STATE OF GEORGIA
STATE HEALTH ASSESSMENT

2016

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Acknowledgements

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PURPOSE

The Georgia Statewide Health Assessment will provide a foundation for efforts to improve the health of Georgia's population. The statewide health assessment provides the general public and policy leaders with information on the health of the population and the broad range of factors that impact health. This information will be instrumental in setting priorities, planning, program development, funding applications, policy changes, coordination of resources, and new ways to collaboratively use state assets to improve the health of the population.
Process

The Georgia Department of Public Health (DPH) used a modified Mobilizing Action through Planning and Partnership (MAPP) assessment strategy to develop the Georgia Statewide Health Assessment. DPH conducted four MAPP assessments. Each MAPP assessment contributed important information in the development of the Georgia Statewide Health Assessment.

STATEWIDE HEALTH STATUS ASSESSMENT

DPH utilizes DPH Online Analytical Statistical Information System (OASIS) https://oasis.state.ga.us, a web-based tool that allows access to publicly available health data and statistics for the state of Georgia. OASIS contains both primary and secondary data from a variety of sources. Selected Measures of Health Status for 2015 were identified by a diverse group of public health professionals.

STATE PUBLIC HEALTH SYSTEM ASSESSMENT

DPH utilized the National Public Health Performance Standards Program (NPHPSP) Local Public Health System Assessment (LPHS) as a guide for developing a DPH Public Health System Survey. The survey assessed DPH's activities related to providing the 10 Essential Public Health Services (EPHS). These include:

1. Monitor health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships and action to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure competent public and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.

The survey was intended to help the DPH gain an understanding of its performance by identifying strengths and opportunities for improvement.

COMMUNITY THEMES AND STRENGTHS ASSESSMENT

DPH held five regional focus group sessions with public health partners across the state. The sessions were facilitated by Georgia Southern University's Jiann-Ping Hsu College of Public Health, to gain feedback on health

data, identify priority health issues, and identify available assets and resources. DPH subject matter experts presented the Selected Measures of Health Status 2015 to the focus groups. Participants were asked to provide feedback on important health issues in their area, what actions should DPH take to address these health issues, and what assets are available to assist DPH in addressing these health issues.

FORCES OF CHANGE ASSESSMENT

DPH, in conjunction with the University of Georgia's School of Public Health Outreach Center, held a session on future issues facing public health at the UGA State of Public Health conference on Oct. 6, 2015. This conference was attended by a diverse group of public health professionals. This group identified a series of issues ranging from limitations of salary structure for public health professionals in Georgia to national forces, such as a shift to value-based healthcare reimbursement models.

PART I. SELECTED MEASURES OF HEALTH STATUS

INTRODUCTION

Health is defined by the World Health Organization as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.[1] A person and a community's or population's health are determined by many factors, including individual behavior, health care, genetics, and the social and physical environment. This means that the health of the people of the State of Georgia—both the current status and past status—is not the result of any single factor, but rather is the result of a complex series of relationships between behavior, environment and health care.

Although health care is often thought of as the most important factor influencing health, a widely-used epidemiologic study suggests that it is in fact responsible for only about 10 percent of health status.[i] Biology, genetics, and race influence which health conditions a person is predisposed to, and ability to cope and resilience to threats to health account for about 30 percent of health outcomes. The remaining 60 percent of health is attributable to the social and physical environment in which a person lives. Health behaviors—alcohol, tobacco and other drug use, nutrition, physical activity and receipt of preventive screenings— account for about 40 percent. And, social and economic factors like education, employment, housing and transportation factors account for about

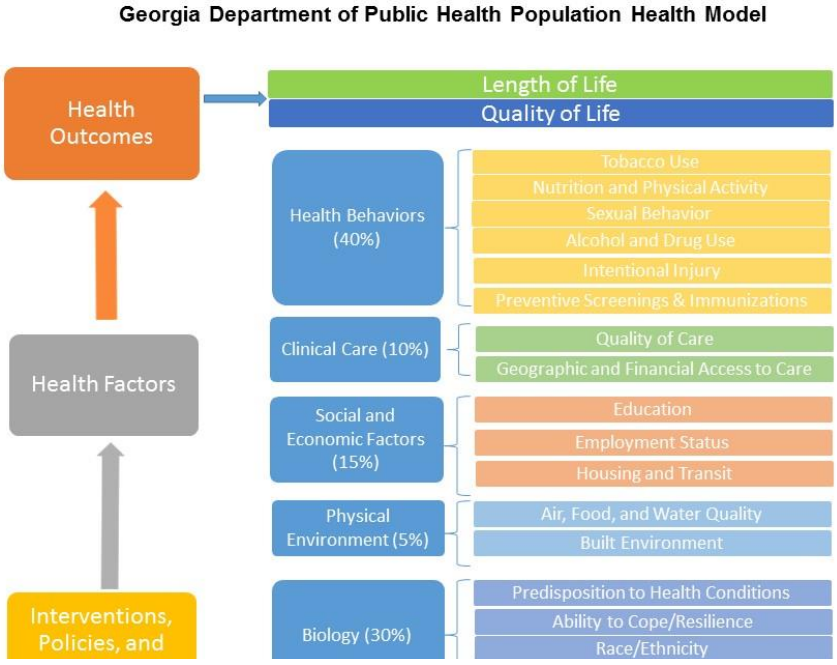


Figure 1. Georgia population health outcome model

[1] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, and 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

15 percent of health outcomes. And, the physical environment including air, water, and food quality as well as the built environment are responsible for the remaining 5 percent of health outcomes.

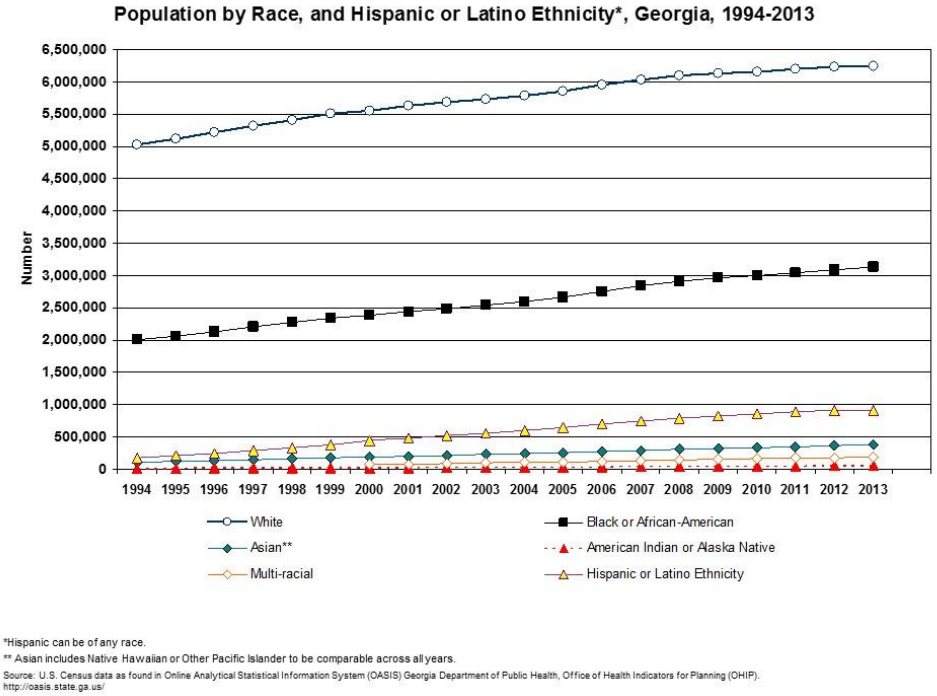
To explain this relationship between health factors and to demonstrate opportunities to improve population health outcomes, the Georgia Department of Public Health adopted a model that incorporates these factors that influence length and quality of life (Figure 1).

This document, Georgia's Statewide Health Assessment, is a high-level summary of the health status of Georgia. It contains two parts. In Part 1, indicators reflecting all parts of this model are listed. These indicators were selected with input from a wide range of internal and external public health professionals and the public to serve as a representative set of data points and trends to provide insight into the health status of Georgia. Topics covered in this health assessment include chronic disease; intentional and unintentional injury; infectious disease; maternal and child health, environmental health; and mental health and drug abuse. The indicators also reflect health disparities, where applicable and data are available.

Part 2 contains the context for these indicators and an assessment of the public health system assets in Georgia. Georgia's public health system consists of 159 county health departments and county boards of health divided into 18 health districts along with a state office. The system also comprises innumerable partners from the following sectors—health care; education, private employers, insurers, agriculture, information technology and local, state and federal government.

GEORGIA DEMOGRAPHICS

Since 1994, Georgia's total population has increased, as has each race group and Hispanic ethnicity. In 2013 Georgia was 62.5 percent white, 31.4 percent black or African-American, 3.7 percent Asian, 0.5 percent American Indian or Alaska Native, 1.9 percent multi-racial, and 9.2 percent Hispanic of any race (Figure 2.)



*Hispanic can be of any race.
** Asian includes Native Hawaiian or Other Pacific Islander to be comparable across all years.
Source: U.S. Census data as found in Online Analytical Statistical Information System (OASIS) Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP). http://oasis.state.ga.us/

Figure 2. Georgia population by race, and Hispanic or Latina ethnicity, Georgia 1994-2013

A population pyramid graphically displays a population's age and sex composition. Horizontal bars present the numbers of males and females in each age group. The sum of all the age-sex groups in the Total population pyramid equals 100 percent of the population. Each year a new cohort is born and appears at the bottom of the pyramid, while the cohorts above it move up. As the cohorts age, they inevitably lose members because of death and may gain or lose members because of migration. Such pyramids can tell a great deal about the demographics, and likely health status, of a population at a glance. Populations differ as a result of past and current patterns of fertility, mortality and migration.

The general profile of Georgia's population pyramid is one of slow growth. A rapid growth profile would have a much larger base showing people in younger ages, and a zero or decreasing growth profile would show roughly equal numbers of people in all age ranges, tapering off gradually at the older ages. Compared to the pyramid of 1994, Georgia now has proportionally less people in working ages, and a higher age dependency ratio (number of people in working ages compared to those either very young or very old) (Figure 3).

