	stable
Spalding	129.6	stable	131.1	stable	127.9	stable
Walton	118.9	stable	118.3	stable	131.5	stable
Georgia	125.8	*	125.8	*	129.0	*
National	124.2	stable	126.1	stable	124.0	stable

Source: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

Age-adjusted breast cancer incidence rates in all women in the Atlanta MTA range from 118.0 new cases per 100,000 in Coweta County to 145.6 in Douglas County (See Table 5). These incidence rates tend to be similar or slightly higher than the national and state averages, with Douglas County reporting the highest difference (145.6 compared with 125.8 in Georgia and 124.2 nationally).

Throughout the MTA, incidence rates for Black women are higher than the national average for Black women (excepting Coweta County), and rates are generally higher than the state average in Georgia. Henry County reports the highest age-adjusted incidence rate for Black women at 150.1 per 100,000 (compared to 127.0 for white women in the county and 134.5 overall), while the largest difference between age-adjusted incidence rates for Black and white women is reported in Rockdale County (145.5 for Black women, 119.5 for white women, and 131.6 overall). Notably, and in contrast to all other counties in the MTA as well as state and national trends, age-adjusted breast cancer incidence rates among Black women are rising in Clayton, DeKalb and Fulton counties.

TABLE 6. ATLANTA METRO AREA BREAST CANCER IN SITU INCIDENCE RATE (PER 100,000)

	Age-Adjusted In Situ Incidence Rate	5-Year In Situ Incidence Rate Trend Direction	Age-Adjusted In Situ Incidence Rate for White Women	5-Year In Situ Incidence Rate Trend Direction for White Women	Age-Adjusted In Situ Incidence Rate for Black Women	5-Year In Situ Incidence Rate Trend Direction for Black Women
Cherokee	31.4	falling	32.2	falling	*	*
Clayton	29.7	rising	25.9	stable	32.4	*
Cobb	37.0	rising	38.3	stable	32.8	rising
Coweta	23.9	stable	23.6	stable	27.3	*
DeKalb	38.4	rising	41.7	rising	38.4	rising
Douglas	29.9	stable	30.0	stable	30.0	*
Fayette	36.4	stable	33.5	stable	50.3	stable
Forsyth	36.2	stable	36.5	stable	*	*
Fulton	37.3	rising	38.0	stable	38.1	rising
Gwinnett	33.4	stable	35.2	stable	32.7	*
Henry	38.4	stable	38.8	rising	38.3	stable
Newton	25.2	stable	20.2	falling	30.6	*
Paulding	29.9	stable	30.4	stable	22.4	*
Rockdale	30.1	stable	25.6	stable	34.9	*
Spalding	27.4	stable	26.8	stable	26.8	*
Walton	23.8	stable	21.8	stable	*	*
Georgia	30.0	*	29.3	*	32.6	*
National	28.3	stable	29.7	stable	31.8	stable

Source: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

Overall, breast cancer *in situ* incidence rates among all women by county cluster around the Georgia state average of 30.0 per 100,000, with some counties reporting higher rates and others reporting lower. The highest rate (38.4) is reported in both DeKalb and Henry counties, and the lowest is 23.8 in Walton County, closely followed by 23.9 in Coweta County. There is no major trend in rates comparing white and Black women (where data are available), as some counties report higher rates for white women and others report higher rates for Black women. The greatest difference along racial lines is reported in Fayette County, where the rate among white women is 33.5 compared to 50.3 among Black women. In contrast to other counties in the MTA, as well as state and national trends, the breast cancer *in situ* incidence rate among Black women is rising in Cobb, DeKalb and Fulton counties (Table 6).

TABLE 7. ATLANTA METRO AREA LATE-STAGE BREAST CANCER INCIDENCE RATE (PER 100,000)

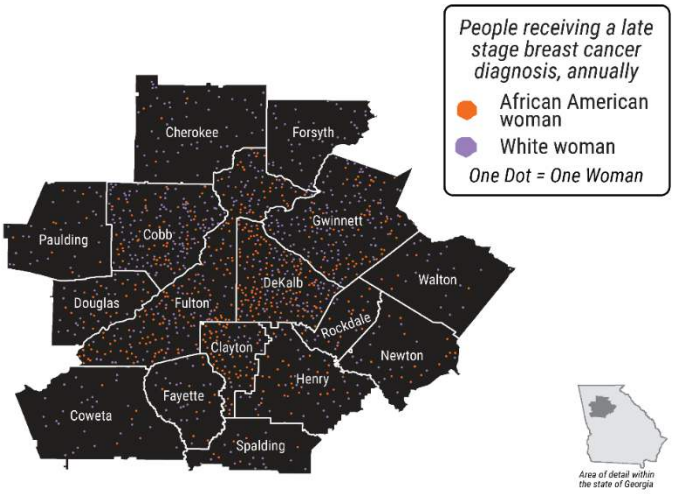
	Age-Adjusted Late-Stage Incidence Rate	Average Count of Cases That Are Late-Stage	Age-Adjusted Late-Stage Incidence Rate for White Women	Average Count of Cases That Are Late-Stage for White Women	Age-Adjusted Late-Stage Incidence Rate for Black Women	Average Count of Cases That Are Late-Stage for Black Women
Cherokee	43.2	56.0	42.1	50.0	57.4	4.0
Clayton	50.7	69.0	51.3	18.0	51.2	49.0
Cobb	47.7	190.0	46.8	132.0	54.8	51.0
Coweta	40.9	32.0	41.3	26.0	38.1	5.0

DeKalb	48.9	195.0	41.5	64.0	55.5	125.0
Douglas	59.6	44.0	56.7	25.0	64.1	18.0
Fayette	45.1	31.0	40.8	22.0	66.7	8.0
Forsyth	37.9	42.0	37.9	38.0	*	*
Fulton	48.8	257.0	41.1	105.0	58.4	140.0
Gwinnett	46.6	205.0	45.5	128.0	57.3	59.0
Henry	49.4	58.0	41.5	29.0	63.1	28.0
Newton	52.3	30.0	46.3	16.0	58.1	14.0
Paulding	46.7	37.0	44.0	28.0	67.4	9.0
Rockdale	46.9	24.0	42.6	11.0	47.4	12.0
Spalding	51.8	21.0	51.8	14.0	55.4	6.0
Walton	44.1	23.0	42.5	18.0	58.6	5.0
Georgia	46.0	2596.0	42.8	1615.0	54.8	910.0
National	41.0	78641.0	41.4	62240.0	51.0	11590.0

Source: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

The age-adjusted late-stage incidence rate of breast cancer among all women is highest in Douglas County at 59.6 per 100,000. All but two counties in the MTA (Coweta and Forsyth) report higher age-adjusted late-stage incidence rates among all women than the national rate of 41.0. Five counties report lower rates than the state rate of 46.0: Cherokee (43.2), Coweta (40.9), Fayette (45.1), Forsyth (37.9) and Walton (44.1). Importantly, in all but two counties where data are available (Clayton and Coweta), the age-adjusted late-stage incidence rate is higher among Black women than white women. Late-stage incidence rates are highest for Black women in Paulding County (67.4), followed by Fayette County (66.7; Table 7).

MAP 2. ATLANTA METRO AREA LATE-STAGE BREAST CANCER CASES



Map 2 shows the concentration of women who receive a late-stage breast cancer diagnosis annually. DeKalb and Clayton counties show high concentrations of late-stage diagnoses, with the majority of cases being Black women. Gwinnett and Cobb counties also show high concentrations of diagnoses. However, the majority of those cases are in white women. The counties farther from Atlanta and the center of the metro area have much lower concentration of diagnoses, reflecting the region's population density.

Source: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

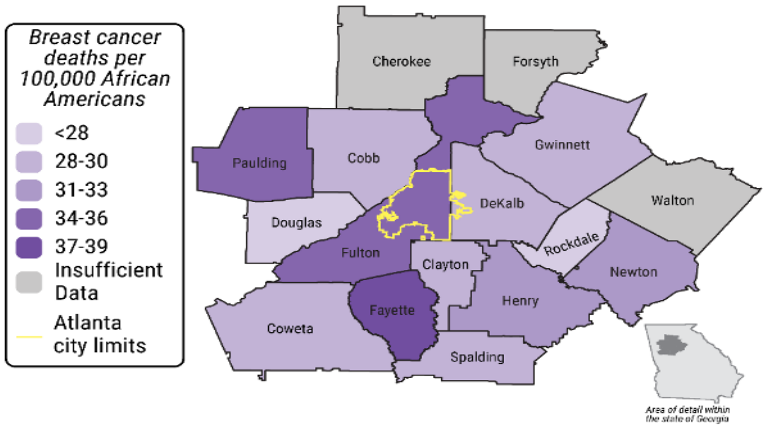
TABLE 8. ATLANTA METRO AREA BREAST CANCER MORTALITY RATE (PER 100,000)

	Age-Adjusted Mortality Rate	5-Year Mortality Rate Trend Direction	Age-Adjusted Mortality Rate for White Women	5-Year Mortality Rate Trend Direction for White Women	Age-Adjusted Mortality Rate for Black Women	5-Year Mortality Rate Trend Direction for Black Women
Cherokee	17.5	falling	17.1	falling	*	*
Clayton	23.5	stable	17.8	stable	27.8	stable
Cobb	20.4	falling	18.7	falling	29.2	stable
Coweta	22.2	falling	21.3	falling	28.1	stable
DeKalb	22.9	falling	16.7	falling	29.3	*
Douglas	26.0	stable	25.9	stable	24.3	*
Fayette	22.8	stable	19.3	stable	39.0	*
Forsyth	15.3	stable	15.6	stable	*	*
Fulton	24.5	falling	17.3	falling	33.8	falling
Gwinnett	21.5	falling	21.0	falling	28.7	*
Henry	27.1	stable	25.1	stable	30.7	*
Newton	32.3	stable	30.6	stable	32.3	*
Paulding	21.5	falling	19.8	falling	33.3	*
Rockdale	27.2	stable	30.3	stable	24.3	*
Spalding	30.4	stable	30.4	stable	28.9	*
Walton	23.6	stable	22.5	falling	*	*
Georgia	21.9	*	19.6	*	28.4	*
National	20.6	falling	20.1	falling	28.1	falling

Sources: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health); 2017 County Level Modeled Estimate Combining BRFSS and NHIS (US Centers for Disease Control and Prevention; State Cancer Profiles; National Institutes of Health)

The lowest age-adjusted breast cancer mortality rates among all women in the Atlanta MTA are reported in Forsyth County at 15.3 per 100,000 and in Cherokee County at 17.5 (see Table 8). Newton County reports the highest overall, age-adjusted breast cancer mortality at 32.3. The highest age-adjusted breast cancer mortality rate for Black women is reported in Fayette County (39.0), which also reports the highest difference in rates between Black and white women (39.0 and 19.3, respectively). Breast cancer mortality rates for Black women are not available in Cherokee, Forsyth and Walton counties due to low Black populations (see Map 1). Importantly, for the 13 counties where comparative data is available, age-adjusted breast cancer mortality rates are higher among Black women in 11 counties as compared to white women. Rates are lower among Black women in Rockdale and Spalding counties.

MAP 3. ATLANTA METRO AREA BLACK BREAST CANCER MORTALITY RATES



Source: 2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)

The breast cancer mortality rate is higher for Black women than white women in most counties in the MTA where data are available for both demographics (see Map 3). In counties where the reported mortality rate is higher among white women, it is generally by a lower margin than the counties that report higher rates for Black women (see Table 8). Counties in the Atlanta MTA with the highest breast cancer deaths include Fayette, Paulding and Fulton counties.

TABLE 9. ATLANTA METRO AREA SCREENING MAMMOGRAPHY RATES (AMONG ALL WOMEN OVER AGE 40)

	Percent of Women Getting Mammograms
Cherokee	65%
Clayton	64%
Cobb	70%
Coweta	72%
DeKalb	70%
Douglas	69%
Fayette	86%
Forsyth	71%
Fulton	77%
Gwinnett	64%
Henry	67%
Newton	75%
Paulding	68%
Rockdale	79%
Spalding	68%

Walton	67%
Georgia	77%
National	73%

Source: *2012-2016 State Cancer Profiles (US Centers for Disease Control and Prevention; National Institutes of Health)*

The percentage of women over age 40 receiving a screening mammogram ranges from 64 percent in Clayton and Gwinnett counties to 86 percent in Fayette County. In only four counties does the screening mammography rate exceed the national rate of 73 percent: Fayette (86%), Fulton (77%), Newton (75%) and Rockdale (79%), and the rate meets or exceeds the state rate in Georgia of 77 percent in three of these places (Fayette, Fulton, and Rockdale). Although racially disaggregated data are not available at the county level, these data are available at the state level. Racial differences in screening mammography reported in Georgia show that Black women are screened for the disease at a higher rate than white women. In Georgia, the screening mammography rate for Black women over the age of 40 is 79.4 percent, compared to 72 percent of white women in the same age range. Nationally, 74 percent of non-Hispanic Black women and 73 percent of non-Hispanic white women ages 50 – 74 received a screening mammogram within the past two years (Komen, 2021).

Overall, an examination of breast cancer disease burden measures suggests that throughout the Atlanta MTA, Black women are more likely to die from breast cancer than their white counterparts, even though they are more likely to receive a screening mammogram and are diagnosed with the disease at lower rates. In all but two counties where data are available (Clayton and Coweta), the age-adjusted late-stage incidence rate is higher among Black women than white women.

A similar pattern has been noted in the literature to occur in other states. A study in South Carolina, for example, found that while the breast cancer incidence rate was higher for white women compared to Black women (124 versus 118.5 per 100,000 women), the breast cancer mortality rate was higher for Black women (29.8 versus 21.3 per 100,000 women) (Samson, Porter et al., 2016). The study further reported that Black women were even more likely to have had a screening mammogram or clinical breast exam compared to white women (81.9% of Blacks versus 74% of whites) and more likely to have late-stage breast cancer at the time of diagnosis (47% of Black women versus 35% of white women).

Research from other parts of the country has also explored additional trends in breast cancer and comorbidity outcomes. Tammemagi et al., for example, examined a cohort from a large health system in Detroit, Michigan for 10 years (n=906, with 264 Black women and 642 white women) (Tammemagi, Nerenz, Neslund-Dudas, Feldkamp, & Nathanson, 2005). The authors found that Black breast cancer patients experienced more recurrence of their cancer, more cancer progression, and worse all-cause breast cancer and competing-causes survival. Compared to white women, Black women had shorter overall survival (Hazard Ratio=1.34, 95% CI: 1.11, 1.62). Taken together, these findings suggest effective control of comorbidities could improve life expectancy and decrease disparities in breast cancer survival.