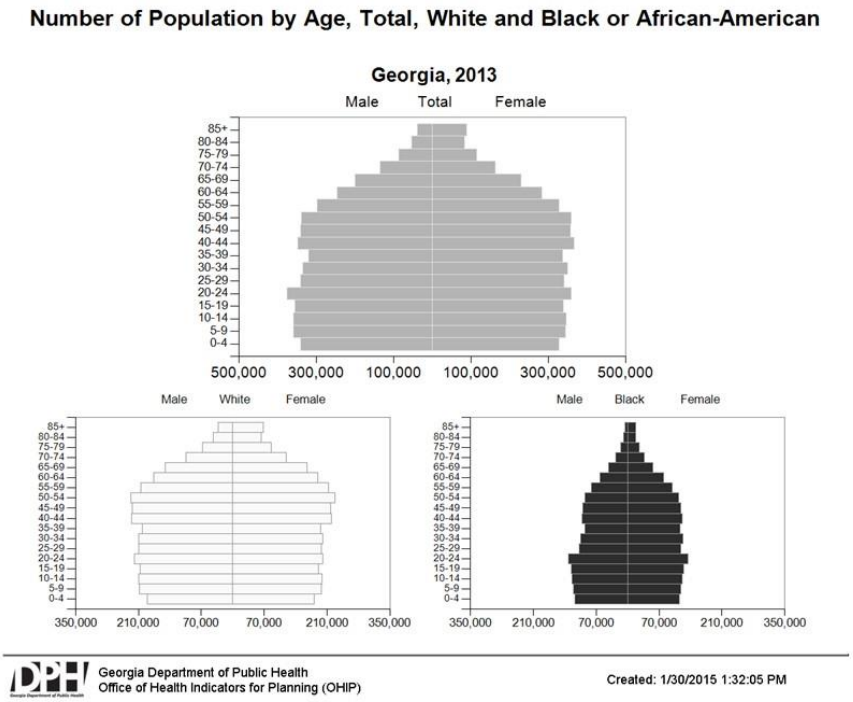


Figure 3. Number of population by age, total, white and black, Georgia, 2010

Table 1. Demographic population totals 2010, Georgia	
Total Population	9,687,653
Male Population	4,729,171
Female Population	4,958,482

Table 2. Population by Races 2010, Georgia		
Race	Population	percent of Total
Total Population	9,687,653	100
White	5,787,440	59
Black or African-American	2,950,435	30
Hispanic or Latino	853,689	8
Some Other Race	388,872	4
Asian	314,467	3
Two or More Races	207,489	2
American Indian	32,151	Below 1 percent
Three or more races	15,920	Below 1 percent
Native Hawaiian Pacific Islander	6,799	Below 1 percent

Native Hawaiian	1,319	Below 1 percent
Alaska Native tribes	220	Below 1 percent

Table 3. Demographic median age by sex 2010, Georgia	
Both sexes	35
Male	34
Female	36

Table 4. Demographic household type 2010, Georgia	
Total	3,585,584
Family led homes	2,457,810
Husband-wife family	1,714,573
Other family	743,237
Population of male led with no wife present	175,090
Population female led with no husband present	568,147
Population of Nonfamily homes	1,127,774
Population living alone	909,474
Population not living alone	218,300

Table 5. Demographic population in families by age 2010, Georgia	
Total Population of families living in Georgia	7,781,104
Population Under 18 years	2,443,455
Population 18 years and over	5,337,649

Table 6. Demographic population of homes with people 60 year olds and over 2010, Georgia	
Total Population	3,585,584
Population of homes with one or more people 60 years and over:	1,082,432
1-person household:	356,560
2-or-more-person household:	725,872
Family households:	693,351
Nonfamily households:	32,521
Population of homes with no people 60 years and over:	2,503,152
1-person household:	552,914
2-or-more-person household:	1,950,238
Family homes:	1,764,459
Nonfamily homes:	185,779

Within Georgia's 159 counties, there is a great deal of variation in population structure and socioeconomic status (Figure 4). Demographic clusters were created from 25 variables relating to age, income, family structure, housing value and type, education attainment and employment type. The census block groups were first classed into four major groups, which were further partitioned into eighteen distinct demographic clusters. The legend is arranged by the derived socioeconomic status, from "higher" to "lower," within the four major groups and their respective demographic clusters. As expected, the highest socioeconomic clusters are in the inner suburbs of metro Atlanta and surrounding other large urban areas in the state.

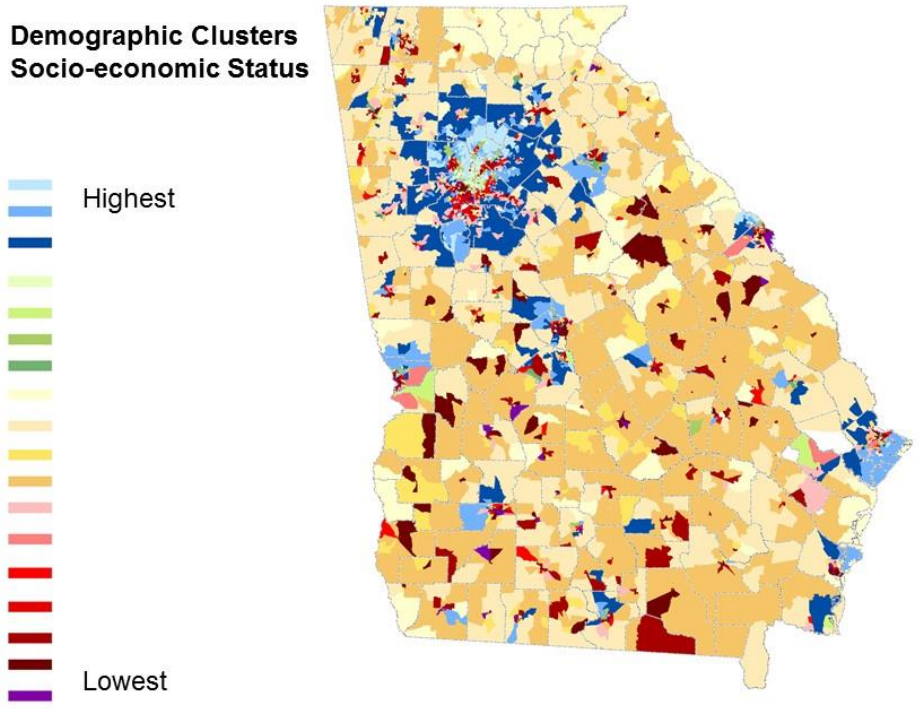
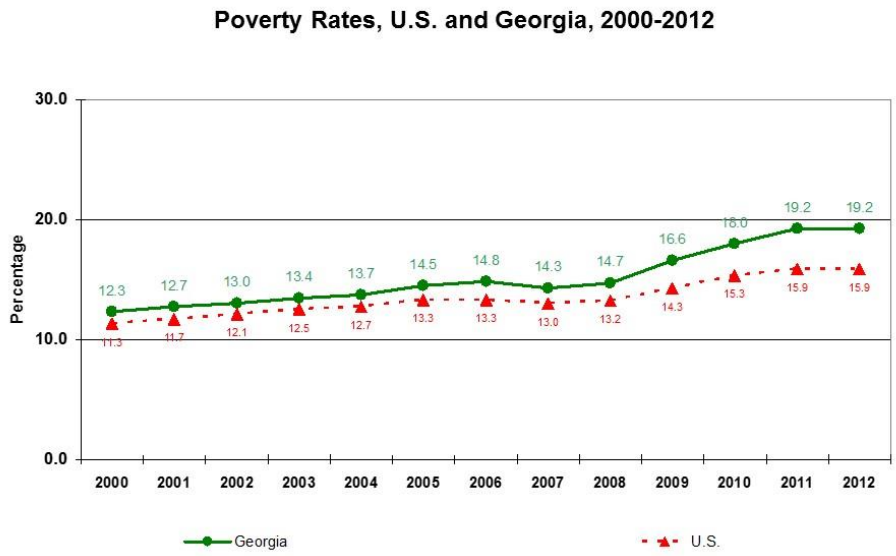


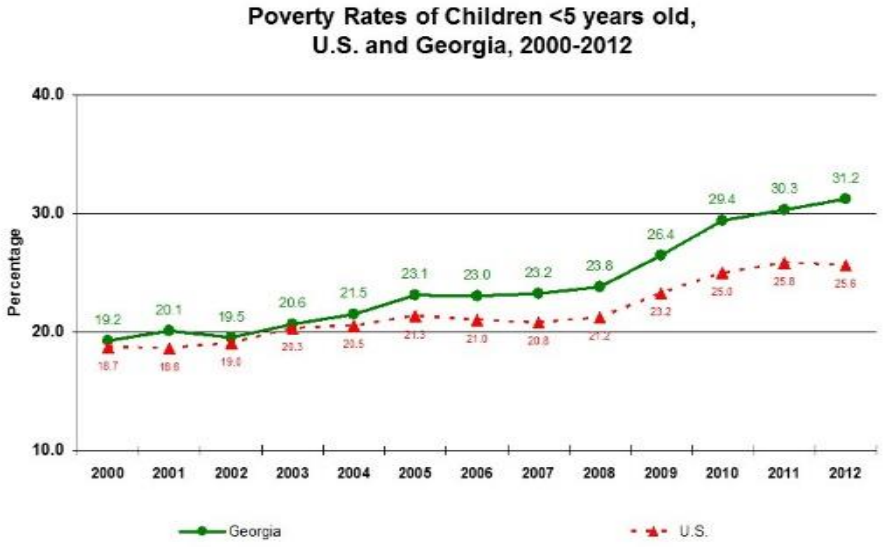
Figure 4. Demographic clusters of Georgia, 2013

Regarding lower socioeconomic groups, Georgia's trend in poverty rates have outpaced the U.S during 2000 to 2012 (Figure 5). Moreover, increases in poverty are disproportionately found in children less than 5 years of age during 2000 to 2012 (Figure 6). Concomitantly, unemployment rates in Georgia have outpaced the U.S. (Figure 7). These socio-demographic facts and trends both influence and reflect Georgia's health status and need for public health services. Several key health outcomes and related behaviors are discussed in the following sections.



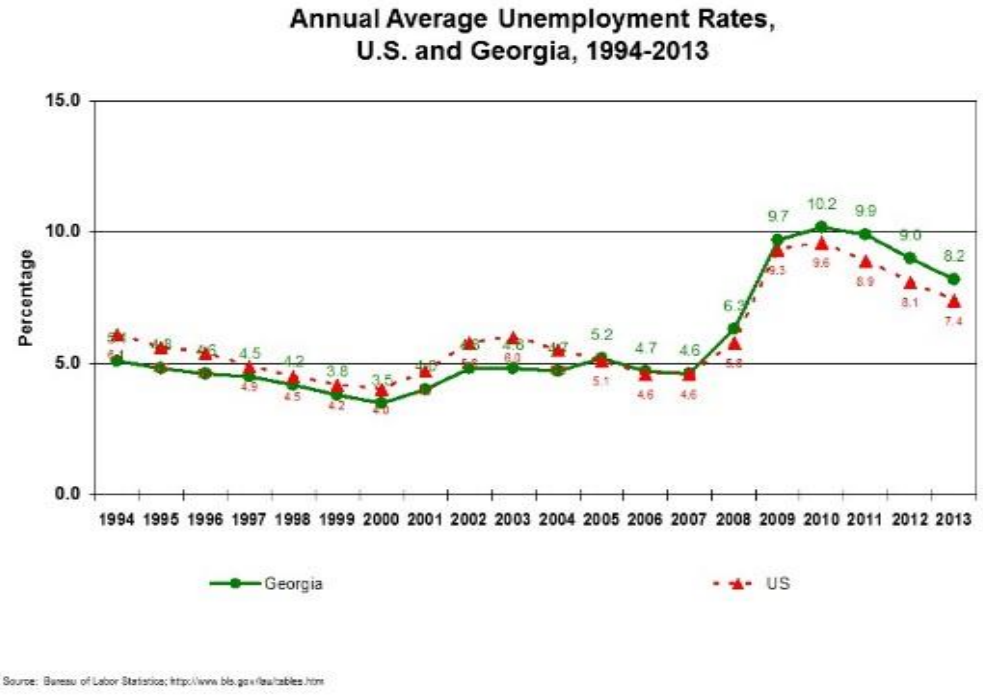
Source: U.S. Census Small Area Income and Poverty Estimates (SAIPE). http://www.census.gov/did/www/saipe/data/interactive/

Figure 5. Poverty rates, US and Georgia, 2000-2012



Source: U.S. Census Small Area Income and Poverty Estimates (SAIPE). http://www.census.gov/did/www/saipe/data/interactive/

Figure 6. Poverty rates of children <5 YOA, US and Georgia, 2000-2012



Source: Bureau of Labor Statistics; http://www.bls.gov/lau/tables.htm

Figure 7. Annual average unemployment rates, US and Georgia, 1994-2013

LEADING CAUSES OF PREMATURE MORBIDITY AND MORTALITY AMONG GEORGIANS: OVERVIEW

The 10 leading overall causes of mortality in Georgia over the five-year time period from 2009-2013 were heart disease, cancer, chronic lower respiratory diseases, stroke, unintentional injury, Alzheimer's disease, diabetes, kidney disease, septicemia, and influenza and pneumonia (Figure 8). However, when we look at causes of early death, as measured by years of premature life lost before age 75, the list of leading causes looks different in some important ways. The leading causes of premature life lost in Georgia over the five-year time period from 2009-2013 were cancers, heart disease, unintentional injury, perinatal period conditions, suicide, homicide, stroke, chronic lower respiratory diseases, diabetes and birth defects.

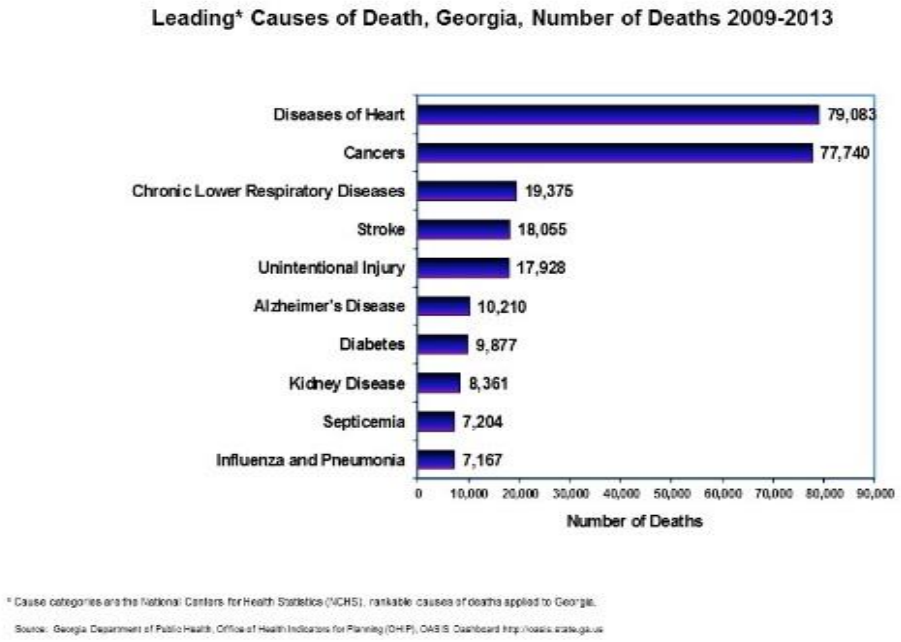


Figure 8. Leading causes of death, number of deaths, Georgia, 2009-2013

While chronic diseases remain prominent on both the all causes and leading causes lists, perinatal period conditions such as infant and maternal mortality, unintentional injuries such as from motor vehicle crashes, and intentional injuries such as death by suicide and homicide appear as significant causes of early death among Georgians.

Among those premature deaths taken together, the underlying causes responsible for approximately 70 percent of the potential years of life lost are tobacco, poor diet and physical inactivity. Infectious disease and alcohol are responsible for another nearly 15 percent. Firearms, toxic agents, illicit drug use, and sexual behavior account for the remaining years of potential life lost (Figure 9). Causes of early death are the areas where public health has the greatest opportunity to intervene through prevention, promotion and protection measures.

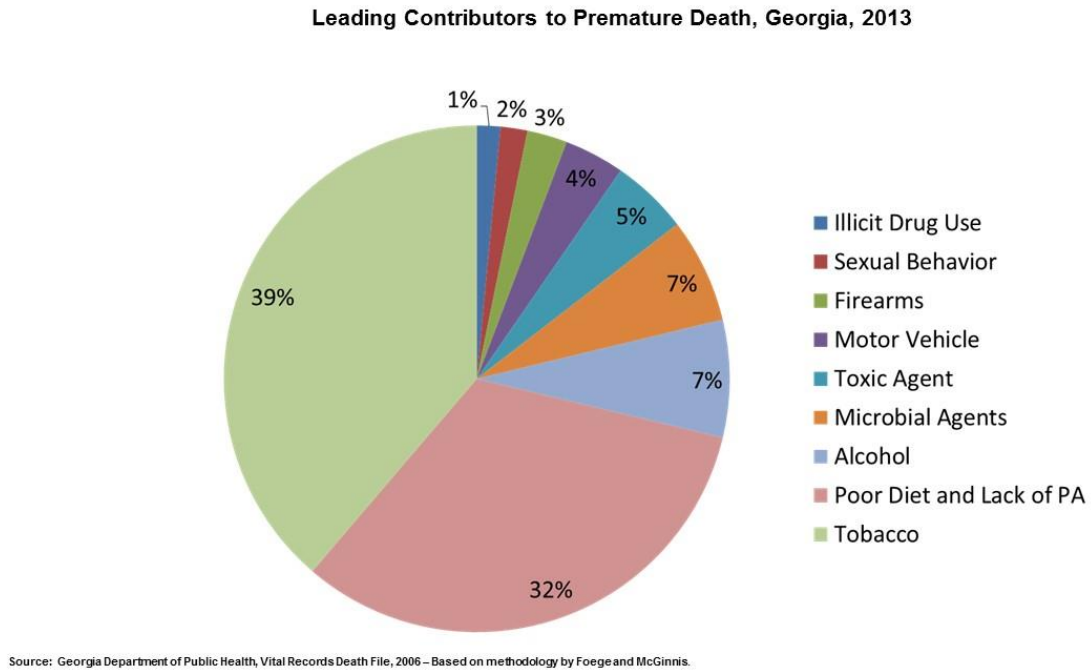


Figure 9. Leading contributors to premature death, Georgia, 2013

MATERNAL MORTALITY

The maternal mortality ratio increased from 11.5 (n=16) in 2004 to 43.6 (n=56) in 2013 (Figure 10). These deaths were identified by the cause of death on the death certificate, which can underestimate the true prevalence of maternal deaths.

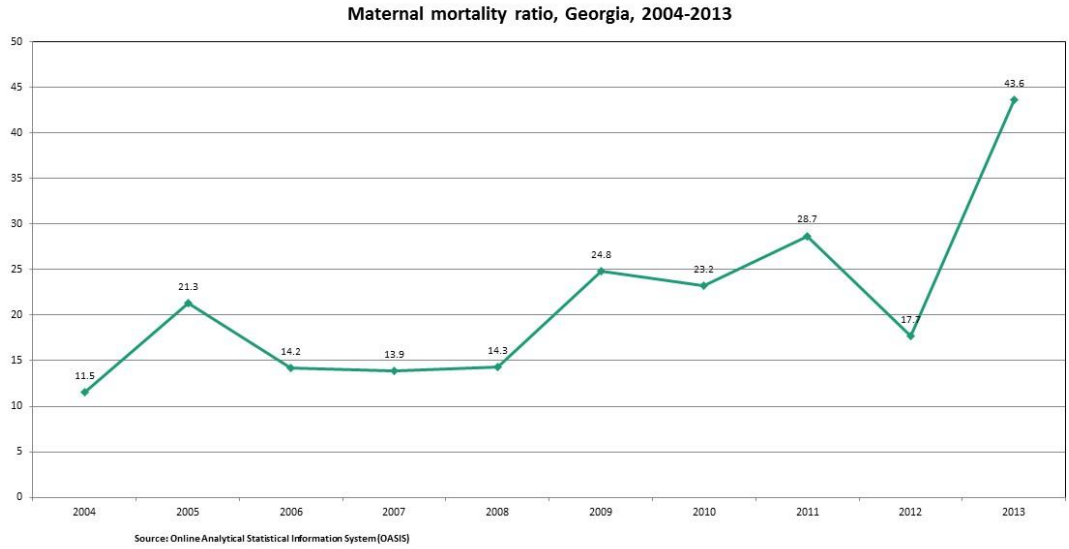


Figure 10. Maternal mortality ratio, Georgia, 2004-2013

Georgia recently implemented a Maternal Mortality Review Committee that thoroughly reviews vital records to identify maternal deaths. The committee identified 25 pregnancy-related and 60 pregnancy-associated deaths in 2012 (Figure 11). Of the deaths that were related to pregnancy, 17 of the women were Black, 6 were White and 1 was Hispanic. The deaths occurred at a higher percentage among women with a high school diploma or less.