Community Member Perspectives across the Breast Cancer Care Continuum

This section summarizes perspectives from community members and health care providers collected through focus group discussions and interviews, which provide additional insights at each phase of the

breast cancer continuum of care in the Atlanta MTA. Priority counties for qualitative data collection in the Atlanta MTA were Clayton County, DeKalb County and Fulton County. Clayton County, DeKalb County and Fulton County have the highest breast cancer burden, and the highest SDOH burden for Black women. However, due to limited connections to local partners in Clayton County, the themes shared below represent the perspectives of community members from DeKalb County and Fulton County, not the entire Atlanta MTA.

Breast Cancer Screening

There are different screening guidelines for those at average risk and for those at higher risk. Recommendations for those at higher risk also vary from one organization or professional society to another. There is some inconsistency for screening recommendations among organizations for those at higher risk (Komen 2021a). As noted above, the screening mammography rate for women over age 40 in most counties in Georgia is lower than the national rate. Statewide, the screening mammography rate is 7.4 percent higher in Black women than white women. Focus group participants' perspectives give some indication of the experiences of women seeking and obtaining breast cancer screening in Georgia.

Screening Guidelines. Community members had varying knowledge of the screening guidelines, which included beginning screening at 40 to 50. There was a sentiment that the guidelines need to be different for Black women due to community members' own experiences with early-age disease onset and stories of Black women they know.

> *"I had a girlfriend of mine; we were pretty close. We went to high school together. She ended up getting breast cancer and that really... shook me because we were not at the age where breast cancer was even discussed, we were in our early 30's. So, she had breast cancer before that they were saying that you should get a mammogram. She got breast cancer when she was pregnant, or she had just had her baby. Breast cancer was not on our radar." - Undiagnosed*

> *"We need to be made aware. They say to get a mammogram at 45 or when you get 50. I think it needs to be done in the early 30's and even 20's. I don't think we should wait because, I mean, I know a lot of women that are older get it, but my cousin was 37 with breast cancer. Breast cancer has no age."- Undiagnosed*

> *"I'm guilty because I didn't have a mammogram. When I heard about women having mammograms I said, 'That's for old folks, I'm good.' When [I] turned 50, I felt this knot and went for my first mammogram." - Survivor*

Physician Recommendations for Screening. Many community members shared that their doctor's recommendation for breast screening motivated them to get screened. One participant without a family history said she would have delayed the screening mammogram if it was not for her physician's recommendation.

> *"I work for a doctor and she always recommends that her patients have a breast exam, and they follow that recommendation. Many of them come back after being diagnosed with breast cancer and tell her that they're thankful that she recommended it for them to go." - Undiagnosed*

> *"I never thought about a mammogram until my physician recommended it. It was never discussed in my household or amongst my friends, so if it had not been for the physician, I probably would not have gotten it until I was much older because no one in my immediate family ever had breast cancer." -Undiagnosed*

Quality of Screening Experience. Participants had varying experiences with receiving screening mammograms. Overall, participants felt the process could be done with more care and compassion. A couple of participants shared that they had to wait up to five hours for screening and attributed that to having Medicaid. Others described screening mammogram technologists "purposely making it a painful experience".

> *"My first screening mammogram was extremely upsetting. I heard it can be painful, but after having screening mammograms since then it didn't have to be that uncomfortable. My breasts hurt for literally five weeks after that, so much so that I called them to see if something was wrong, even though I had gotten my negative results. I wanted to know if this is what a normal procedure was like. I wanted to make sure that they understood that the way that technician conducted the screening mammogram could have totally had someone in total fear. I wanted to go get another screening mammogram at another location to compare. A breast exam should not be five to six weeks after where you are still feeling pain. Uncomfortable, yes. Excruciating, no." - Undiagnosed*

> *"It's just if people had a little bit more sensitivity in that whole process, from a humanistic standpoint ... You've got to stop and pause to make the damn appointment, then you've got to stop and get to [the appointment]. Then you've got to rush through traffic, then you've got to make sure [to get] time off of work or getting your kid. All of that plays into your psyche in having a breast exam done. It's not just, we're going to have a breast exam or we're not. It's all of that that goes into it. If they looked at it from a whole totality standpoint, it would be a lot better, and if they put themselves in the light of the person that has to unpack all of that, that'd be helpful. People have true anxiety around just that. It's the unknown."- Undiagnosed*

> *"You should not have to wait four and five hours to be screened. If I had money, I'm quite sure they would be much better but because I get both Medicaid and I go to a free clinic they take their time." -Undiagnosed*

Fear of diagnostic testing results. A number of community members were notified that they needed additional diagnostic testing after their screening mammogram. Fear of a possible breast cancer diagnosis and cost presented as barriers to conducting the additional tests.

> *"When they called me, they just stated they needed to run some more tests. So, of course, I thought, 'Well, what do you mean, you need to run some more tests? They couldn't say any more over the phone. I came back and they ran some more tests. When I did go in, I remember they put me in the room, and she came in and she put the results on this little screen. She was just showing me what they found. She's not sure that it is cancerous, so I had to schedule a follow-up appointment. I was a single mom at the time*

> *and I'm like, oh my God, what if I have cancer? I have three kids. I immediately went to the worst like I always do, versus thinking positive about it. It was a scary moment in my life." - Undiagnosed*

> *"After my very first screening mammogram I received a letter in the mail saying that I needed to come back for further analysis, so the first thing I would say, I'm not sure who writes those letters, but those letters are scary as hell. If there is anything they can do, to look at the language in that, honey, that would be awesome. It took a moment, but I did schedule the appointment and go back. I knew that my support was strong. I had also gone through this kind of thing with people that I love very much who had lost their breast cancer battles, so I wasn't a stranger to what this could be. I go back for the second analysis, and come to find out, they just needed to do a benchmark or a baseline. If I didn't [have] the support to help soothe my anxiety, I may not have gone back for that second visit" – Undiagnosed*

> *"I had an issue where I had to get a biopsy, and then I had to repeat a screening every three months, which was very hard on my body and insurance didn't cover it. I had to pay each time for that screening. I had to have four in one year, for about two years." - Undiagnosed*

Diagnosis

While screening may be readily available within the Atlanta MTA, focus group findings suggest that community members face barriers within the health care system at the diagnosis stage of the breast cancer continuum of care. Community members also shared the emotional toll on those newly diagnosed to disclose to their network.

Delayed Diagnosis. Community members reported finding lumps, being told to wait for long periods of time, and not to worry about masses. These delayed diagnoses may be associated with or influencing the late-stage diagnosis rates.

> *"Went to the doctor for my checkups and he would do breast exams and the lump was there. I felt it, but every time they did a mammogram, they didn't find anything. Then it got to the point that it was so dense that they had to do an ultrasound, still nothing. So, when I moved to Atlanta, you could see the print of the tumor through my breast, and my cousin was like, 'What's wrong with your breast?" I said, 'That's just a tumor. It's been there. I do my mammograms, and everything is fine.' My cousin called and made me an appointment. When they did it, they said, 'We can't see anything.' I said, 'You need to do an ultrasound because the mass is so thick.' When they did the ultrasound, they said, 'We see a cancer cell.' It was 12 centimeters." - Survivor*

> *"I went every year for a mammogram. I did self-exam and I felt it. I knew it was there and the mammogram and everything came back negative. Then boom, all of a sudden, the cell popped up. When they got it, it was stage two." - Survivor*

Fear of Diagnosis. Some focus group participants shared fear of a breast cancer diagnosis and loss of income as primary reasons for late diagnosis and delayed treatment.

> *"I knew I had cancer for a whole year. I saw an indentation in the breast, it was sunken in, but I focused on work. I worked nights and was hardheaded. My daughter saw my breast and kept asking when I was going to the doctor. I kept brushing her off and the indentation kept morphing. My rude awakening was when my daughter finally called the paramedics to my home. They checked my vitals and they were off the charts. I went to the emergency room and let them know that I might have cancer. They did a biopsy the following morning and I stayed in the hospital for a week. I was diagnosed with stage four." – Living with metastatic breast cancer (MBC)*

Mental strain of disclosure. The diagnosis phase of the breast cancer continuum of care can be extremely stressful for patients. Community members noted the anxiety and stress of disclosing a new diagnosis and the sensitivity that family and friends should take in response.

> *"One of my close friend's sister was diagnosed with breast cancer. I think that people didn't know how to support her. They said things that made her panic and fearful. She apologized for not telling me, but those she told were not encouraging and had already given her a death sentence. People need to be a little more sensitive in how they react, not share their opinions." -Undiagnosed*

Treatment

Focus group participants characterized the transition from diagnosis to treatment as multifaceted and dynamic. Below is a description of the barriers and facilitators to breast cancer treatment as described by the Atlanta MTA focus group participants.

Access to Quality Treatment. The majority of the people diagnosed with breast cancer who participated received breast cancer treatment through Medicaid. Many had good treatment experiences and were happy with the affordability. Other community members were concerned that by being a Medicaid recipient they did not have access to the best treatment options.

> *"I've had good experience on the Medicaid women's health program. They put me on that based on my income and everything like that. They take care of my medications, monthly infusions, CAT scans every three months, and they take care of my bone scanning every three months. I asked the pharmacist, how much one pill would be if I didn't have Medicaid and it was $350." -— Survivor*

> *"Being on Medicaid, there are certain drugs that I have access to, and then there are the good, good drugs that are administered over at Emory University that I probably could be using, but they only have so many drugs that apply to me within my category that they're going to give you."- Survivor*

> *"How did President Carter and Arthur Blank get cured from cancer so quickly, whereas some people go through months of chemo, months of radiation? So, I'm wondering why we don't have that type of chemo here. Is it because of the money?" - Survivor*

Physical and Emotional Toll of Treatment. Several survivors shared stories of their treatment experiences. Within the course of their care, some explained that they experienced side effects that they later learned could have been prevented. They indicated not being prepared for their treatment journey, and some even mentioned that they would have made a decision to not receive treatment had they known how emotionally and physically draining the process would be. Many survivors described working hourly jobs with no sick leave at the time of their diagnosis. Some were able to continue working during treatment, but the majority had to quit and seek outside financial support, such as that available through the Social Security Disability Insurance program.

> *"I was participating in Alzheimer's research and had to do an MRI on my brain. When they got results back, they told me they saw a mass behind my left eye. I'm sitting there like, "Huh?" I had no headaches, no blurred vision. The neurologist told me it's a side effect from the chemo and that he wanted me to have surgery. I freaked out. I told him no. I don't mind you removing a breast, or a tumor, but you're talking about going in my head. He then suggested they monitor it with an MRI every three months. Had I not participated in the Alzheimer's research, I never would've known. Chemo messed up in my body. I stay in chronic pain 24/7. Had I known chemo was like this, I wouldn't have done it. I would have walked it out and went natural." - Survivor*

> *"What got me was they don't tell you the side effects. They don't tell you, it's poison. My body was aching, I had sores in my mouth, I couldn't keep nothing down, both ends. I stayed sick the whole time and one drug caused an allergic reaction. They always had to stop treatment and get me back right, and some days I didn't even finish the treatment. They need to tell you the side effects. The radiation was something else too. The chemo doctor said, "Oh it's just like a little sunburn." No, it was not. I got burned so bad, he was so concerned about me that he stopped the treatment for that week." - Survivor*

> *"It's mental stress that you go through. Nobody knows what your body is going through. No one knows how you feel. I felt alone, even though my aunt went through the chemo with me. My body didn't get a break. I had to go through chemo, through the surgery, then radiation. I did six weeks of that every single day Monday through Friday. I burned pretty bad. Now I got my five-year cancer pill and it drove my body into menopause. I have aches and pains, but I'm here. I try to stay around positive people. Other survivors can tell me what she went through, but she can't feel what I feel." - Survivor*

> *"I think what I've seen with some of the survivors is that first diagnosis, everyone is hopeful. We're going to get treatment, we're going to fight this thing, we're going to win. When the cancer comes back, and different decisions are made. One particular situation I'm thinking about this was her third battle with breast cancer. She was married with a young son and a wonderful career. But she just got tired of fighting and made the decision that she didn't want to go through treatment again. That initial one,*

> *we're good, but when it comes back multiple times, that's when I'm seeing folks give up." - Undiagnosed*

Access to Quality Support Services. Participants commented on the notable differences in treatment options and support resources depending on a woman's residence and race.

> *"I was looking for all these resources and things to go to. A coworker invited me to a hospital north of Atlanta. The meeting was all Caucasian women and a couple of Hispanic women. When I walked in, they turned and looked at me like, 'What are you doing here?' They gave us food pantry information and gave me a slip to go to my area over by Martin Luther King Jr. I watched and listened and noticed everybody had different codes on their slip. I think the zip codes are probably close to where they live, but I figured the food pantry where the meeting was better quality and wondered why I wasn't given the same option. So, I grabbed one of their slips. I wasn't supposed [to] but I grabbed one of their slips and wanted to do my own investigation. I went to my area over by Martin Luther King Jr., and the food was outdated, not fresh and had stuff I really couldn't eat, like turkey backs. The following week I went to their food pantry. They had chicken wings, oranges, apples and other fruits. It is so different. If I hadn't grabbed that extra piece of paper, I would have never known." - Survivor*

Financial and Caretaking Support. Community members emphasized the importance of having access to financial and caretaking assistance. Some shared the difficulty qualifying for financial assistance in the Atlanta MTA, and other participants provided examples of how family members have supplemented lost income and provided childcare over the course of a survivor's cancer treatment. Some believed that the absence of financial and caretaking support could result in a woman's untimely death.

> *"I had a full-time job when I was diagnosed and had to stop working. I was told about resources if you got too sick and couldn't work, but I was put on the waiting list. My stuff had to be [nearly] cutoff before they could help me. You come home, your lights are off, your gas is off, your telephone is off whatever, you know what I'm saying? It's like you have no choice but to work." - Survivor*

> *"I had a friend who after her breast cancer diagnosis was so worried about who was going to take care of her family and how she was going to keep her job. Her job didn't pay for time off, but she had to take leave. She did die from breast cancer, but I think she worried herself more than anything. She let that worry just strangle her to death. She really didn't have anyone to support her." – Undiagnosed*

> *"My cousin was recently diagnosed with breast cancer. As a family, we check-in with her anytime she goes to the doctor or gets medical results. We have several doctors in the family and we're all helping her make decisions together. The doctors in our family are calling her doctors just to get the gist of everything they're saying before a decision is made about treatment because my cousin has several kids. It's her decision ultimately, but we're all giving input. Having that family support has helped her. She couldn't work and everyone supported her financially." - Undiagnosed*

Section 2 Findings: Systemic and Social Determinants of Health

Section 2 explores the systemic and social determinants of health (SDOH) that may drive breast cancer inequities. The set of factors explored in this section—residential segregation, economic vulnerability, experiences of racism—were informed by consultations with Komen's AAHEI team, academic experts (see Acknowledgements for details), findings from the literature scan, and principles in the guiding frameworks.