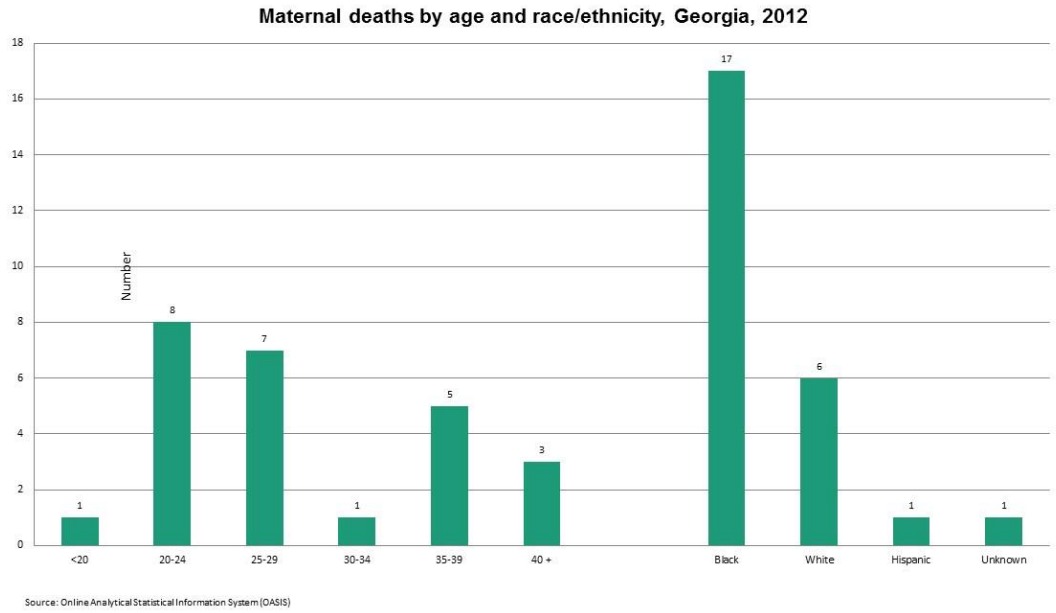


Figure 11. Maternal deaths by age and race/ethnicity, Georgia, 2012

Between 2009 and 2011, approximately half (48.5 percent) of the Georgia women entering pregnancy were overweight/obese (Figure 12). The percentage was highest among non-Hispanic Blacks (58.0 percent) and lowest among non-Hispanic Whites and others (42.0 percent and 37.7 percent). As maternal age increased, so did the percent of women entering into pregnancy obese. Only 46.1 percent of women with more than a high school education were obese entering into pregnancy, compared with 52.3 percent of women with less than a high school diploma.

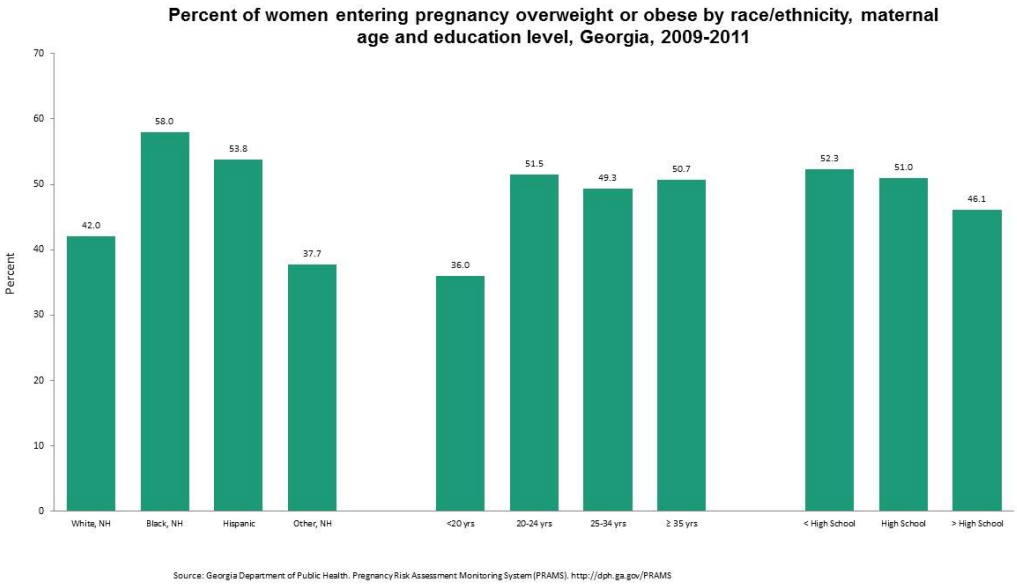


Figure 12. Percent of women entering pregnancy overweight or obese by race/ethnicity, maternal age and education, Georgia, 2009-2011

INFANT MORTALITY

Georgia's infant mortality rate increased from 6.3 to 7.2 between 2010 and 2013 (Figure 13). The national Healthy People 2020 objective for the infant mortality rate is 6.0.

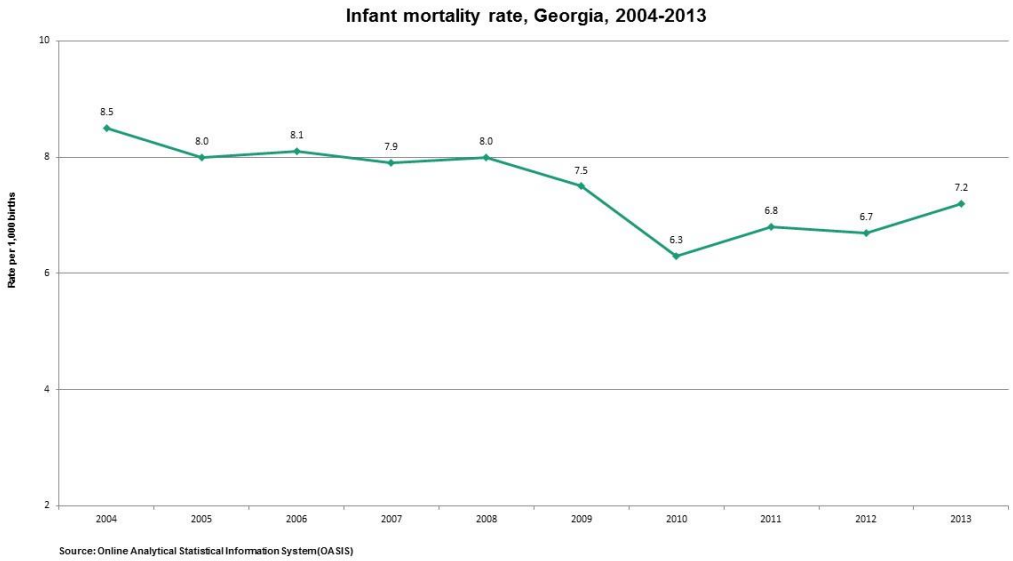


Figure 13. Infant mortality rate, Georgia, 2004-2013

Georgia's infant mortality rate is twice as high among non-Hispanic Blacks (11.2) compared to non-Hispanic Whites (5.5) (Figure 14). Both non-Hispanic Whites and Hispanics exceeded the Healthy People 2020 objective in 2013.

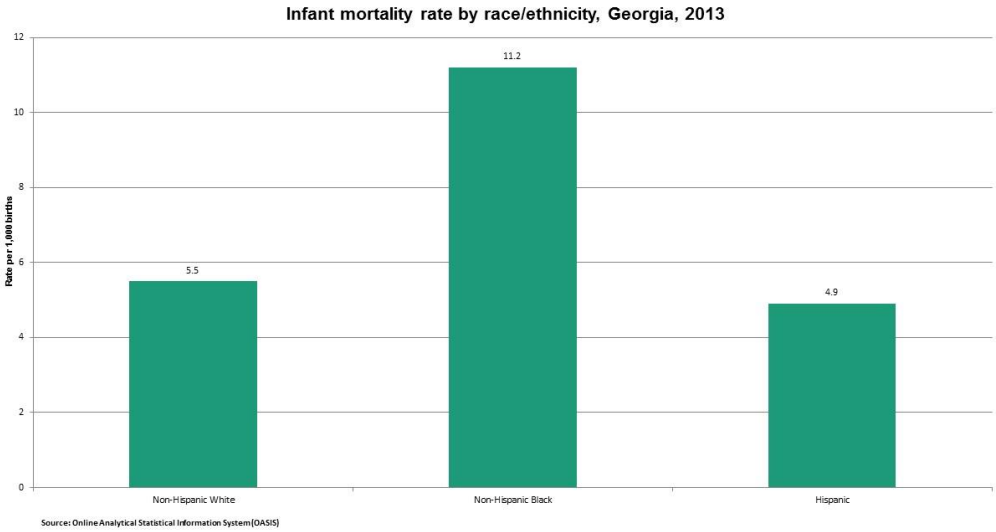


Figure 14. Infant mortality rate by race/ethnicity, Georgia, 2013

Approximately half (53.1 percent) of Georgia's infants were placed to sleep on their back in 2011 (Figure 15). The Healthy People 2020 objective for this measure is 75.9 percent. More mothers who were over the age of 24 and non-Hispanic White placed their infant on the back to sleep than mothers 24 years of age or less and mothers of other racial/ethnic groups. Over half of mothers less than 20 years old reported placing their infant on its side or stomach to sleep. Only 38.8 percent of White mothers reported placing their infant on their side or stomach while approximately 57.0 percent of Black and Hispanic mothers did the same.