Residential Segregation

The Atlanta MTA is segregated along racial and socioeconomic lines, creating stark contrasts by geography. Approximately 2.5 million people of color live in the Atlanta MTA, comprising 48 percent of the region's total population (see "Minority Race" in Table 3). A majority of the approximately 1.9 million Black residents who live in the Atlanta MTA reside in Fulton County (see Map 1, and Tables 3 and 4).

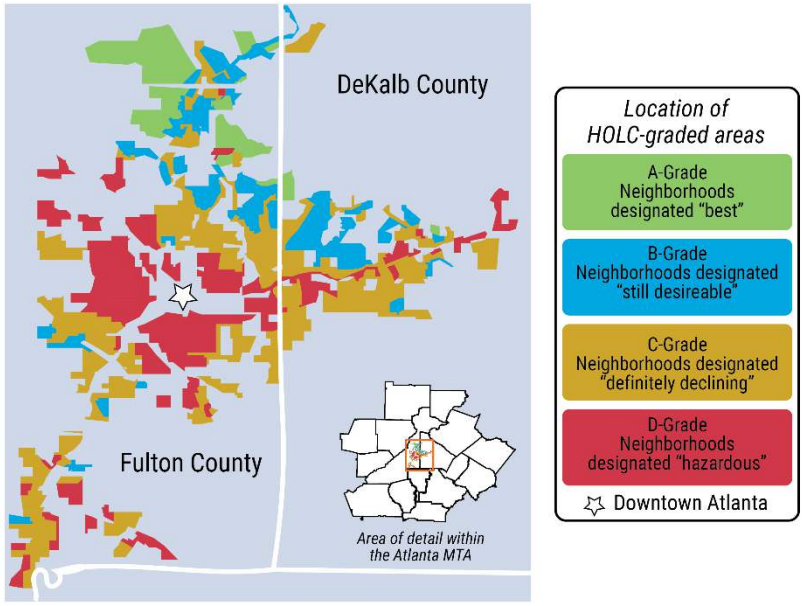
In addition to the MTA as a whole being racially segregated (with most people of color living in just a few of the counties, many of the counties in the MTA are also internally racially segregated. Counties' internal segregation can be measured using the Black/white dissimilarity index to assess the extent to which there may be residential segregation (see Map 4). Index scores range from 0 to 100 and correspond to the percentage of people within a racial group who would need to relocate in order for a county to achieve integration. Zero indicates complete integration of the two races and 100 indicates complete segregation of the two races. For example, a score of 35 means that 35 percent of whites within a particular county would need to move to a different neighborhood within the county in order to achieve racial integration.

In 2019, Fulton and DeKalb counties have the highest score (73), indicating that people living in those counties are more segregated than people living in the other counties of the MTA. In fact, based on these scores, Fulton and DeKalb counties are significantly more segregated than all the remaining counties, with the next highest score of 47 reported in Fayette County. The lowest scores are reported in Paulding and Rockdale counties at 27, indicating that the racial distribution of residents in these locations is more even.

The patterns of residential segregation that are visible today across the Atlanta MTA are the direct result of systemic racism. Although measures of racism are limited, qualitative commentary and some quantitative data that can serve as a proxy for racism are available for the Atlanta MTA and are presented below.

> *"I moved to historic College Park, which is a little more affluent than the other parts of college park. As a black person moving in, I wasn't clear about the neighborhood dynamics. I am greeted with, 'Oh, well who are you?' and, 'Where are you from?' The questions are as if I am invading in their space. Black people were here before you even thought of being here." - Undiagnosed*

MAP 4. ATLANTA METRO AREA REDLINING



Source: 2019 Mapping Inequality Project (University of Richmond)

Examples of institutionalized racism are the local, state and federal housing policies that generated and perpetuate residential segregation in the U.S. They include exclusionary zoning laws, racially-restrictive covenants, and redlining – the practice of identifying and systematically discriminating against neighborhoods based on their racial makeup. Between 1933 and 1954, the Federal Housing Administration, along with the Home Owners' Loan Corporation (HOLC), a federally-funded program to help homeowners refinance their mortgages, introduced redlining policies in over 200 cities. Field agents with the federal government assigned grades to neighborhoods ranging from A/best to D/hazardous. These color-coded "residential security maps" were used by government agencies, mortgage lenders, appraisers and other real estate professionals to inform their lending and real estate practices and policies, making it difficult for people of color to obtain mortgages and become homeowners. Redlining has significant implications because homeownership is a valuable means of intergenerational wealth building in the U.S. The practices perpetuate racial segregation and intergenerational poverty. Furthermore,these long-term practices contribute to ongoing wealth inequalities that are seen today (Mapping Inequality Project, 2019).

Map 4 shows areas within the Atlanta MTA that were included in the residential security maps created by HOLC agents in the first half of the twentieth century. Portions of Fulton and DeKalb counties appear on the 1938 map of the city of Atlanta. Officials declared large sections of Fulton County, as well as sections of DeKalb County, "hazardous". ITthe high level of residential segregation that currently exists between Blacks and whites in Fulton and DeKalb counties can be traced – at least in part – to redlining.

Personally Mediated Racism

Data suggest that in addition to institutionalized racism, Black people s in the Atlanta MTA experience several forms of personally mediated racism (U.S. Department of Housing and Urban Development, 2019; U.S. Department of Justice Federal Bureau of Investigation, 2017). To date, most of the research on racism and health has focused on the relationships between personally mediated racism and health, and interpersonal racism and health. A growing body of research demonstrates how personally mediated racism has long-term and adverse effects on psychological wellbeing, mental health, and other healthy-living practices (such as alcohol and drug use, sleep disturbance, and eating patterns) (Bailey et al., 2017; Kwate et al., 2003). The research also points to the links between personally mediated racism and biomarkers of disease, including allostatic load (Williams & Mohammed, 2013).

TABLE 10. ATLANTA METRO AREA RACISM

County	Number of Black Residents Killed by Police	Number of Hate Crimes Committed with a Race/Ethnicity/ Ancestry Bias Motivation	Number of Fair Housing Act Cases Filed with a Race Basis
Cherokee	0	1	12
Clayton	2	0	38
Cobb	2	9	90
Coweta	1	0	6
DeKalb	3	0	90
Douglas	1	0	16
Fayette	0	0	10
Forsyth	0	1	8
Fulton	6	0	264
Gwinnett	1	2	99
Henry	1	0	29
Newton	1	0	6
Paulding	0	0	6
Rockdale	0	0	5
Spalding	0	0	5
Walton	0	0	2

Source: 2017 Hate Crime Statistics (Federal Bureau of Investigation, Uniform Crime Reporting); Fair Housing Act Cases, 2009-2019 dataset (US Department of Housing and Urban Development, Office of Fair Housing and Equal Opportunity); The Counted Database, 2015-2016 dataset (The Guardian)

As seen in Table 10, Fulton County reports the highest number of Black peoples killed by police at six and the highest number of Fair Housing Act cases (by a significant margin) at 264. Cobb County reports the highest number of hate crimes at nine.

TABLE 11. ATLANTA METRO AREA PERCEIVED RACISM

County	Percent of Black residents who feel they have been treated worse than other races at work	Percent of Black residents who feel their experiences seeking health care have been worse than for people of other races	Percent of Black residents who report having felt emotionally upset as a result of how they have been treated based on their race	Percent of Black residents who report having felt physical symptoms as a result of how they have been treated based on their race
Cherokee	*	*	*	*
Clayton	15%	13%	15%	8%
Cobb	16%	13%	16%	9%
Coweta	*	*	*	*

DeKalb	16%	13%	16%	7%
Douglas	16%	13%	16%	9%
Fayette	*	*	*	*
Forsyth	*	*	*	*
Fulton	20%	10%	20%	6%
Gwinnett	15%	8%	15%	2%
Henry	*	*	*	*
Newton	15%	8%	15%	2%
Paulding	*	*	*	*
Rockdale	15%	8%	15%	2%
Spalding	*	*	*	*
Walton	*	*	*	*

Source: 2019 County Health Rankings (County Health Rankings); American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Table 11 outlines rates of self-perceived incidents regarding race by Black men and women in the MTA. Data were only available in Clayton, Cobb, DeKalb, Douglas, Fulton, Gwinnett, Newton and Rockdale counties due to low Black populations in the remaining counties. Fulton County reported the highest percentage of Blacks feeling like they have been treated worse than other races in the workplace at 20 percent. Clayton, Cobb, DeKalb and Douglas counties all reported the highest percentage of Black residnets feeling like their experiences seeking health care have been worse than other races at 13%. 15 to 20 percent of Black residents reported feeling emotionally upset by how they are treated because of their race, and 2-9 percent of Black residents report having felt physical symptoms as a result of how they have been treated because of their race.

> *"I think unfortunately a lot of it [racism] does end up happening in the workplace because naturally we usually congregate around people that are like us. So, we don't necessarily, not that it doesn't happen, but the likelihood of it happening at home is less, because we're around our people and on one hand I found that a lot at work." – Undiagnosed*

> *"I have experienced racism at the workplace. I cleaned these apartments for this hospital, it's where the patient's family used to stay. They had a certain time every day they're supposed to checkout and this particular morning, I went to check this room to make sure that they had left, and they were still there. I knocked on the door, a little Caucasian boy opens the door and he says, "Daddy, it's a (N-word) at the door." I went down there, I told my manager, I said, "You need to handle this, and you need to handle this quick." So, they were asked to leave." – Survivor*

> *"My background is construction and real estate development and it's not only racial discrimination, it's also the gender discrimination. When you put those two together, it's a constant having to validate why I'm supposed to be in the room. And the culture that is, "Give me your background." Or, "Tell me your experience." As if I'm supposed to sell to you the fact that we're still sitting at this table together. And so, I can't just give you one particular instance. It's literally every single day that I'm having to do that, to the point where one of my employees, every single meeting he's in, he says, "Well, she's the boss." Because they'll start to direct it to him since he's an older white man and he's very*

> *quick to let them know that he doesn't make those decisions. But it's the fact that even he has picked up that they assume that I'm just there to take notes." - Undiagnosed*

Health Disparities

TABLE 12. ATLANTA METRO AREA HEALTH AND WELLBEING

County	County Health Rankings Percentile	Percent of Adults Reporting "Fair" or "Poor" Health	Average Number of Poor Physical Health Days per Month	Average Number of Poor Mental Health Days per Month
Cherokee	2%	13%	3.2	3.4
Clayton	43%	21%	4.1	3.7
Cobb	4%	15%	3.4	3.4
Coweta	6%	15%	3.5	3.6
DeKalb	10%	15%	3.5	3.6
Douglas	19%	19%	3.8	3.8
Fayette	3%	13%	3.2	3.3
Forsyth	1%	12%	2.9	3.1
Fulton	7%	14%	3.3	3.3
Gwinnett	3%	16%	3.5	3.2
Henry	16%	17%	3.8	3.8
Newton	32%	19%	3.9	3.8
Paulding	6%	15%	3.5	3.5
Rockdale	28%	19%	3.9	3.8
Spalding	87%	21%	4.3	4.1
Walton	16%	15%	3.7	3.8

Source: 2019 County Health Rankings (County Health Rankings)

The County Health Rankings (CHR) highlight county-level differences in health and wellbeing across the Atlanta MTA. CHR are derived from over 30 measures of health-related outcomes and factors to give an overall health ranking of a county compared to other counties in the same state (See Figure 2). The data suggest that there are some disparities in the Atlanta MTA in terms of overall health and wellbeing (see Table 12). Five counties in the Atlanta MTA rank in the top 5 percent of all counties in Georgia: Forsyth (1%), Cherokee (2%), Fayette (3%), Gwinnett (3%) and Cobb (4%) counties. Forsyth County reports the best health metrics with the fewest percent of adults reporting "fair" or "poor" health at 12 percent, fewest average number of poor physical health days per month at 2.9, and the fewest average number of poor mental health days per month at 3.1. Spalding County has the poorest health outcomes in the

MTA with and 87 percent CHR score and reports the poorest health measures across all three metrics with 21 percent of adults reporting "fair" or "poor" health, an average of 4.3 poor physical health days per month, and an average of 4.1 poor mental health days per month.

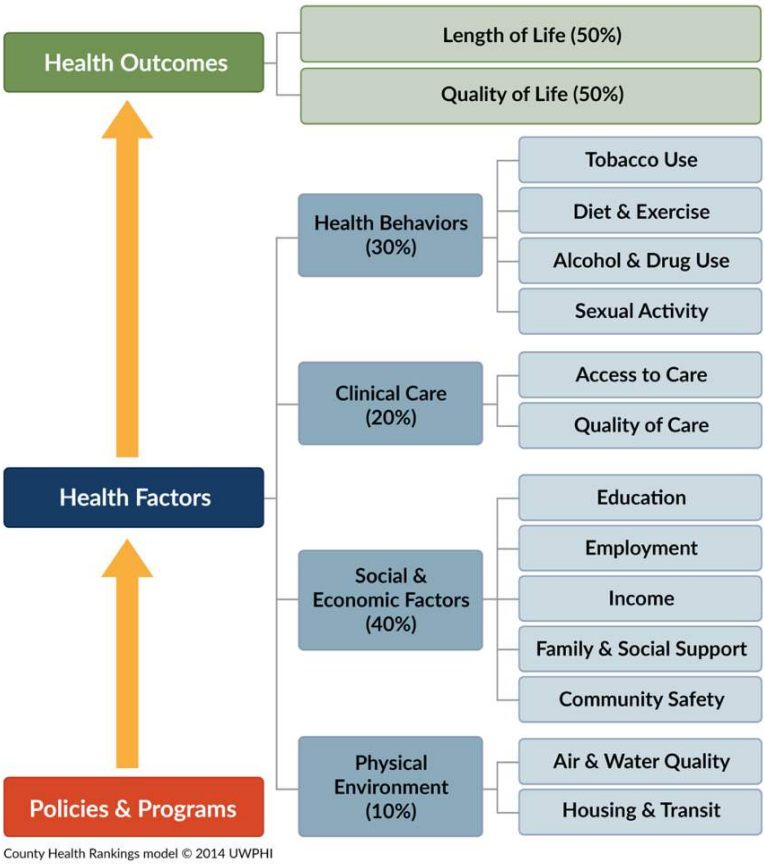


FIGURE 2. COUNTY HEALTH RANKINGS MODEL

TABLE 13. ATLANTA METRO AREA HEALTH BEHAVIORS

County	Percent of Adults Who Are Obese	Percent of Adults Who Drink Excessively	Percent of Adults Who Are Physically Inactive
Cherokee	26%	18%	22%
Clayton	35%	12%	28%
Cobb	26%	18%	19%
Coweta	29%	18%	24%
DeKalb	26%	15%	20%
Douglas	30%	15%	28%
Fayette	33%	16%	20%
Forsyth	30%	18%	21%
Fulton	25%	18%	19%
Gwinnett	30%	16%	21%
Henry	34%	16%	24%
Newton	33%	15%	29%
Paulding	29%	17%	23%
Rockdale	35%	13%	31%
Spalding	34%	14%	28%
Walton	31%	16%	27%

Source: 2019 County Health Rankings (County Health Rankings)

In terms of health behaviors (Table 13), 35 percent of adults are obese in both Rockdale and Clayton counties - the highest rate of obesity in the MTA. Rockdale County also has the highest rate of adults who are physically inactive at 31 percent. Five counties share the highest rate of excessive drinking at 18 percent: Cherokee, Cobb, Coweta, Forsyth and Fulton. Fulton County has the lowest rates of obesity and physical inactivity at 25 percent and 19 percent (Cobb County also reports 19 percent of physically inactive adults), and Clayton County reports the lowest rate of excessive drinking in the MTA at 12 percent.