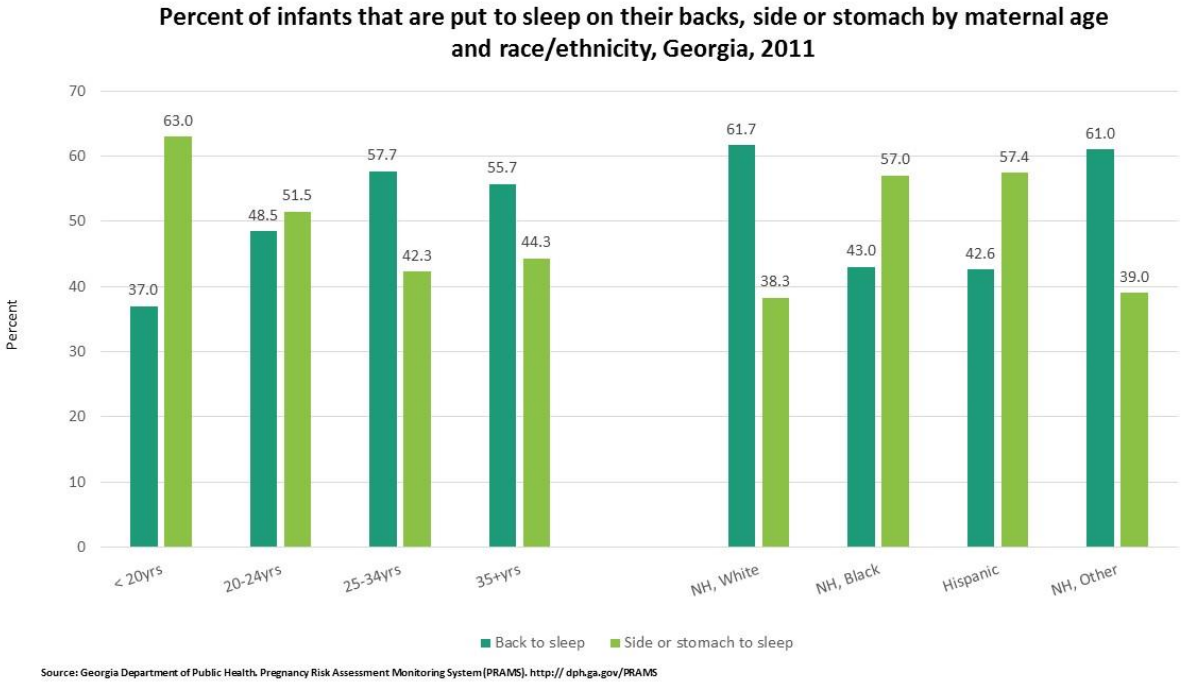


Figure 15. Percent of infants put to sleep on their backs, side, or stomach by maternal age and race/ethnicity, Georgia 2011

CHILDREN AND YOUTH WITH SPECIAL HEALTH CARE NEEDS

In 2009-2010, 17.4 percent of Georgia's children and youth with special health care needs (CYSHCN) were receiving care in a well-functioning system. A well-functioning system meets all federal requirements for family partnership, medical home, early screening, adequate insurance, easy access to services and preparation for adult transition.

The highest percentage of CYSHCN receiving these services were reported among children with household income levels greater than 400 percent of the federal poverty level (Figure 16. The percentage decreased as income level decreased. Only 12.2 percent of CYSHCN adolescents received care in a well-functioning system compared to 21.0 percent of CYSHCN ages 6 to 11. Racial disparities are present as well. White CYSHCN reported receiving care in a well-functioning system more often than Blacks. Due to changes in survey methodology, trend data are not available for this measure.

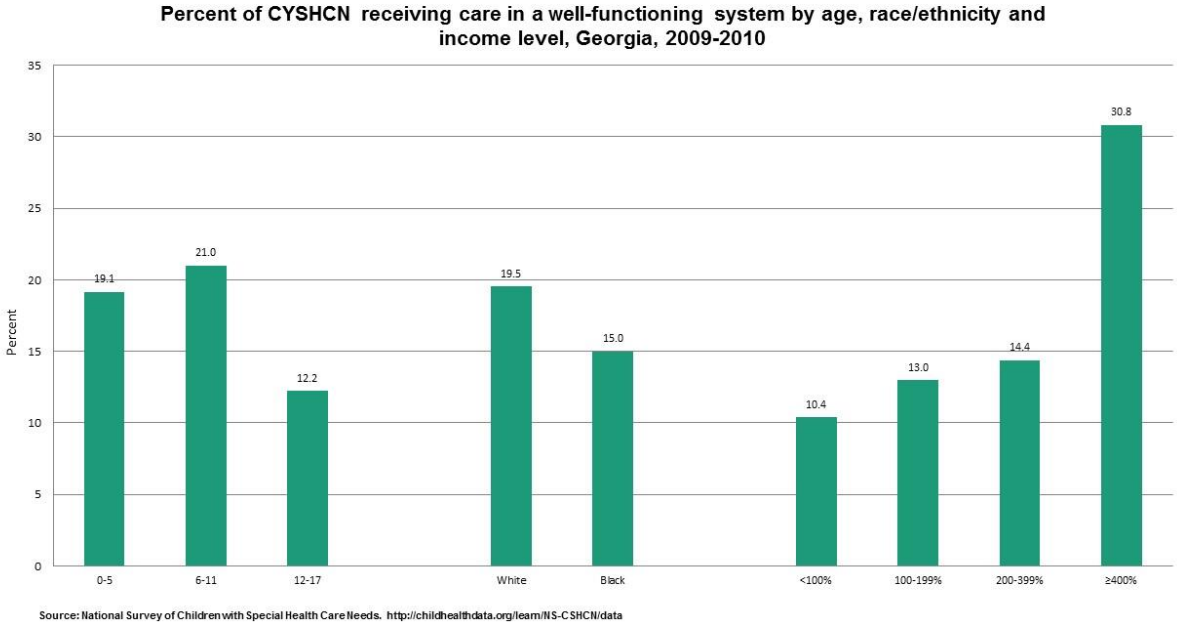


Figure 16. Percent of CYSHCN receiving care in a well-functioning system by age, race/ethnicity, and income level, Georgia 2009-2010

During 2009-2010, CYSCHN in Georgia received services necessary to make the transition to adulthood less frequently than in the United States as whole. While 25.3 percent of Hispanic CYSHCN across the nation reported receiving services, only 14.0 percent did in Georgia. Among non-Hispanic Whites, 43.6 percent indicated receiving transition services (Figure 17). Parents with a higher education reported that their children received transition services more often than parents with lower educational attainment.

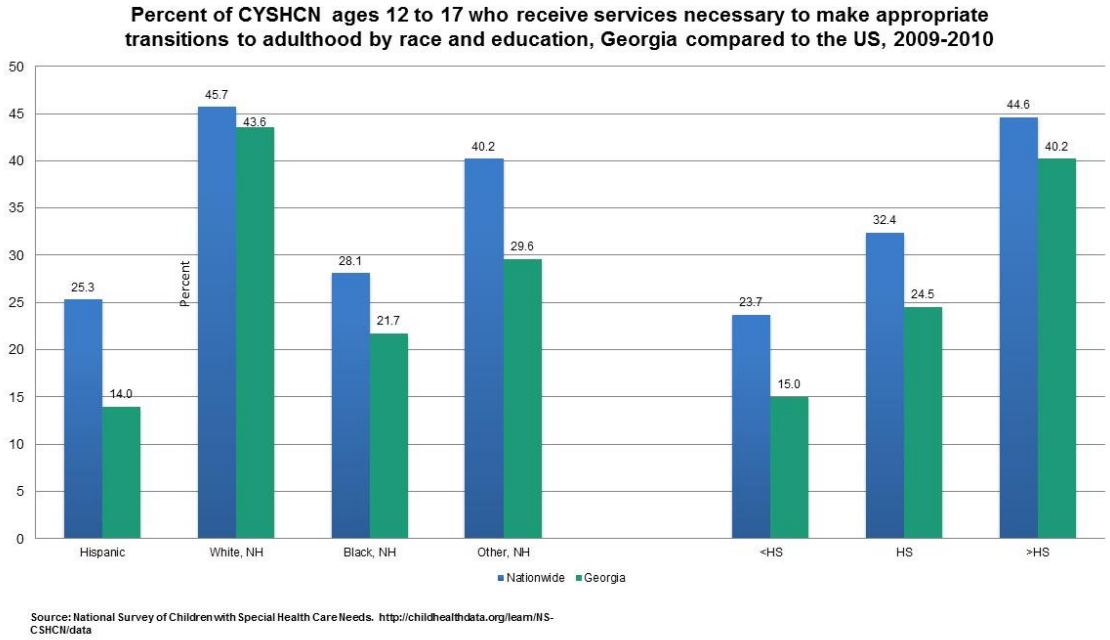


Figure 17. Percent of CYSHCN receiving services to make transition to adulthood by race, Georgia, US, 2009-2010

ORAL HEALTH

In 2011-2012, 18.6 percent of Georgia's children had decayed teeth or cavities. In the same year, the U.S. average was 19.4 percent (Figure 18. The highest percentage of tooth decay was reported among non-Hispanic Black children (24.7 percent) while the lowest was reported among non-Hispanic White children (13.2 percent). The percentage among Hispanic children (23.7 percent) was very similar to non-Hispanic Blacks. More than 20.0 percent of children over the age of six had oral health problems in 2011-2012, compared to only 9.8 percent of children ages 1 to 5.