TABLE 14. ATLANTA METRO AREA LIFE EXPECTANCY

County	Life Expectancy	Life Expectancy for Whites	Life Expectancy for Blacks
Cherokee	80	80	80
Clayton	77	73	77
Cobb	80	80	79
Coweta	79	79	76
DeKalb	77	82	78
Douglas	80	76	78
Fayette	81	80	81
Forsyth	82	81	81
Fulton	79	83	75
Gwinnett	81	79	81
Henry	78	76	79
Newton	77	76	77
Paulding	79	78	81
Rockdale	78	77	78
Spalding	74	74	72
Walton	77	78	73

Source: 2019 County Health Rankings (County Health Rankings)

Overall life expectancy in the Atlanta MTA is lowest in Spalding County at 74 years and highest in Forsyth County at 82 years (Table 14). The disparities between whites and Blacks vary across the MTA with some counties reporting higher life expectancies for Blacks and others for whites. The largest disparity is reported in Fulton County, where whites live an average of eight years longer than their Black counterparts (83 years versus 75 years).

TABLE 15. ATLANTA METRO AREA: AGE-ADJUSTED PREMATURE MORTALITY RATE (PER 100,000)

County	Premature Age-Adjusted Mortality	Premature Age-Adjusted Mortality for Whites	Premature Age-Adjusted Mortality for Blacks
Cherokee	280	290	301
Clayton	407	623	399
Cobb	270	276	329
Coweta	339	330	469
DeKalb	317	237	394
Douglas	392	455	359
Fayette	254	259	274
Forsyth	227	253	181
Fulton	333	205	523
Gwinnett	253	291	281
Henry	360	406	341
Newton	436	469	408
Paulding	334	356	282
Rockdale	362	433	340
Spalding	545	528	618
Walton	410	387	566

Source: 2019 County Health Rankings (County Health Rankings)

Premature age-adjusted mortality measures the number of deaths per 100,000 among people under age 75. Spalding County has the highest premature age-adjusted mortality rate at 545 deaths per 100,000 people (Table 15). Similar to life expectancy, racial disparities vary across the metro. The largest disparity exists in Fulton County, where the age-adjusted premature mortality rate is 205 for whites and 523 for Blacks. However, the second-largest disparity exists in Clayton County where the rate is much higher for whites at 623 versus 399 for Blacks.

Access to Health Services

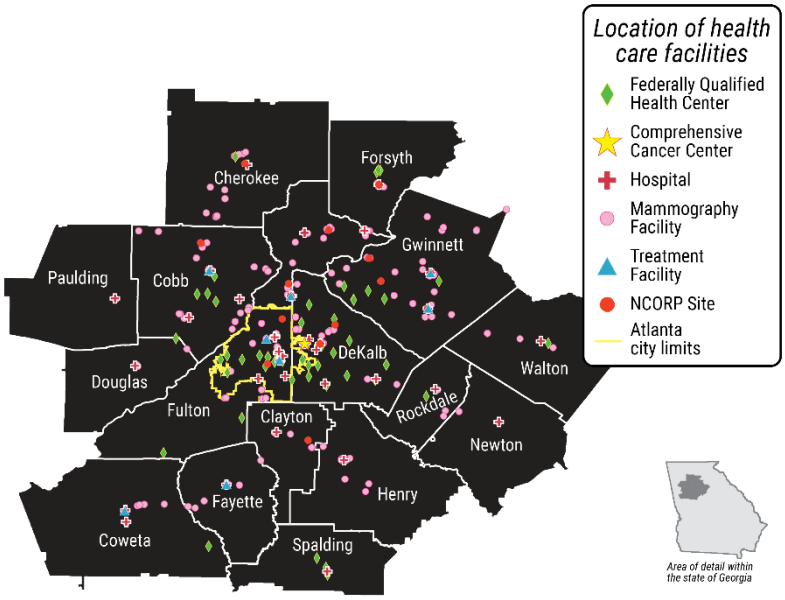
TABLE 16. ATLANTA METRO AREA HEALTH SYSTEMS

County	Percent of Total Population That Is Medically Underserved	Number of PCPs	Persons per PCP	Number of "Other" PCPs	Persons per "Other" PCP	Number of Private PCPs	Number of Private Oncologists
Cherokee	13%	87	2,778	48	2,098	41	7
Clayton	0%	79	3,537	29	3,395	50	2
Cobb	9%	534	1,401	95	1,051	30	4
Coweta	93%	71	1,979	78	1,278	2	2
DeKalb	12%	794	932	101	990	693	6
Douglas	0%	52	2,735	43	2,321	1	10
Fayette	0%	123	908	148	674	5	6
Forsyth	94%	79	2,798	49	2,035	0	7
Fulton	23%	1,103	928	159	627	23	3
Gwinnett	3%	557	1,629	65	1,536	1	3
Henry	100%	105	2,112	89	1,123	4	4
Newton	100%	37	2,892	45	2,206	0	0
Paulding	0%	23	6,775	35	2,847	1	4
Rockdale	0%	65	1,375	63	1,584	1	21
Spalding	100%	33	1,964	106	948	1	2
Walton	100%	38	2,373	70	1,431	2	2

Sources: 2019 County Health Rankings (County Health Rankings); HRSA Data Warehouse, 2019 dataset (US Department of Health and Human Services, Health Resources & Services Administration); 2019 Docstop web search; 2019 Healthgrades web search

Data suggest that there are significant disparities in the health system in the Atlanta MTA, including in health care facilities and the proportion of the population that is medically underserved. According to the Health Resources and Services Administration (HRSA), Medically Underserved Areas/Populations are areas or populations designated by HRSA as having too few primary care providers, high infant mortality, high poverty or a high elderly population. In Henry, Newton, Spalding and Walton counties, 100 percent of the population is medically underserved (see Table 16). Coweta and Forsyth counties are close behind at 93 percent and 94 percent. Meanwhile, five counties report 0% of their populations designated as medically underserved: Clayton, Douglas, Fayette, Paulding and Rockdale.

MAP 5. ATLANTA METRO AREA HEALTH SYSTEMS



Source: HRSA Data Warehouse, 2019 dataset (US Department of Health and Human Services, Health Resources & Services Administration); Comprehensive Cancer Centers and NCORP sites, 2019 dataset (National Cancer Institute); Mammography facilities, 2019 dataset (American College of Radiology); Treatment facilities, 2019 dataset (American College of Surgeons; Association of Community Cancer Centers)

The health systems map (Map 5) shows the concentration of health care facilities in the Atlanta MTA, and generally reflects population density across the metro. Many resources are centered in and around Atlanta, whose city limits are in Fulton and DeKalb counties.

Most Federally Qualified Health Centers (FQHCs) and hospitals and the only comprehensive cancer center are located in Fulton and DeKalb counties.

The majority of the screening mammogram facilities and NCI National Community Oncology Research Program (NCORP) sites are located in the counties immediately surrounding Atlanta with the largest concentrations in Cobb and Gwinnett counties. The fewest facilities exist in Paulding, Douglas and Newton counties, which only have one hospital each.

As with health care facilities, most breast cancer resources are concentrated in Fulton and DeKalb counties. Dekalb County has three mobile screening mammography centers, two cancer coalitions, and nine survivor support groups. Fulton County has four mobile screening mammography centers, one cancer coalition (same as all other counties in the metro other than DeKalb [2] and Cobb which is unreported), and 22 survivor support groups (significantly higher than all other counties).

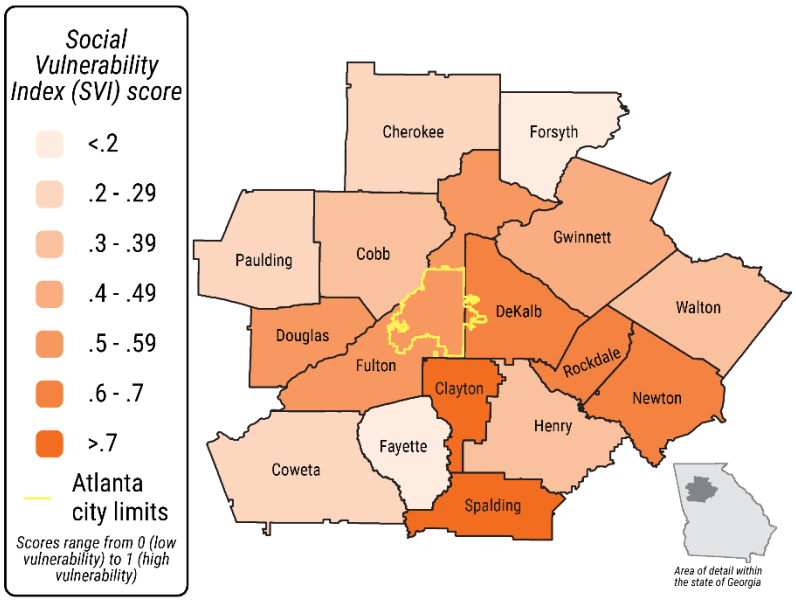
It is important to note that the counties in which people reside are not necessarily the same as the counties in which people receive care. Due to migratory patterns, including where residents are employed and how far they are willing to travel to receive quality care, people may travel to other counties to access health services.

Social and Economic Vulnerability

Social determinants affect health outcomes – such as breast cancer – for individuals and communities. These play out not just across individual lifetimes, but generationally. Disadvantages compound in certain communities, which exacerbates and cements a wide range of negative outcomes and existing burdens, including with regard to health (Cozier et al., 2009; Institute of Medicine of the National Academies, 2011). The Social Vulnerability Index (SVI) of each county can be seen in (Map 6). The SVI is calculated by the CDC, and a county's score "refers to the resilience of communities when confronted by

external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks" (e.g., hurricanes, fires, COVID-19). Scores range from 0.0 to 1.0, with scores closer to 1.0 indicating greater vulnerability.

MAP 6. ATLANTA METRO AREA SOCIAL VULNERABILITY

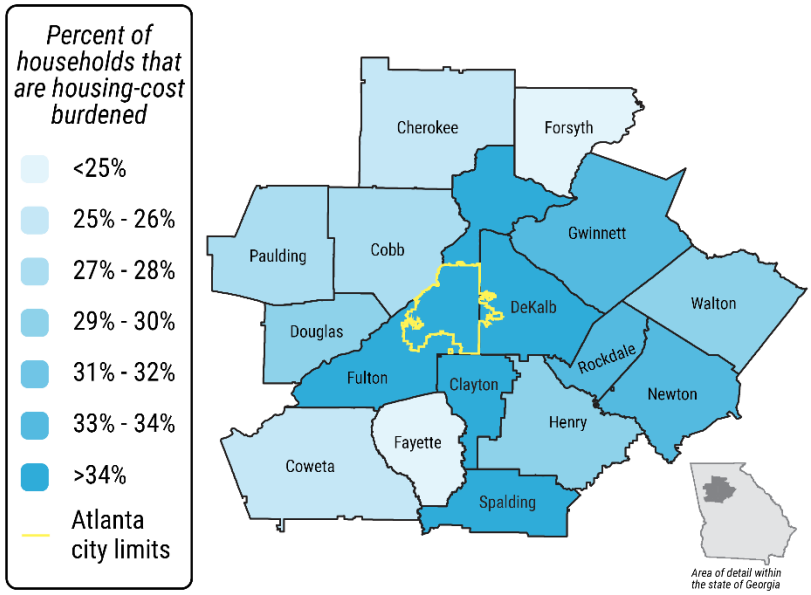


Source: 2016 Social Vulnerability Index (US Centers for Disease Control and Prevention)

Clayton and Spalding counties have the highest SVI scores at 0.92 and 0.90, respectively. Fayette and Forsyth counties report the lowest SVI scores at 0.08 and 0.04, respectively. Individual factors influencing a county's SVI score can be parsed by looking at specific indicators (Map 6).

As suggested by its high SVI score, Clayton County is a place of economic insecurity as compared to other counties in the Atlanta MTA. Clayton County reports the highest percentage of the population below 200 percent FPL in the MTA, at 48 percent and the highest percentage of the population that is uninsured at 20 percent (Table 18). Spalding County reports the highest percentage of Black women over the age of 45 who live under the poverty line at 28 percent. Fayette County reports the lowest percentages across two metrics with 6 percent uninsured and 3 percent of Black women over 45 living under the poverty line.

MAP 7. HOUSING-COST BURDEN IN THE ATLANTA METRO AREA



Map 7 indicates the percentage of renters and homeowners that spend 30% or more of their total income on housing. Clayton County has the highest percentage of households that are housing-cost burdened in the metro area at 39%. DeKalb and Spalding counties fall close behind at 37%.

Source: 2016 Comprehensive Housing Affordability Strategy dataset (US Department of Housing and Urban Development)

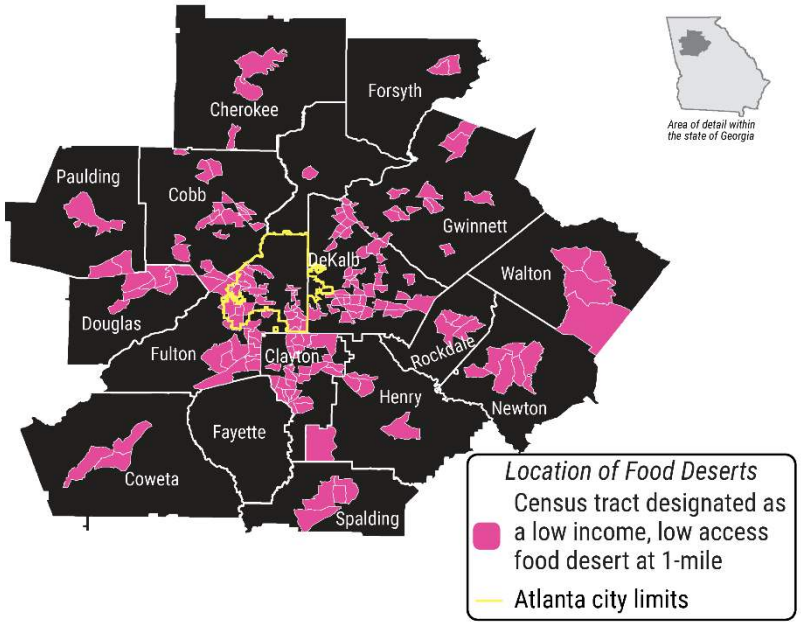
TABLE 17. ATLANTA METRO AREA FOOD SECURITY

County	Percent of Population That Is Food Insecure	Percent of Total Population with Limited Access to Healthy Foods	Percent of Black Households Receiving SNAP/EBT
Cherokee	8%	6%	11%
Clayton	22%	17%	26%
Cobb	12%	10%	17%
Coweta	11%	6%	21%
DeKalb	19%	9%	23%
Douglas	16%	13%	19%
Fayette	9%	6%	8%
Forsyth	5%	3%	14%
Fulton	18%	7%	25%
Gwinnett	10%	8%	13%
Henry	14%	9%	16%
Newton	17%	11%	25%
Paulding	10%	7%	19%
Rockdale	17%	14%	16%
Spalding	19%	7%	34%
Walton	12%	5%	27%

Source: 2019 County Health Rankings (County Health Rankings); American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Regarding food security in the Atlanta MTA, Forsyth County reports the lowest percentage of the population as food insecure at 5 percent, and Clayton County reports the highest at 22 percent (see Table 17). Forsyth and Clayton counties also report the lowest and highest percentages, respectively, of their populations with limited access to healthy foods at 3 percent and 17 percent. Spalding County has the highest percent of Black households receiving SNAP/EBT at 34 percent and Fayette County has the lowest at 8 percent.

MAP 8. FOOD DESERTS IN THE ATLANTA METRO AREA



Map 8 illustrates the location of food deserts throughout the Atlanta MTA. Food deserts are census tracts designated by the USDA as low-income areas with low access to food within one mile. Most of the food deserts in the MTA are located in Fulton, Clayton and DeKalb counties. Notably, there are no food deserts in Fayette County.

Source: 2019 Food Research Atlas (US Department of Agriculture, Economic Research Service)

TABLE 18. ATLANTA METRO AREA TRANSPORTATION

County	Percent of Households Without a Vehicle	Percent of Total Population That Commutes More Than 45 Minutes to Work	Percent of Total Population That Commutes to Work Using Public Transit	Percent of Total Population That Commutes to Work by Foot/Bike/Other
Cherokee	3%	33%	0%	3%
Clayton	7%	22%	3%	3%
Cobb	4%	26%	1%	3%
Coweta	4%	24%	1%	2%
DeKalb	9%	23%	8%	3%
Douglas	4%	30%	1%	2%
Fayette	3%	25%	1%	2%
Forsyth	2%	28%	0%	2%
Fulton	11%	19%	8%	4%
Gwinnett	3%	30%	1%	2%
Henry	3%	30%	1%	2%
Newton	5%	27%	1%	2%

Paulding	3%	40%	0%	1%
Rockdale	5%	26%	2%	2%
Spalding	9%	23%	0%	3%
Walton	4%	28%	0%	2%

Source: 2019 County Health Rankings (County Health Rankings); American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Most counties in the Atlanta MTA are more suburban than urban, as evidenced by several statistics in Table 18. Fulton and DeKalb counties are the most urban. Fulton reports the highest percentage of households without a vehicle (11%) and the smallest percentage of the total population that commutes more than 45 minutes to work (19%). Fulton and DeKalb are tied for the highest percentage of the total population that commutes to work via public transportation (8%) and the highest percentage of people that commute to work by foot/bike/other (4%). Twelve counties report that 5 percent or less of their households lack a vehicle. Most counties also report between 22-33 percent of their population commuting more than 45 minutes to work, with the highest in Paulding County at 40 percent.

TABLE 19. ATLANTA METRO AREA EDUCATION

County	Percent of Population Over Age 25 That Has a High School Degree or Higher	Percent of Population Over Age 25 That Has a Bachelor's Degree or Higher	Percent of Black Women Over Age 25 Without a High School Degree
Cherokee	91%	36%	5%
Clayton	84%	19%	8%
Cobb	91%	46%	6%
Coweta	89%	29%	19%
DeKalb	89%	42%	10%
Douglas	88%	27%	7%
Fayette	95%	47%	4%
Forsyth	93%	50%	2%
Fulton	92%	50%	11%
Gwinnett	88%	35%	6%
Henry	90%	28%	6%
Newton	85%	20%	12%
Paulding	90%	24%	6%
Rockdale	87%	26%	9%
Spalding	81%	16%	26%
Walton	87%	19%	25%

Source: 2019 County Health Rankings (County Health Rankings); American Community Survey 2013-2017 5-Year Estimates (US Census Bureau)

Fayette and Forsyth counties report the highest educational attainment rates in the Atlanta MTA (Table 19 with 95 percent and 93 percent of their respective populations over age 25 having a high school diploma or higher. Additionally, 47 percent and 50 percent of their respective populations over age 25 have a bachelor's degree or higher, and only 4 percent and 2 percent of Black women over the age of 25 lack a high school diploma. Spalding County reports the lowest education rates and ranks the poorest among all counties in the MTA across all three criteria: 81 percent of people over age 25 have at least a high school diploma, only 26 percent have at least a bachelor's degree, and 26 percent of Black women over age 25 do not have a high school diploma.

Gentrification is another measure connected to educational attainment. Cherokee, Cobb and Coweta counties appear to be the most gentrified at 11 percent. The rate is lowest in Rockdale County at -1 percent (the only county with a negative percent change). All counties in the MTA have a positive proportional change in the population with a bachelor's degree or higher, with Forsyth County having the highest proportional change at 7 percent.

Policy Context

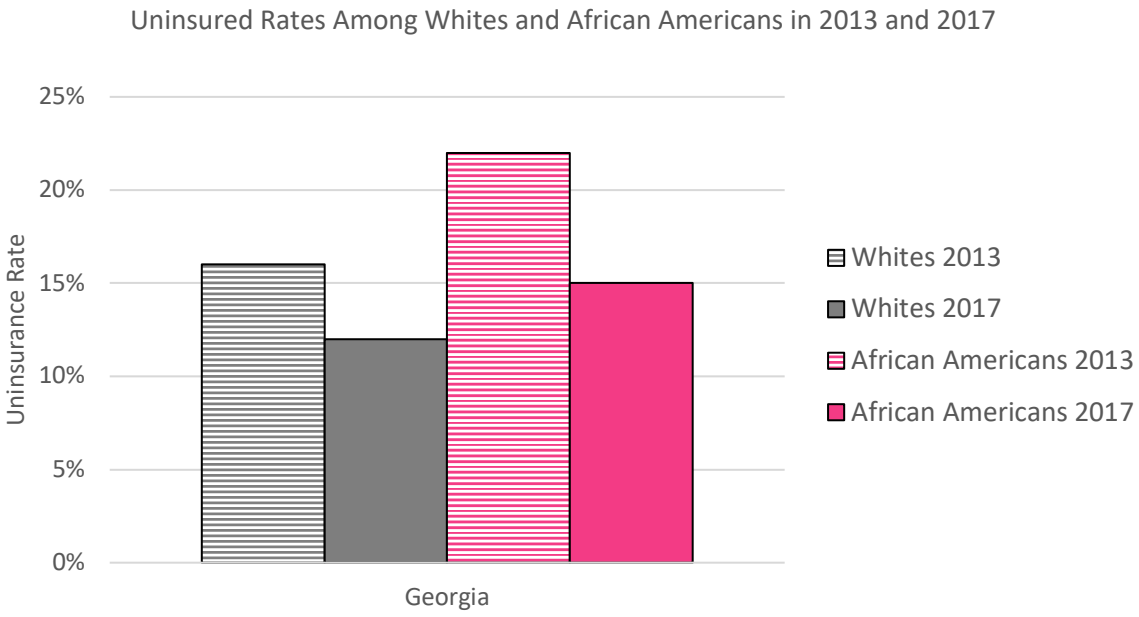
This section examines key policies relating to access to and coverage for breast cancer screening, diagnosis and treatment within the MTA

Medicaid Expansion. Under the Affordable Care Act (ACA), states have the option to expand their Medicaid program to individuals with incomes of up to 138 percent FPL. Prior to November 2019, Georgia had not elected to expand eligibility for its Medicaid program. This left many Georgians in what is called a "coverage gap" where their incomes are too high to qualify for Medicaid but not high enough to afford health insurance otherwise; thus, they remain uninsured. There are 255,000 people in Georgia who are in the coverage gap, and 92 percent of all adults in the coverage gap are located in the Southern U.S. (Garfield, Orgera et al., 2020). In 2020, CMS approved Georgia's request for a "partial Medicaid expansion" paired with a work requirement (more detail in subsequent sections); the approval is effective October 15, 2020, for approximately five years, with implementation beginning July 1, 2021 (Centers for Medicare & Medicaid Services, 2020; The Henry J. Kaiser Family Foundation, 2020). If Georgia were to fully expand eligibility for its Medicaid program, an estimated 518,000 additional Georgians would be able to enroll in Medicaid coverage (Garfield et al., 2020). One study estimated the number of deaths related to the coverage gap due to poor or no access to health care, concluding that 334 people in Georgia die each year because of the coverage gap and the state's failure to expand its Medicaid program (Miller & Wherry).

Secondary data indicate that, on average, the percentage of insured in the Atlanta MTA is lower than the national average of 92 percent (Berchick, Barnett et al., 2019). Of the 16 counties in the MTA, only Fayette County has an insured rate (94%) that is higher than the national average (see Table 18). The lowest rate in the metro is in Clayton County, where one in every five residents is uninsured.

Recent research indicates that the national uninsured rate among nonelderly adults has decreased for all racial/ethnic groups, with larger decreases among non-Hispanic Black and Hispanic groups compared to the non-Hispanic white group. See Figure 3 below for trends of uninsured rates for the nonelderly in Georgia (2013-2017) comparing rates among Black and white residents. There is an overall downward trend of uninsured rates for both Black and whites in Georgia, but an inequity in uninsured rates remains between the groups.

FIGURE 3. TRENDS OF UNINSURED RATES FOR THE NONELDERLY IN GEORGIA



> *"I had an accident quite a few years ago, and I had to keep going back to Grady Hospital for my checkups and the majority of the people who were there were mostly people that were on some sort of assistance or Medicaid. I felt the health professional treat the patients as if, you're less than them and they are doing you a favor. I don't feel that way when I go to my regular providers. It's like they assume that I could not afford services, when in actuality I had to go to Grady because that was the closest place where my physician who performed my surgery was located. The other doctors' treatment of me felt like, "Oh, you must be some sort of low-income somebody." I don't know if it's more about because of where you're getting the services or the fact that you were a Black female." - Undiagnosed*

National Breast and Cervical Cancer Early Detection Program (NBCCEDP) and Georgia Breast and Cervical Cancer Program (BCCP)

Women living in Georgia, who are 40 to 64 years old, at or below 200 percent of the FPL, and uninsured are eligible for the BCCP program (Georgia Department of Public Health, 2020).

During the five-year period of July 2014 to June 2019, the NBCCEDP served 34,429 women in Georgia for both breast and cervical cancer screening and detection services. Specific to breast cancer, 42,978 women received a screening mammogram over this five-year period, and 33,274 women received breast cancer screening and diagnostic services. Note that each category provides a unique count of women receiving services, but women may be counted in multiple categories. Thus, the distinct category figures listed are not unduplicated women receiving services (Centers for Disease Control and Prevention, 2020).

In Georgia, women who are diagnosed through BCCP may be eligible for treatment through Women's Health Medicaid Program if they meet certain requirements.

The varying levels of eligibility for BCCP can facilitate women's access to services (Table 21; e.g., eligible regardless of screening location or provider) or can impede a woman's access to services (e.g., requirements that NBCCEDP fund screening costs).

TABLE 21. OVERVIEW OF SCREENING AND TREATMENT SERVICES IN THE ATLANTA METRO AREA

	Breast and Cervical Cancer Services called The Georgia Breast and Cervical Cancer Program (Screening Focus)	**Medicaid for Breast and Cervical Cancer called Women's Health Medicaid in Georgia (Treatment Focus)**
Age Resident	Ages 40-64 years old Georgia resident	Under 65 years old Georgia resident and US citizen
Insurance status	Uninsured	Uninsured, specifically cannot be receiving Medicaid or Medicare.
Program Services	Screening and diagnostic services, specifically: • Clinical Breast Examination • Mammogram • Pelvic Examination • Pap test • Human papillomavirus (HPV) test • Diagnostic testing of abnormal results • Referrals to treatment through the Women's Health Medicaid Program	Treatment services, specifically: • Breast and cervical cancer and cervical pre-cancer treatment • Full coverage Medicaid that includes the full range of services not only cancer treatment • Services continue until all cancer treatment has been provided

Flexibility in the Medicaid Program via Medicaid Waivers

One aspect of flexibility in the Medicaid program introduced by Section 1115 of the Social Security Act is a state's option to apply for Medicaid "waivers" in the state's administration of the program. These waivers allow states to "waive" some of the typical federal requirements in order to pilot new approaches (subject to approval from the Centers for Medicare and Medicaid Services [CMS]) (National Conference of State Legislatures, 2018).

The Trump administration promoted work requirements through Medicaid waivers, which have previously not been approved (Brooks, Roygardner et al., 2019). Several states have applied to enact work requirements, meaning that Medicaid-eligible enrollees would have to report working a certain number of hours or involvement in a volunteer role, in school, or in time spent looking for a job. Their Medicaid coverage would be contingent on meeting these requirements. Work requirements in Medicaid are a widely criticized strategy that constrict access to Medicaid coverage, do not reach their purported goal of increasing work among Medicaid enrollees, and likely harm health by limiting access to insurance coverage (Cauley Narain & Zimmerman, 2019). CMS bases the work requirements on the assumption that work improves health, but such an assumption is flawed, particularly for Medicaid enrollees (Centers for Medicare & Medicaid Services). Research indicates that healthier Medicaid enrollees are more likely to be able to work, and that Medicaid enrollees with more serious illnesses are

unable to work due to their debilitating illnesses and the burden of treatment. Other enrollees who are not working are often students or caregivers for family members (Garfield, Rudowitz et al., 2019). Further, most adults enrolled in Medicaid are already working. Among adult Medicaid enrollees who work full-time, most work in low-paying jobs and in sectors that do not tend to offer employer-sponsored insurance (Garfield et al., 2019).