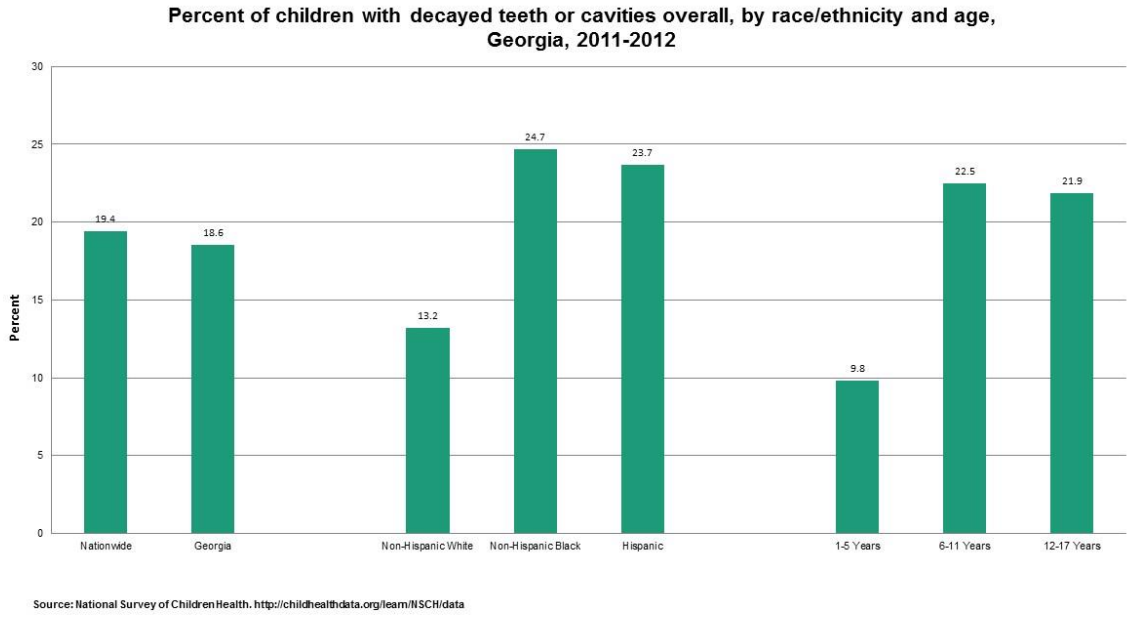


Figure 18. Percent of children with decayed teeth or cavities overall, by race/ethnicity and age, Georgia, 2011-2012

The percentage of children receiving a preventive dental visit in the past year decreased from 80.3 percent in 2007 to 75.9 percent in 2011-2012 (Figure 19. Georgia exceeded the national average of 78.4 percent in 2007, but was lower than the average of 75.9 percent in 2011-2012. There were disparities by race/ethnicity. Parents of Hispanic children in Georgia reported the lowest percentage of preventive dental visits (69.6 percent) compared to both the national estimate for Hispanic children (73.9 percent) and peers of other races in Georgia.

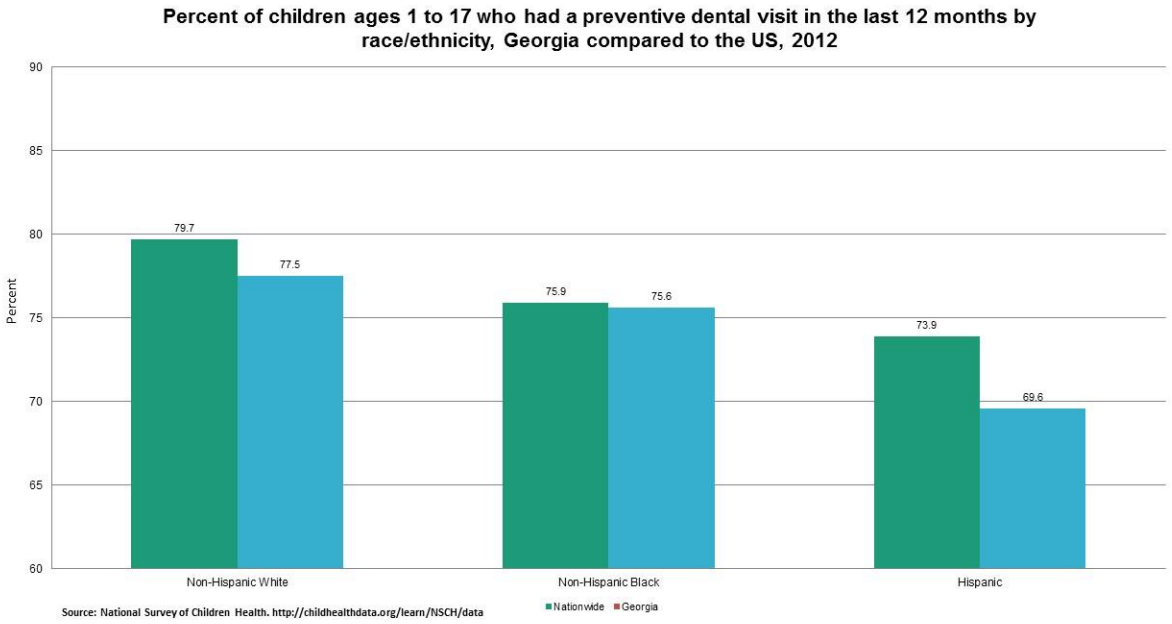


Figure 19. Percent of children ages 1-17 who had a preventive dental visit in the last 12 months by race/ethnicity, Georgia compared to the U.S., 2012

CANCER INCIDENCE, ALL SITES

From 2000-2011, overall cancer incidence rates remained slightly higher among males in Georgia compared to US males but they have been following a similar downward trend (Figure 20). The rates for US males decreased by 0.6 percent per year from 2000-2008 followed by a more rapid decline of 3.0 percent per year from 2008-2011. Among Georgia males, rates were fairly steady during 2000-2008 and declined by about 3.0 percent per year from 2008-2011.

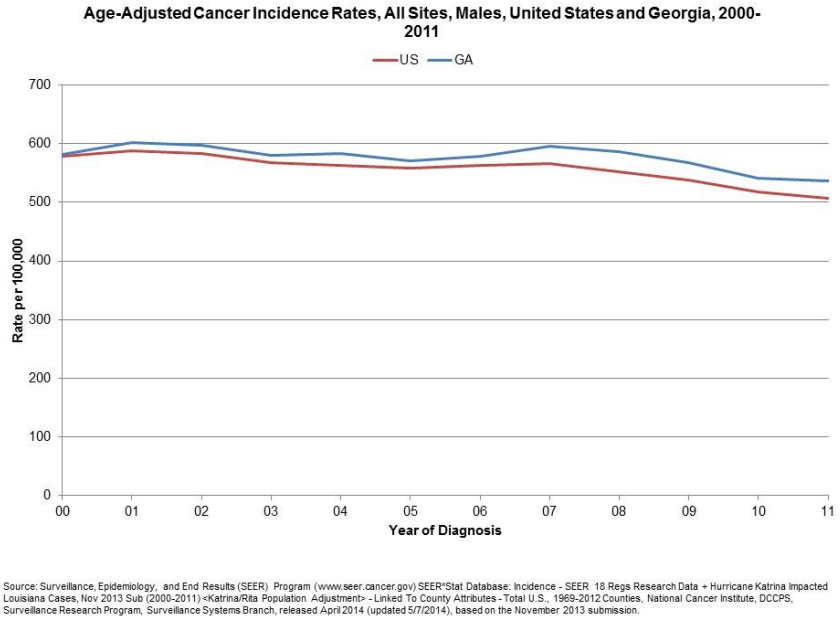


Figure 20. . Age-adjusted cancer incidence rates, all sites, males, US and Georgia, 2000-2011

From 2000-2011, overall cancer incidence rates remained slightly lower among females in Georgia as compared to US females. The rates for US females decreased slightly by about 0.2 percent per year from 2000-2011. Among Georgia females, rates remained steady during 2000-2011 (Figure 21).

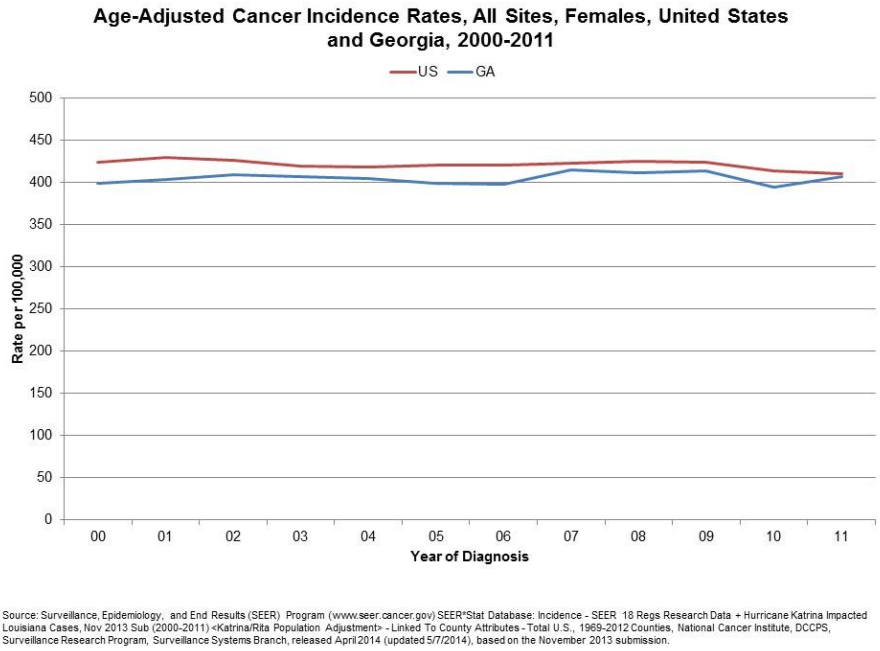


Figure 21. Age-adjusted cancer incidence rates, all sites, females, US and Georgia, 2000-2011

More than 42,900 cancers are diagnosed each year in Georgia with an overall five-year age-adjusted cancer incidence rate of 472.1 per 100,000 persons. Males were more likely to be diagnosed than females (563.8/100,000 vs 407.5/100,000), non-Hispanic (NH) Black males (626.4/100,000) had the highest age-adjusted cancer incidence rate compared to NH white males (560.4/100,000), NH white females (425.6/100,000) and NH black females (389.2/100,000) (Figure 22).

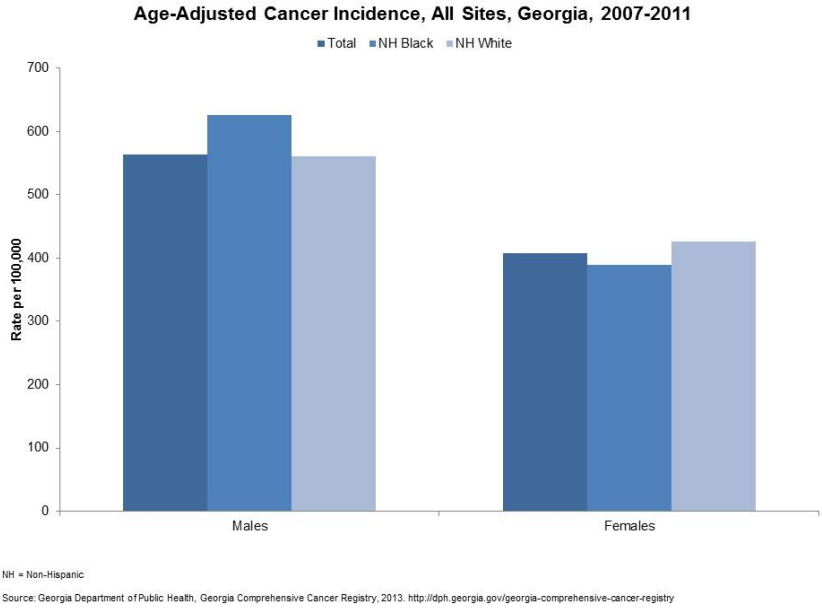


Figure 22. Age-adjusted cancer incidence, all sites, Georgia, 2007-2011

LUNG & BRONCHUS CANCER INCIDENCE, MALES

From 2000-2011, lung and bronchus cancer incidence rates remained higher among males in Georgia as compared to US males but they have been following a similar downward trend (Figure 23). The rates for US males decreased by about 1.4 percent per year from 2000-2008 followed by a more rapid decline of 4.0 percent per year from 2008-2011. Among Georgia males, rates declined by about 2.6 percent per year from 2000-2011.