In October 2020, Georgia's 1115 waiver (Section 1115 of the Social Security Act) was approved by CMS, effective for approximately five years. Through the waiver, Georgia will expand Medicaid eligibility to adults 19-64 years old with incomes below 100 percent of the federal poverty level who also meet work requirements of 80 hours per month of working, volunteering, training, or studying. Enrollees must meet these work requirements unless they qualify for a "reasonable accommodation" such as a disability. In addition to work requirements, people who are eligible for coverage through this waiver must also pay monthly premiums (Centers for Medicare & Medicaid Services, 2020).

In November 2020, Georgia's 1332 waiver (Section 1332 of the Social Security Act) was also approved by CMS, allowing the state to institute a reinsurance program. Beginning in 2023, Georgia will transition away from the federal marketplace, but has decided not to issue a state-based insurance exchange. Rather, residents will use existing web brokers and health insurers to sign up for health coverage, without a centralized exchange platform.

Both the 1115 and 1332 waivers are currently being challenged in the courts.

Cancer Plan for Georgia

The Georgia Cancer Consortium includes 80 member organizations in Georgia that maintain and update the state's five-year cancer plan (Georgia Cancer Control Consortium, 2014). The plan generally identifies priority areas and strategies for improvement among different cancer types. It is especially pertinent that the plan explicitly calls out racial disparities between white and Black women regarding breast cancer outcomes multiple times. In the introduction to the cancer plan, it states:

> "While white women have a higher incidence of breast cancer than Black women, Black women are more likely to die of breast cancer. This may be explained by patterns of screening and access to care. Poverty also delays initiating treatment, failure to complete treatment, etc. Black women were less likely than white women in Georgia to have received recommended screenings for cervical or breast cancer in 2010."

In the section specifically regarding breast and cervical cancer, the Georgia Cancer Consortium again highlights the racial disparities regarding breast cancer incidence rates and survival rates in their Key Facts section. They outline five important strategic initiatives and actions to help reach their objective, which is to "ensure all women, regardless of income, race or employment status, have access to high quality breast and cervical cancer screening as well as genetic screening, counseling, and preventive clinical services related to hereditary breast and ovarian cancer"

Two of their initiatives most relevant to mitigating racial disparities are the following:

1. Sustain existing community-based breast and cervical cancer screening programs that screen at least 60 percent of women from racial/ethnic minority groups
2. Promote genetic testing to all low-income and rarely screened women 18 years of age and older

The Georgia Cancer Consortium also lays out four targets for 2019, regarding breast and cervical cancer outcomes, yet none of them are specifically focused on reducing racial disparities. Nonetheless, it is noteworthy that Georgia is aware and actively working on addressing racial disparities in breast cancer treatments and outcomes as discussed in their state cancer plan.

State Laws Impacting the Breast Cancer Community

- **Metastatic Step Therapy.** Georgia has passed legislation that prohibits the use of step therapy or "fail-first" protocols for advanced, metastatic cancer patients.
- **Oral Parity.** Georgia has passed legislation that ensures patient cost-sharing for oral chemotherapy treatments are no less favorable than the patient cost-sharing for intravenous chemotherapy treatments.

Both of these policies are beneficial to patients.

Discussion and Conclusions

This landscape analysis sought to understand the underlying causes of breast cancer inequities across the care continuum among Black women in the Atlanta MTA, with a focus on systemic and social determinants of health.

Breast Cancer Disease Burden

Overall, the Atlanta MTA breast cancer disease burden data demonstrate that Black women are more likely to die from breast cancer than their white counterparts, despite being more likely to receive a screening mammogram and diagnosed with the disease at lower rates.

Mammography rates are not likely to explain all of the reasons for higher mortality among Black residents. State data on screening mammography rates suggest that Black women are likely getting screening mammograms at similar rates as white women. In Georgia, the screening mammography rate for Black women over the age of 40 is 79.4 percent, compared to 72 percent of white women in the same age range (see Table 9). While Black women are getting screened at high rates, the qualitative findings indicate community uncertainty of the appropriate age for screening with some saying 50 years of age is the appropriate age for an initial screening mammogram. Other community members shared concern that recommended ages to begin first screening for Black women with no family history should be younger due to the number of Black women they have known with early-age onset of disease.

In almost all of the counties in the MTA for which data are available, Black women die at a higher rate than white women. The mortality rates in Cobb, DeKalb, Fulton and Fayette counties are higher for Black women versus white women. Notably, these counties account for 58 percent of the MTA's Black population. Three countries are the exception: Spalding, Rockdale, and Douglas counties (which have

smaller Black populations than most other counties in the MTA) are the only places where white women are more likely to die from the disease than Black women.

Cobb, DeKalb, Fulton and Fayette counties deserve particular attention as collectively they are home to over 200,000 Black women over age 45 (Table 4). In all but two counties (Clayton and Coweta) where data are available, the late-stage incidence rate (see Table 7) is higher among Black women than white women.

Overall, *in situ* incidence rates cluster around the Georgia state average of 30.0 per 100,000, with some counties reporting higher rates and others reporting lower. The highest *in situ* rate (38.4) is reported in both DeKalb and Henry counties, and the lowest is 23.8 in Walton County closely followed by 23.9 in Coweta County. There is no major trend in rates comparing white and Black women (where data are available), as some counties report higher rates for white women and others report higher rates for Black women. The greatest difference along racial lines is reported in Fayette County, where the rate among white women is 33.5 compared to 50.3 among Black women. In contrast to other counties in the MTA as well as state and national trends, the *in situ* incidence rate among Black women is rising in DeKalb and Fulton counties.

Quality of Care

Quality of screening experiences were raised when focus group participants shared stories of screening mammograms that caused “excruciating” pain for weeks or having to wait four hours to see a technician. Survivors also shared experiences of annual screening mammograms having not detected breast cancer that later progressed to a cancer diagnosis and others whose screening mammograms found an abnormality that providers told to simply monitor. These experiences may represent what has been found in the literature, though further study of patient experiences would be needed. Ansell et al. found facilities that served predominantly “minority” women were less likely to have dedicated breast imaging specialists reading results as compared to those facilities that served predominantly white women (Ansell et al., 2009).

The qualitative data reveal that women in the diagnosis and treatment phases of the breast cancer continuum are burdened by concerns over loss of income and an inability to fulfill caretaking roles once diagnosed or starting treatment. Additionally, those with caretaking responsibilities had the added stress of maintaining a household during intense treatment plans. Many emphasized the importance of family who provided childcare and financial support. These barriers are consistent with research that has found that retention in care is heavily impacted by a woman’s ability to manage financial and care-giving roles while working at jobs that make it difficult to take time off from work (Masi & Gehlert, 2009). While Georgia’s Medicaid expansion will increase access to breast cancer treatment to eligible adults 19-64, the proposed 80 hours per month of working, volunteering, training, or studying does not alleviate the burden of managing treatment, household income and childcare.

Furthermore, there are barriers plaguing access to genetic counseling and testing services in the Black community. These services are valuable for those with a family health history of cancers to determine whether or not genetic mutations known to cause increased risk for breast and other cancers (such as mutations in BRCA1/BRCA2 genes) are present. One of the root causes of the genetic testing disparity is the lack of knowledge and communication of genetic testing in the Black community. Black men and women do not participate in genetic testing at the same rate as whites (Huang et al. 2014). Implicit

racial bias is associated with negative markers of communication among minority patients and may contribute to racial disparities in processes of care related to genetic services (Schaa et al., 2015).

Social Determinants of Health

The percentage of insured in the Atlanta MTA is lower than the national average of 92 percent (Berchick et al., 2019). There are 255,000 people in Georgia who are in the coverage gap. Clayton County reports the highest percentage of the population that is uninsured at 20 percent (Table 18). Fulton County reports the highest percentage of Black women over the age of 45 who live under the poverty line at 21 percent. Consistent with the literature, focus group participants shared that the type of insurance they have influenced the quality of care received. Some survivors reported feeling that having Medicaid and receiving treatment at the safety net hospital, Grady Hospital, did not get them access to the best quality treatment and medication and led to mistrust. The literature shows that among Black breast cancer patients, a woman's insurance type was a significant predictor of mistrust of the medical establishment. Women with Medicaid expressed greater mistrust and suspicion compared to women with private insurance or private insurance and Medicare (Sutton et al., 2019).

Regardless of insurance status, Black women are likely to encounter health care staff with discriminatory attitudes and behaviors. Clayton, Cobb, DeKalb and Douglas counties all reported the highest percent of Black women feeling like their experiences seeking health care have been worse than other races at 13 percent. Twenty percent of Black women in Fulton County reported feeling emotionally upset by how they were treated because of their race (Table 11). Most focus group participants described encountering personally mediated racism at work. Some noted being unsure if the discrimination they experienced in the health care system was due to having Medicaid or being an Black woman. Either way, research has demonstrated the long-term and adverse effects of personally mediated racism on psychological wellbeing, mental health, and other healthy-living practices (such as alcohol and drug use, sleep disturbance, and eating patterns) (Bailey et al., 2017; Kwate et al., 2003). The research also points to the links between personally mediated racism and biomarkers of disease, including allostatic load (Williams & Mohammed, 2013).

While most health care facilities and breast cancer resources are concentrated in Fulton and DeKalb counties, this has not been enough to mitigate the breast cancer burden for Blackwomen in the Atlanta MTA, and the SDOH data present the larger story. Fulton and DeKalb counties are significantly more segregated than all the remaining counties, which is in turn associated with racial and ethnic health care disparities (Gaskin et al., 2012). Residential segregation is connected to redlining, which has led to many Black communities with higher concentrations of poor quality housing and limited opportunities for higher education, gainful employment and quality health care (Kramer & Hogue, 2009; Landrine & Corral, 2009).

In conclusion, breast cancer inequities across the care continuum in the Atlanta MTA persist due to residential segregation, economic insecurity, and institutional experiences of personally mediated racism. Taken together, these factors severely reduce the timeliness and quality of care that Black women receive across the cancer care continuum.

Recommendations

Komen's Stand for H.E.R. inititive is a substantial undertaking to dismantle the systems that perpetuate the growing breast cancer inequities experienced by Black women. Findings from the Atlanta MTA landscape analysis suggest that the work ahead requires interventions at multiple levels of the system:

- the **micro** level (the level at which patients and providers interact),
- the **mezzo** level (the level at which systems interact), and
- the **macro** level (the policy level).

This framework reflects that the health system is multidimensional, ever-changing, and has the potential to facilitate or impede population health. For most, the lasting impression of the health system begins at the **micro** level – where providers and patients interact. As Black women progress along the breast cancer continuum of care, they encounter other microsystems, and the complexity of their experience increases. Access to and quality of these microsystems vary, and there is a need for these systems to interact and relate in a manner that centers on the experiences of Black women. When multiple microsystems intersect, the **mezzo** system is formed and the health experience becomes more complicated, *particularly if there is no navigation assistance or care coordination*. System functionality at the micro and mezzo levels is directed by policies and resources within and beyond the organization – the **macro** level.

The following recommendations apply this systems framework and address specific changes, strategies, or interventions at the micro, mezzo, and macro levels. These recommendations are intended to work in concert and not as discrete changes. Recommendations acknowledge that the systems and their components are relational, non-linear, and dynamic. Thus, suggested strategies and interventions should be coordinated with communities, in keeping with a collaborative approach to advance breast health equity for Black women. This provides a mechanism for community/stakeholder engagement and recognizes the informal and formal systems and networks of social support that are accessed by Black women.

These recommendations represent actionable strategies as the bridge between social determinants of health and the breast cancer care experience of Black women and are intended to be a call to action for all community-based organizations, policymakers, hospitals, healthcare providers, faith-based organizations, civic leaders and citizens. The recommendations are offered as evidence-informed strategies to reduce breast cancer disparities among Black women.

Micro-Level Strategies

Increase access to culturally responsive patient navigators.

Black women exercising decision-making and/or practicing self-advocacy within the health care setting are often ignored or met with disapproval. For some women, experiences of not being listened to by their providers led to delays in treatment and deepening mistrust. Historical injustices inflicted by the health care system and continued personally mediated provider biases exacerbate barriers to care. Given the importance of patient-provider communication and the ability of providers to exercise cultural

sensitivity, the role of patient navigators as "translators" during health care visits, and as a "support system" after the visit is essential.

Evidence indicates that patient navigation can be effective in improving mammography screening (Baik, Gallo, & Wells, 2016; Scheitler, Shimkhada, Ko, Glenn, & Ponce, 2018); improving time to diagnostic resolution; and supporting completion of breast cancer treatment (Castaldi, Safadjou, Elrafei, & McNelis, 2017; Markossian, Darnell, & Calhoun, 2012).

Furthermore, the field needs diverse and culturally responsive navigators who have expertise and knowledge of the Black community, and are responsive to cultural and social norms, including at the intersection of religion and breast cancer care. According to focus group participants, Black patient navigators were highlighted as particularly valued resources. Black patient navigators, more likely to reflect the lived experience of Black breast cancer patients, serve as a key conduit between patients and their providers. They offer expertise in navigating the health care system and can offer resources to help integrate clinical care with mental health and related support, such as transportation assistance.

The breast cancer community should continue to fund patient navigator services to increase breast cancer patients' access to these invaluable services. A network of culturally responsive, trained patient navigators who represent the Black community should be built and supported. There are various ways to support patient navigators, such as funding culturally competent patient navigator trainings, and funding patient navigator services to increase breast cancer patients' access to these invaluable services. Additionally, providing capacity building assistance to a CBO to serve as a resource to local patient navigators as they work to enhance skills and knowledge may facilitate further expansion of a corps of patient navigators as well as create another linkage between community and healthcare system.

Implement a culturally relevant health promotion campaign intended to increase knowledge of screening guidelines, especially among the never-screened and those at high-risk.

Although data show that many Black women are being screened, the qualitative data from the focus groups pointed to confusion about the varying screening recommendations (from the American Cancer Society, the American College of Radiology, and the United States Preventative Services Task Force). Quantitative data also showed screening rates below the national average among certain counties, which may be driven by a combination of factors beyond this confusion to include financial barriers, fear, and mistrust of the healthcare system.

The breast cancer community has an opportunity to support a health promotion campaign that clarifies current screening guidelines; educates about the role family health history plays in determining risk of breast cancer and resulting recommended age at screening onset and interval; and to encourage further assessment of suspicious findings through diagnostic exams. In addition, patient education is needed about low- and no-cost options for the uninsured as well as programs to overcome barriers to care (such as vouchers for services, financial assistance for transportation or childcare) to ensure Black women know that mammograms can be accessed.