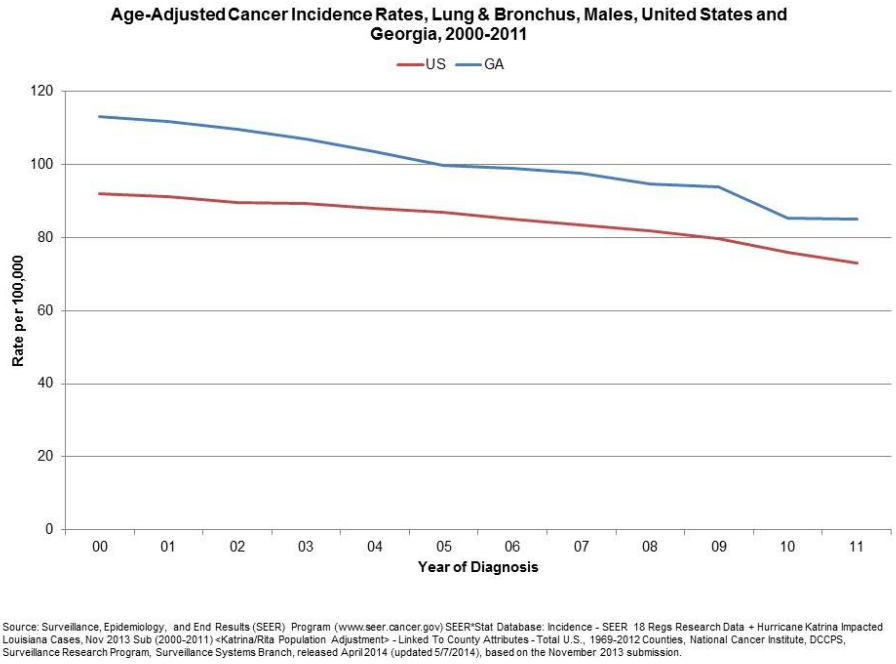


Figure 23. Age-adjusted cancer incidence rates, lung, males, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection of a cancer, the better a person's chance of survival. In Georgia from 2005-2011, 11 percent of invasive lung and bronchus cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 16 percent of cancers among NH white males. Lung and bronchus cancer was diagnosed at a late stage (regional or distant) for 85 percent of NH black males and 79 percent of NH white males. These numbers were very similar to those for US males (Figure 24).

In Georgia from 2005-2011, 38 percent of NH black males and 45 percent of NH white males diagnosed with localized lung and bronchus cancer survived at least five years. Survival dropped to just 5 percent for both NH black and NH white males when discovered at a distant stage (Figure 25). These rates are similar to those for US males.

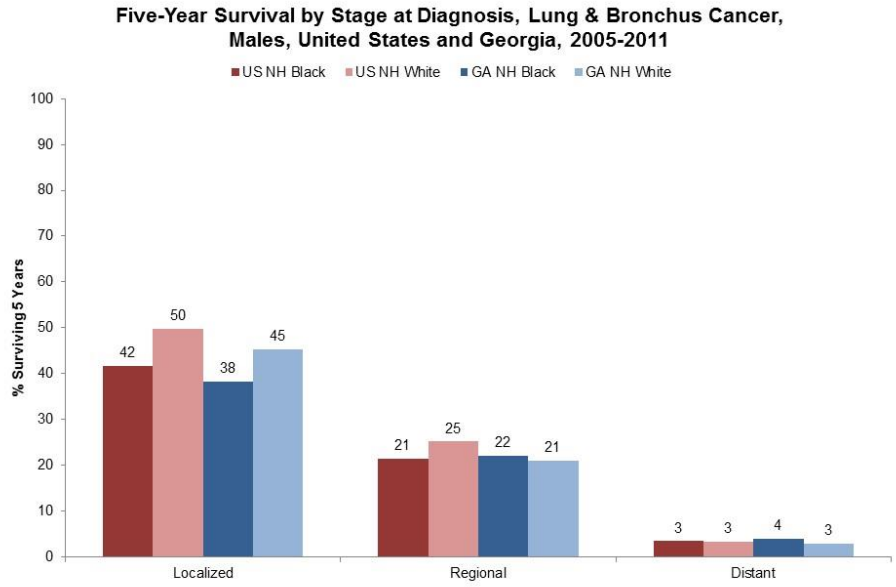
Invasive Lung and Bronchus Cancer Incidence, Stage at Diagnosis, Males, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	12%	15%	11%	16%
Regional	22%	23%	22%	24%
Distant	62%	58%	63%	55%
Unknown/Unstaged	4%	5%	4%	4%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 24. Invasive lung and bronchus cancer incidence, males, 2005-2011



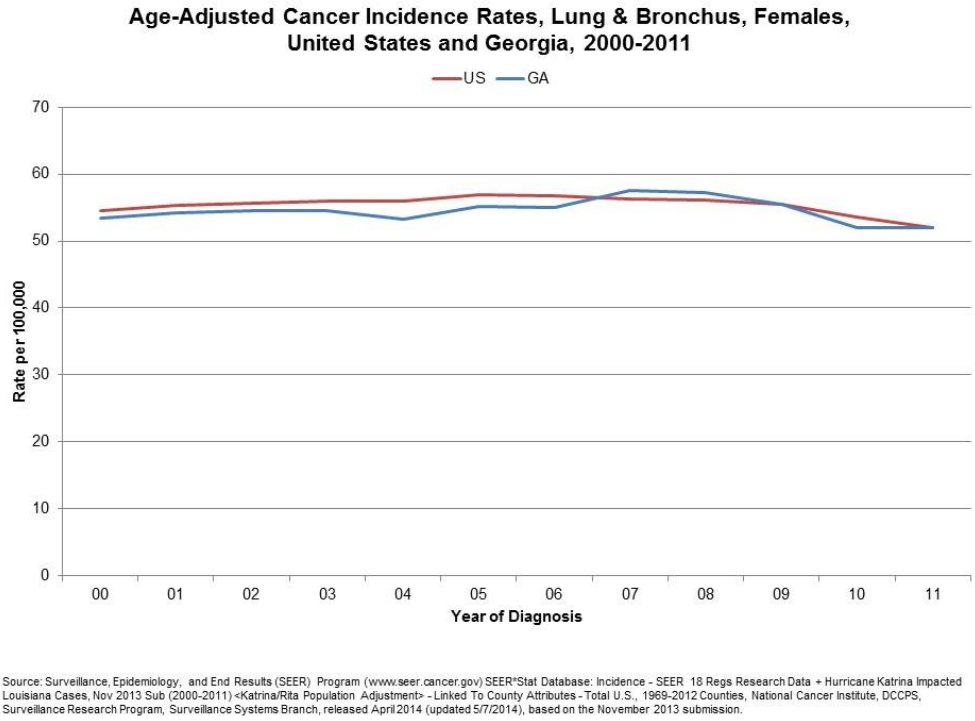
NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 25. Five-year survival stage at diagnosis, lung and bronchus cancer, males, Georgia, 2005-2011

LUNG & BRONCHUS CANCER INCIDENCE, FEMALES

From 2000-2011, lung and bronchus cancer incidence rates among females in Georgia were similar to those for US females and have been following a similar trend. The rates for US females increased by 0.4 percent per year from 2000-2008 followed by a decline of 2.9 percent per year from 2008-2011 (Figure 26). Among Georgia females, rates increased by 0.8 percent per year from 2000-2008 and decreased by 3.3 percent per year from 2008-2011.



Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2013 Sub (2000-2011) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2012 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2014 (updated 5/7/2014), based on the November 2013 submission.

Figure 26. Age-adjusted cancer incidence rates, lung and bronchus, females, US and Georgia, 2000-2011

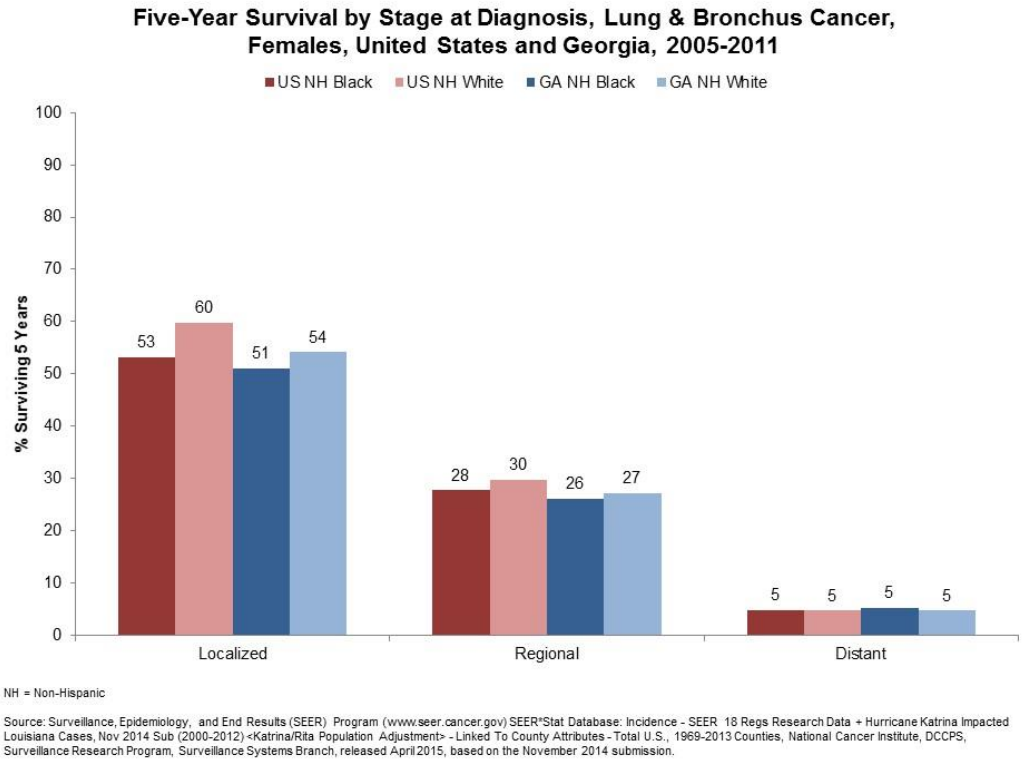


Figure 27. Five-year survival by stage at diagnosis, lung and bronchus cancer, females, US and Georgia, 2005-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 15 percent of invasive lung and bronchus cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 20 percent of cancers among NH white females (Figure 27). Lung and bronchus cancer was diagnosed at a late stage (regional or distant) for 82 percent of NH black females and 76 percent of NH white females. These numbers were very similar to those for US females.