Community-based organizations can play an integral role in providing education and breast cancer services to the Black community. Partnerships with community-based organizations for community engagement in the Black community can aide in building community trust and providing culturally

competent services and resources such as community education on screening and diagnostic services, referrals to screening services, linkages to culturally responsive community navigators, and treatment assistance.

This campaign and partnerships should be rigorously evaluated, and if done effectively should demonstrate significant increases in awareness and uptake among never-screened and late-screened African American women around these programs as well as uncover some the root causes of late-stage diagnosis among Black women.

Increase education about family health history to identify high-risk families and offer genetic counseling and testing to meet the need.

Individuals who have first-degree family members with a history of disease may benefit from genetic testing which may lead to early screening and early detection, implementing preventive actions, participating in research trials, and even accessing interventions that could slow or prevent disease progression. However, several studies show that Black women are less likely to have genetic testing.

Various studies assessed the reasons why people of diverse ancestry take advantage of genetic testing in such small numbers. For example, a study conducted by Glenn *et al.* from 2004 to 2006 revealed that among Black, Asian, and Latina women, a leading reason why these women did not undergo a *BRCA* gene test was lack of awareness of the availability of this service (Glenn *et al*., 2012). In addition, health care providers may not obtain family history information from non-White women at the same rates as White women (Murff et al. 2005). Lower rates of discussing family history of breast cancer with Black women may further translate into reduced rates of referring these women to genetic counseling.

In Georgia, the screening mammography rate for Black women over the age of 40 is 79.4 percent, compared to 72 percent of white women in the same age range. While Black women are getting screened at high rates, the breast cancer mortality rate is higher for Black women than white women in most counties in the MTA where data is available for both demographics (see Table 8). The qualitative findings indicate community uncertainty of the appropriate age for screening with some saying 50-years-old is the appropriate age for a first screening mammogram. Other community members shared concerns about Black women in their 30s receiving breast cancer diagnosis before the recommended screening ages. This underscores the value of genetic counseling and testing for those at increased hereditary risk for breast cancer.

The breast cancer community has an opportunity to support a health promotion campaign that amplifies the need to discuss family health history so that families may make decisions about their healthcare; to educate about the role genetic testing and counseling can play in overall healthcare; and to provide information on accessing trusted providers of testing and counseling services. While these services are often covered by insurance, a program is needed to provide services to the under- and uninsured families.

This campaign should be rigorously evaluated, and if done effectively, should demonstrate significant increases in awareness and uptake among Black women and their families around these programs and contribute to the growing body of research evidence about the genetic drivers of breast cancer in Black women.

Support implicit bias trainings for providers, administrators, and health care staff.

Providers, patient navigators, and Black women in focus groups all noted how important the doctor-patient relationship can be to supporting women's successful management of breast cancer across the continuum. To establish and solidify that relationship, providers need this type of training that was said to rarely be offered in medical school. As indicated in the findings sections, Black women are likely to encounter health care staff with discriminatory attitudes and behaviors. Clayton, Cobb, DeKalb, and Douglas counties all reported the highest percent of Black women feeling like their experiences seeking health care have been worse than other races at 13 percent. Twenty percent of Black women in Fulton County reported feeling emotionally upset by how they were treated because of their race (Table 11). Most focus group participants described encountering personally mediated racism at work. Some noted being unsure if the discrimination they experienced in the health care system was due to having Medicaid or being a Black woman.

Health care institutions traditionally frame barriers to completing screenings and treatment as individual behaviors and choices, while women described barriers due to personally mediated and institutional racism that arose as they walked into the door of a health care facility. Increased awareness of unconscious bias, the role of cultural humility, and how health care settings have played a part in historic and systemic racism can reframe barriers with a racial equity lens and thereby underpin a much-needed shift in services. It is important that providers and administrators connect health disparities to racial inequities as they closely examine their practices as well as larger policies and systems. They first need greater understanding of the context faced by patients.

Therefore, implicit bias trainings for providers should be implemented and supported for providers, administrators and health care staff. The focus of the trainings could include: 1) basics of implicit bias and the need for cultural responsiveness; 2) challenging racial/ethnic stereotypes using results from this study as stimulus for case examples and content; 3) examining historic and systemic racism in the MTA and their impact on SDOH; 4) improving empathic communication skills related to cancer diagnosis and treatment; 5) cultural humility: and 6) reframing exercises that apply a racial equity lens to health care services and settings.

Provider trainings in doctor-patient relationships could also be tied to ongoing monitoring and evaluation and quality improvement programs.

Expand financial assistance programs to support breast cancer care.

As indicated in the findings sections, residents of the Atlanta MTA face economic vulnerability. At 48 percent, Clayton County reports the highest percentage of the population below 200 percent FPL in the MTA. Fulton County reports the highest percentage of Black women over the age of 45 who live under the poverty line at 21% (Table 18). The Georgia Cancer Consortium acknowledges poverty's role in treatment delays and completion, "While white women have a higher incidence of breast cancer than Black women, Black women are more likely to die of breast cancer. This may be explained by patterns of screening and access to care. Poverty also delays initiating treatment, failure to complete treatment, etc." Focus group participants diagnosed with breast cancer described working hourly jobs with no sick leave at the time of their diagnosis. The majority had to quit and seek outside financial support, and

those with caretaking responsibilities had the added stress of maintaining a household during intense treatment plans.

To lessen the burdens of care and mitigate barriers to screening, diagnosis and treatment, different types of programs specifically for Black women in the MTA should be established or where existing, expanded. Financial assistance programs contribute toward costs associated with breast cancer care, including copays, costs of medications and supplies, as well as costs of childcare, transportation and living expenses. Other programs may provide direct services, including childcare, transportation to/from appointments, housecleaning, and nutritional services to lessen the burdens Black women may face when seeking and receiving breast cancer care. Programs should be tailored by county to address the barriers and burdens of care in specific areas of the MTA.

The breast cancer community can also drive collaboration health systems, counties and/or county partners to advocate for financial assistance programs to meet deductibles for high-deductible health plans or cost sharing for underinsured women. Non-profit health systems could examine whether offering financial assistance programs would qualify under Community Benefit, the Internal Revenue Service Requirement that nonprofit 501(c)(3) hospitals provide services or support activities that promote heath in their communities to maintain tax-exempt status (Community Benefit Connect).

Mezzo-Level Strategies

Support Quality Improvement (QI) initiatives along the breast cancer continuum of care.

Quality Improvement (QI) initiatives employ qualitative and quantitative methods to enhance the effectiveness of interventions, programs and policies. Institutionalizing a commitment to quality improvement supports continuous learning and refinement in ways that ensure limited resources are used optimally and service delivery objectives (e.g., quality care) are achieved.

Research and subsequent mobilization by the Metropolitan Chicago Breast Cancer Taskforce (renamed Equal Hope) in the City of Chicago identified needs for quality improvement as being pivotal to addressing racial inequities in breast cancer. The Taskforce found that facilities that served predominantly minority women were less likely to be academic or private institutions, less likely to have digital screening mammography, and less likely to have dedicated breast imaging specialists reading the films. Collaborative QI efforts, such as those launched through the Taskforce, successfully reduced mortality rate disparities in Chicago observed in 2005, such that the ratio between Black and white women has fallen to half the differences in rates and remains in a downward trend (Sighoko et al., 2017) (see Table 8).

The breast cancer community should support QI initiatives in the major health systems in the MTA, as well as in non-hospital and non-health system care settings, such as federally qualified health centers that are more accessible to priority populations. The QI approach may include such pursuits as monitoring progress relating to treatment adherence, assessing care experiences, and reducing time to diagnosis among Black women. Engagement could include some of the following organizations to build on or begin QI initiatives along the breast cancer continuum of care: the American Society of Clinical Oncology, the National Minority Quality Forum, the National Comprehensive Cancer Network, the American Medical Association, and the American Hospital Association, among others.

Increase access to integrated care to improve the breast cancer care experience.

Particular aspects of the breast cancer continuum that warrant further investigation and intervention include the availability of accessible, high-quality screening, low cost or free diagnostic mechanisms, and various treatment options for Black women. The integration of oncological, primary care and mental health services is valuable. Overweight and obese women are represented among the increased incidence rate for breast cancer after menopause. Reducing a woman's risk for breast cancer through routine primary care and help improve weight-related risk. Additionally, the breast cancer experience is characterized by an increased toll on mental health. Poor mental health also increases stress, a risk factor for breast cancer. Therefore, the integration of mental health services along the breast cancer care continuum is also important.

Fund collaborative initiatives at the community level to address economic insecurity of Black women in the Atlanta MTA.

Collaborative approaches promise to better leverage the significant resources needed to attain ambitious goals that lie beyond the capacity of individual institutions or foundations. The intersectional issues that weave together to create the SDOH in any community require full engagement of not only medical and public health sectors, but social services, housing and urban planning, economic

development, environmental and occupational protections, educational systems, transportation infrastructure, and healthy eating and active living initiatives. Fulton and DeKalb counties are significantly more segregated than all the remaining counties. Residential segregation is connected to redlining, which has led to many Black communities with higher concentrations of poor quality housing and limited opportunities for higher education, gainful employment and quality health care (Kramer & Hogue, 2009; Landrine & Corral, 2009). Atlanta MTA focus group participants expressed concerns of having less access to high-quality breast cancer screening, treatment, care, and resources due to their income, race, and where they live.

Stakeholders may want to consider aligning efforts with community organizations and philanthropy in Atlanta that are committed to promoting racial and economic equity and opportunity. These organizations may include Community Foundation of Greater Atlanta, Atlanta Regional Collaborative for Health Improvement, and Atlanta Women's Foundation's whose goal is to support organizations that improve the lives of economically vulnerable women and girls in Clayton, Cobb, DeKalb, Fulton, and Gwinnett counties. Komen's support of multi-sector and place-based partnerships focused on economic and racial equity can favorably influence the many mutually reinforcing systems (e.g., housing, education, employment, earnings, credit, and criminal justice) that perpetuate the legacy of racism. This recommendation will help address Atlanta MTA focus group participants' concerns that those who live in predominantly Black communities have less access to high-quality health care and resources compared to those in predominantly white communities.

Macro-Level Strategies

Support a root-cause analysis to uncover the drivers of late-stage diagnosis rates.

Black women in the Atlanta MTA are more likely to die from breast cancer, even though they are more likely to receive a screening mammogram and are diagnosed with the disease at lower rates. Additionally, Clayton, DeKalb, and Fulton counties report rising rates of breast cancer incidence (See Table 5) (See Table 6) among Black women. DeKalb and Clayton counties show high concentrations of late-stage diagnoses, with the majority of cases being Black women (Map 1). These data are reinforced by qualitative data findings that Atlanta MTA Black women reported finding lumps on their own and being told to wait for long periods of time and not worry about masses. These factors may be associated with delayed diagnosis, influencing the late-stage diagnosis rates.

A further root cause analysis (RCA) process may identify the contributing factors and underlying causes of late-stage incidence, as well as the key leverage points where intervention would have a significant impact on breast cancer inequities, strengths and areas of opportunity. By conducting a RCA, stakeholders, including non-health stakeholders, can begin to understand the complexity of late-stage incidence and poorer survival in their community. Participants of a RCA process should include breast cancer survivors, community-led efforts (e.g., workers' unions, non-profits, food banks, community health centers, women's organizations, housing alliances, etc.), and research centers with long-standing academic-community partnerships. The RCA includes an action planning process to determine how to maximize key leverage points to address root causes. Additionally, the RCA process can spur innovative ideas and strategies guided by best practices for addressing the factors and underlying causes that impact late-stage incidence and survival in the MTA. The RCA can build upon analyses of the reach and quality of breast cancer services that have already been conducted by area researchers and their collaborators (Ansell et al., 2009); yet place a greater emphasis on racial equity and prevailing SDOH.

Once complete, the recommended next step is to engage in partnerships with the RCA stakeholders and provide grants to implement the RCA action plan among these organizations' respective members and networks.

Support efforts to develop guidelines and policies that address disproportionate breast cancer mortality among Black women, including increased genetic counseling and testing services.

Black women experience higher rates of death from breast cancer due to a combination of factors including barriers to early diagnosis, the aggressive nature of certain breast cancers that are more prevalent in Black women (TNBC, for example), and systemic healthcare challenges.

The breast cancer community should re-examine breast cancer screening and clinical care guidelines with a racial equity lens, and develop strategies (e.g., new guidelines, policies, practices) that aim to address the multi-level influences that lead to breast health disparities. Black women are at higher risk of dying from breast cancer, which is influenced by social determinants of health, but also in part because Black women get more aggressive breast cancer at earlier ages, so in part driven by heredity. Such efforts would allow us to move beyond the "one-size-fits-all" approach to breast cancer screening, diagnosis and treatment to a more personalized approach based on individuals' risk, social inequalities and other factors that drive disparities. In collaboration with patient advocates and the community, the resulting strategies, which may include new guidelines, policies, and practices would provide health care providers with a better framework for delivering patient care, may help overcome the implicit bias of some HCPs and could be used to inform and/or monitor quality improvement initiatives.

As an example, breast cancer risk is one area that warrants further investigation, particularly with regard to differences in risk factors by race/ethnicity, that could inform more personalized strategies for breast cancer screening and treatment. In March 2018, the American College of Radiology (ACR) and the Society of Breast Imaging (SBI) recommended that all women, especially Black women (and those of Ashkenazi Jewish descent), have a breast cancer risk assessment no later than age 30 so those at higher risk can be identified and their screenings and breast health care be appropriately modified. The societies also made recommendations for modifications to the screening approach for women with specific risk factors and/or at higher risk of developing breast cancer; modifications included changes to the age at which screening should start, as well as the frequency and modality (mammography, ultrasound, MRI, etc.) of screening.

Adopting a risk-based approach to breast cancer screening and treatment would benefit from additional research to better understand risk through an equity lens to inform the development of better risk assessment tools. Related strategies to consider include increasing access to genetic counseling and testing, integrated healthcare, and partnering across multiple providers to ensure personal risk for breast cancer is determined early. Additionally, public policy changes will be required to ensure evidence-based recommendations for screening and treatment will be covered by health insurance plans with little to no cost to the patient. Changes in guidelines, policies and practices could facilitate a risk-based approach to screening and treatment that could decrease the number of Black women who present with later-stage breast cancers and reduce disparities in breast cancer mortality.

Advocate to expand Medicaid eligibility and eliminate burdensome restrictions that would limit access to Medicaid in Georgia.

There are 255,000 people in Georgia who are in the coverage gap (Garfield et al., 2020). States have the option to expand their Medicaid program to individuals with incomes of up to 138 percent FPL. On

October 2, 2020, Georgia's requests for 1115 and 1332 waivers were approved by CMS. for The 1115 waiver proposal for partial Medicaid expansion, effective July 2021, for adults ages 19-64 with incomes below 100 percent FPL and who also meet work requirements of 80 hours per month of working, volunteering, training, or studying. Research indicates that healthier Medicaid enrollees are more likely to be able to work, and that Medicaid enrollees with more serious illnesses are unable to work due to their debilitating illnesses. If fully implemented as proposed, the 1332 waiver would reduce enrollment in comprehensive coverage and jeopardize quality and affordable health care coverage for patients with acute and chronic health conditions like breast cancer.

The influence and engagement of local community members and local community partners would highlight the disparate impacts of the Medicaid work requirement for Black women and advocate to policymakers that Georgia fully expand Medicaid as called for in the ACA and benefit all Georgians in the coverage cap.

Conduct an analysis of state policies to identify those that present barriers to high-quality care in the Black community.

Reducing breast cancer disparities relies as much on public policy as it does on research breakthroughs. Lawmakers and policymakers at all levels of government play a critical role in making decisions that can help save more lives from breast cancer. While Medicaid expansion is an important part of these efforts, there are many policy issues that can impact access to high quality care, and these vary across states. For example, the Breast and Cervical Cancer Treatment Act created an option for states to provide treatment for women whose cancer was detected through the National Breast and Cervical Cancer Early Detection Program – a program that is a safety-net service for many in the underserved Black community. However, many states are not making the minimum contribution to this program in order to serve all those who need it. These decisions, and others like it, have a detrimental effect on public health and cause persistent disparities.

The public policy landscape should be reviewed to determine if, and which, barriers to high-quality care for Black communities must be addressed through legislative intervention.

Appendix A. Map and Related Measures

TABLE 24. ATLANTA METRO AREA TABLE MAPS

	Map 3. Percent of Population that is Black	Residential Segregation Scores	Map 7. Social Vulnerability Index Score	Map 8. Percent of Households that are Housing-Cost Burdened
Cherokee	7%	29	0.17	26%
Clayton	69%	30	0.92	39%
Cobb	27%	41	0.31	28%
Coweta	18%	40	0.27	27%
DeKalb	54%	73	0.70	37%
Douglas	45%	30	0.54	30%
Fayette	21%	47	0.08	24%
Forsyth	3%	39	0.04	22%
Fulton	44%	73	0.56	35%
Gwinnett	27%	30	0.45	34%
Henry	41%	35	0.36	30%
Newton	43%	34	0.71	33%
Paulding	19%	27	0.20	28%
Rockdale	52%	27	0.62	34%
Spalding	33%	41	0.90	37%
Walton	17%	39	0.33	29%

Sources: American Community Survey 2013-2017 5-Year Estimates (US Census Bureau); 2016 Social Vulnerability Index (US Centers for Disease Control and Prevention); 2016 Comprehensive Housing Affordability Strategy dataset (US Department of Housing and Urban Development); 2019 County Health Rankings (County Health Rankings)

Appendix B. Abbreviations & Glossary

Age-adjusted rates: A weighted average of the age-specific (crude) rates, where the weights are the proportions of persons in the corresponding age groups of a standard population. The potential confounding effect of age is reduced when comparing age-adjusted rates computed using the same standard population. Rates are expressed as the number per 100,000. The age-adjusted rates that appear in this report were calculated by State Cancer Profiles (SCP) using the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program data and methods (National Cancer Institute).

Allostatic load: The "wear and tear" on the body and brain that results from chronic or repeated stress.

Black/white dissimilarity index: A measure of residential segregation that illustrates the evenness with which two mutually exclusive groups (in this case, Blacks and whites) are distributed across the geographic units (in this case, census tracts) that make up a larger geographic entity (in this case, counties). Calculated by County Health Rankings (CHR) using the Index of Dissimilarity formula and data from American Community Survey (ACS) 5-year. Scores range from 0-100 and scores closer to 100 indicate greater segregation. CHR only calculates this measure for counties with at least 100 Black residents (County Health Rankings, 2020e).

Breast cancer stage: An approach to classify and describe cancer's spread or growth in the body. There are various approaches to staging. Health care providers commonly use "TNM" to assess the stage, which stands for:

- Tumor: size and location of tumor;
- Node: whether the tumor has spread to the lymph nodes, and;
- Metastasis: whether the cancer has spread to other parts of the body and to what extent.

Clinical breast examination: A physical exam that a provider performs to check the breasts and underarms for any concerns (e.g., lumps).

Collective impact: A cross-sector approach to solving complex issues on a large scale that offers a different way of working wherein whole systems – health departments, government, businesses, CBOs and participants with lived experiences make a unified effort to collectively address the issue from multiple angles (Kania & Kramer, 2011).

Confidence Interval (CI): Statisticians use a confidence interval to express the degree of uncertainty associated with a sample statistic (e.g., mean, median or other measure). It is usually presented with a probability statement.

Continuum of Care: The clinical continuum of care for breast cancer includes all aspects of screening, detection, diagnosis, treatment, and follow-up.

County Heath Rankings (CHR) percentile: A measure calculated by JSI using the following formula: CHR (numerator) divided by the number of counties in the state (denominator). CHRs are determined through an intra-state, weighted variable process (County Health Rankings, 2016).

Diagnostic screening mammogram: A screening mammogram used to further examine breast cancer symptoms (e.g., a lump) or an abnormal result from a screening mammogram or clinical breast exam using two or more views of the breast.

Fair Housing Act cases: The Fair Housing Act (Title VIII of the 1968 Civil Rights Act) prohibits most discrimination in housing transactions based on federally recognized bases (race, religion, familial status, etc.) Individuals in the US can bring cases to the Office of Fair Housing and Equal Opportunity (FHEO) within the Department of Housing and Urban Development. If there is cause to believe discrimination occurred, the case will go through a legal adjudication process to be resolved.

Federal poverty level (FPL): A measure of income that the US Department of Health and Human Services (HHS) releases annually. The FPL is used to determine eligibility for some benefits and programs, such as Medicaid, and cost subsidies on the health insurance Marketplace. The 2020 FPL is $26,200 for a family of four, and $12,760 for an individual. The data that appear in this report were calculated by the US Census Bureau and indicate the percentage of the population whose annual income is less than twice the 2017 FPL (i.e. 200% FPL). In 2017, the FPL was $24,600 for a family of four and $12,060 for an individual. (Office of the Assistant Secretary for Planning and Evaluation).

Food deserts: Areas defined by the US Department of Agriculture as urban census tracts that are low income and have low access to fresh food within a one-mile radius (U.S. Department of Agriculture Economic Research Service, 2019).

Gentrification: The process whereby a neighborhood or community's characteristics change as more affluent residents and businesses move into an area and displace less affluent residents, often people of color.

Hate crime with a race/ethnicity/ancestry bias motivation: A criminal offense against a person or property that was motivated in whole or in part by the offender's bias against a person's race/ethnicity/ancestry. The FBI collects this data using self-reported data from municipalities and universities. The data included in this report are from 2017. Crimes committed in municipalities that cross county lines are counted for all of the counties in which the municipality is located (U.S. Department of Justice Federal Bureau of Investigation, 2017).

Hazard ratio: Hazard ratio: A measure of how often a health event occurs over time in one group compared to another group. Cancer research often uses hazard ratios to compare a group of patients receiving a cancer treatment to a control group (receiving another treatment or placebo). A hazard ratio of 1 signifies no difference in survival between the groups; a hazard survival less than one or greater than one signifies that survival in one of the groups was better than the other (National Cancer Institute).

Health equity: Equity is the absence of unjust or avoidable differences among groups of people, whether defined demographically, socially, economically or by some other means. Health equity means that every person has a fair opportunity to attain their highest level of health and that no individual should be disadvantaged from reaching this potential.

Housing-cost burden: A measure to indicate the proportion of renters and homeowners that spend 30% or more of their total income on housing. Calculated by the US Department of Housing and Urban Development using the Consolidated Housing Affordability Strategy dataset and the following formula: number of renters and homeowners who spend 30% or more of their total income on housing

(numerator) divided by the total number of households (denominator) (Office of Policy Development and Research (PD&R), 2019).

In situ carcinoma: A condition where abnormal cells are found in the milk ducts or lobules of the breast, but not in the surrounding breast tissue. In situ means "in place" (Susan G. Komen, 2020).

Incidence: The number of new cases of a disease that develop in a specific time period. The breast cancer incidence rates that appear in this report were calculated by SCP using data from the Centers for Disease Control and Prevention (CDC) and SEER, and the following formula: the number of individuals in an area who were diagnosed with breast cancer during a one-year period (numerator) divided by the total number of individuals living in that area (denominator). Incidence rates are expressed in terms of number of cases per 100,000 individuals per year (National Cancer Institute).

Internalized racism: Refers to when members of the stigmatized race devalue themselves and their race, doubt their abilities, reject their ancestry and culture, and have a sense of hopelessness and resignation to subjugation by other races (Jones, 2000).

Invasive breast cancer: Breast cancer is considered invasive when it has spread from its original location into the surrounding breast tissue, and potentially into other parts of the body, such as the lymph nodes.

Jim Crow: Jim Crow refers to a set of laws enacted by 21 states in the southern U.S. and the District of Columbia to enforce and uphold racial segregation. These laws were in place following the civil war and banned by the US Civil Rights Act in 1964 (Krieger et al., 2017).

Jim Crow effect: In the 2017 paper by Krieger, Jahn, and Waterman, the authors describe the Jim Crow effect on breast cancer as an association with higher odds of estrogen receptor negative breast cancer only among Black women in the study (not white women) with the strongest effect observed for Black women born prior to 1965 (Krieger et al., 2017).

Late-stage diagnosis: Cancer that is diagnosed once it has spread beyond the breast to lymph nodes, surrounding tissue or other organs in the body (most often the bones, lungs, liver or brain). The late-stage diagnosis rates that appear in this report are age-adjusted and calculated by SCP as described above (see “incidence” and “age-adjusted”) (National Cancer Institute).

Magnetic resonance imaging (MRI): An imaging technique that provides detailed pictures of organs or soft tissue (including the breast). A breast MRI for screening tends to be used for higher-risk women and may also be used during diagnosis.

Mammogram or screening mammogram: An x-ray image of the breast. Mammograms can be used in a screening phase (e.g., to check for abnormalities in otherwise healthy individuals) or to further examine abnormalities.

Medically underserved: Areas or populations designated by the Health Resources and Services Administration (HRSA) as having too few primary care providers, high infant mortality, high poverty or a high elderly population (Health Resources & Services Administration).

Mortality rate: A measure of death calculated by the National Cancer Institute using SEER and National Vital Statistics System (NVSS) data. Calculated by SCP using the following formula: the number of individuals in an area who died during a one-year period (numerator) divided by the total number of

individuals living in that area (denominator). Expressed in terms of number of deaths per 100,000 individuals per year (National Cancer Institute).

Odds Ratio (OR): A measure of association between exposure and an outcome. The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure (Gordis, 2000).

Percent of adults who are obese: A self-report measure calculated by CHR using the following formula: number of adults over age 20 whose BMI is greater than or equal to 30 (numerator) divided by the total population (denominator) (County Health Rankings, 2020a).

Percent of population that is food insecure: A measure defined by CHR as the percentage of the population "with a lack of access, at times, to enough food for an active, healthy life, or uncertain availability of nutritionally adequate foods." Calculated by CHR using the Core Food Insecurity Model (County Health Rankings, 2020b).

Percent of population with limited access to healthy foods: A measure calculated by CHR using the following formula: population that is low income and does not live within one mile of a grocery store (numerator) divided by the total population (denominator) (County Health Rankings, 2020c).

Personally mediated racism: Refers to assumptions about others' abilities, motives, and intentions, resulting in intentional and/or unintentional actions taken towards others due to their race. This includes maintaining structural barriers and subscribing to harmful societal norms, and manifests as "everyday avoidance," disrespect, suspicion and dehumanization (e.g., hate crimes, police brutality) (Jones, 2000).

Premature mortality rate: A measure of premature death calculated by CHR using the following formula: the number of deaths that occurred among people under age 75 (numerator) divided by the aggregate population under age 75 (denominator). Expressed as the number of deaths under age 75 per 100,000 people. CHR uses data from the National Center for Health Statistics (NCHS) and the NVSS to calculate this measure (County Health Rankings, 2020d).

Prevalence: A measure of the proportion of the population that has a condition within a particular timeframe. The prevalence data that appear in this report are the SCP's "Complete Prevalence Age-Adjusted Percents" for each state in 2017. These statistics were calculated by SCP using estimates derived from state-specific cancer mortality and survival data using a statistical package called MIAMOD (Mortality-Incidence Analysis MODEL). Cancer survival models are derived from SEER Program data and adjusted to represent state-specific survival (National Cancer Institute).

Redlining: This unethical practice systematically restricts access to resources and services (e.g., mortgages, insurance loans, housing) based on the race or ethnicity of individuals and communities.

Social determinants of health: The conditions in the places where people live, learn, work, and play that affect a wide range of health risks and outcomes. Examples include, but are not limited to, educational attainment, transportation access, housing security, income, wealth, and experiences of racism.

Structural racism: The system in which policies, institutional practices, and cultural representations work together, often in reinforcing ways to create and perpetuate racial inequity. Structural racism manifests as differential access to goods, services, conditions, opportunities, and access to power.

Social Vulnerability Index (SVI): A measure of the exposure of a population to social vulnerabilities that limit their ability to withstand adverse impacts from multiple stressors to which they are exposed. The SVI is calculated by the CDC using the ACS 5-year report data for 15 social factors (e.g., lack of vehicle access, crowded housing). Scores range from 0.0 to 1.0, with scores closer to 1.0 indicating greater vulnerability (Agency for Toxic Substances and Disease Registry, 2018).

Supplemental Nutrition Assistance Program/Electronic Benefit Transfer (SNAP/EBT): SNAP is a federal benefits program that provides eligible, low-income individuals and families with funds to purchase eligible food in authorized retail food stores via an Electronic Benefits Transfer card.

Triple-negative breast cancer: A type of breast cancer that is estrogen receptor-negative, progesterone receptor-negative, and human epidermal growth factor receptor 2 (HER2)-negative.

Ultrasound (sonogram): A diagnostic test that creates images of tissues and organs. A breast ultrasound is typically used after an abnormal screening mammogram, clinical breast exam, or breast MRI result.

White flight: The departure of white people from places (such as neighborhoods or schools) increasingly or predominantly populated by people of color (Merriam-Webster).

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