Invasive Lung and Bronchus Cancer Incidence, Stage at Diagnosis, Females, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	15%	18%	15%	20%
Regional	23%	22%	23%	25%
Distant	59%	54%	59%	51%
Unknown/Unstaged	4%	6%	3%	5%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 28. Invasive lung and bronchus cancer incidence, stage at diagnosis, females, US and Georgia, 2005-2011

In Georgia from 2005-2011, 51 percent of NH black females and 54 percent of NH white females diagnosed with localized lung and bronchus cancer survived at least five years (Figure 28). Survival dropped to just 4 percent and 3 percent, respectively, for both NH black and NH white females when discovered at a distant stage. These rates are similar to those for US females.

COLORECTAL CANCER INCIDENCE, MALES

From 2000-2011, colorectal cancer incidence rates among males in Georgia were similar to those for US males and have been following a similar trend (Figure 29). The rates for US males decreased by 3.0 percent per year from 2000-2008 followed by a more rapid decline of 4.7 percent per year from 2008-2011. Among Georgia males, rates decreased by 0.5 percent per year from 2000-2003 and decreased by 3.4 percent per year from 2003-2011.

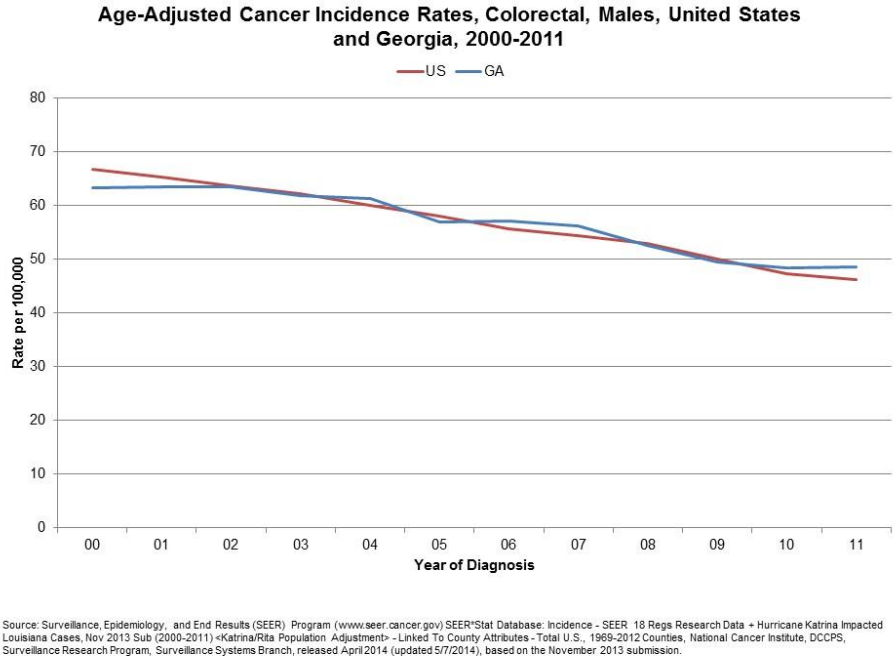


Figure 29. Age-adjusted cancer incidence rates, colorectal, males, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 38 percent of invasive colorectal cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 40 percent of cancers among NH white males (Figure 30). Colorectal cancer was diagnosed at a late stage (regional or distant) for 57 percent of NH black males and 57 percent of NH white males. These numbers were very similar to those for US males.

Invasive Colon and Rectum Cancer Incidence, Stage at Diagnosis, Males, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	38%	41%	38%	40%
Regional	33%	36%	32%	37%
Distant	25%	20%	25%	20%
Unknown/Unstaged	5%	4%	4%	3%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 30. Invasive colon and rectum cancer incidence, stage at diagnosis, males, US and Georgia, 2005-2011

In Georgia from 2005-2011, 87 percent of NH black males and 86 percent of NH white males diagnosed with localized colorectal cancer survived at least five years. Survival dropped dramatically to 8 percent and 13 percent respectively for NH black and NH white males when discovered at a distant stage (Figure 31). These rates are similar to those for US males.

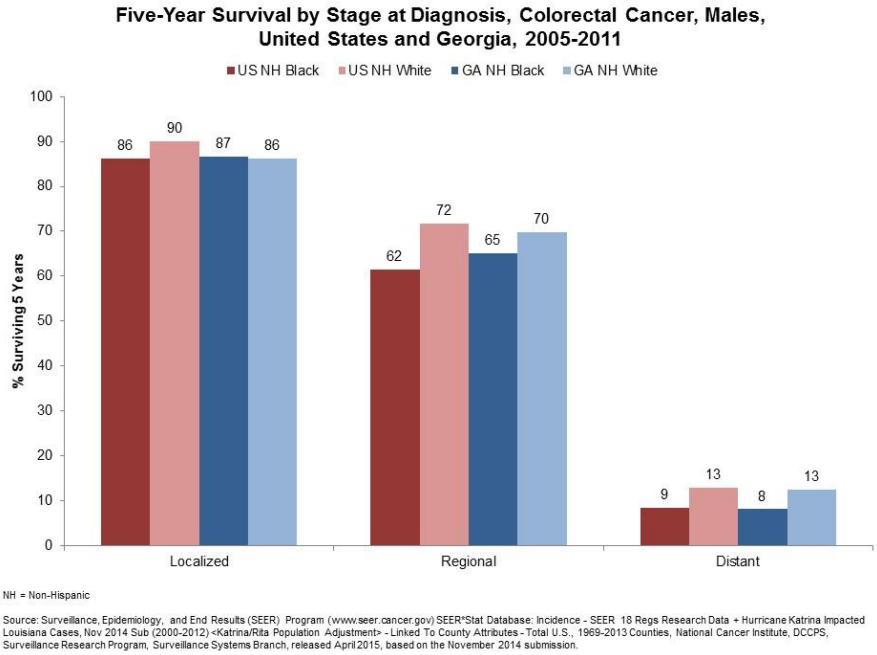


Figure 31. Five-year survival by stage at diagnosis, colorectal cancer, males, US and Georgia, 2005-2011

COLORECTAL CANCER INCIDENCE, FEMALES

From 2000-2011, colorectal cancer incidence rates among females in Georgia were similar to those for US females and have been following a similar trend. The rates for US females decreased by 2.3 percent per year from 2000-2007 followed by a more rapid decline of 4.1 percent per year from 2007-2011 (Figure 32). Among Georgia females, rates decreased by about 2.2 percent per year from 2000-2011.

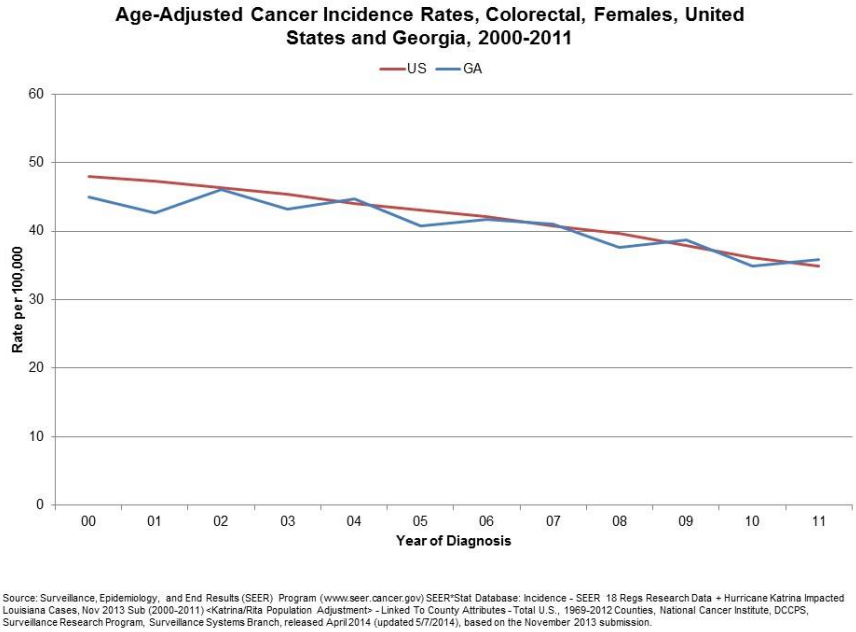


Figure 32. Age-adjusted cancer incidence rates, colorectal, females, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 39 percent of invasive colorectal cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 40 percent of cancers among NH white females. Colorectal cancer was diagnosed at a late stage (regional or distant) for 56 percent of NH black females and 56 percent of NH white females (Figure 33). These numbers were very similar to those for US females.

Invasive Colon and Rectum Cancer Incidence, Stage at Diagnosis, Females, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	39%	39%	39%	40%
Regional	32%	36%	32%	37%
Distant	24%	20%	24%	19%
Unknown/Unstaged	5%	5%	5%	3%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 33. Invasive colon and rectum cancer incidence, stage at diagnosis, females, US and Georgia, 2005-2011

In Georgia from 2005-2011, 88 percent of NH black females and 90 percent of NH white females diagnosed with localized colorectal cancer survived at least five years. Survival dropped dramatically to 10 percent and 15 percent, respectively, for NH black and NH white females when discovered at a distant stage (Figure 34). These rates were similar to those for US females.

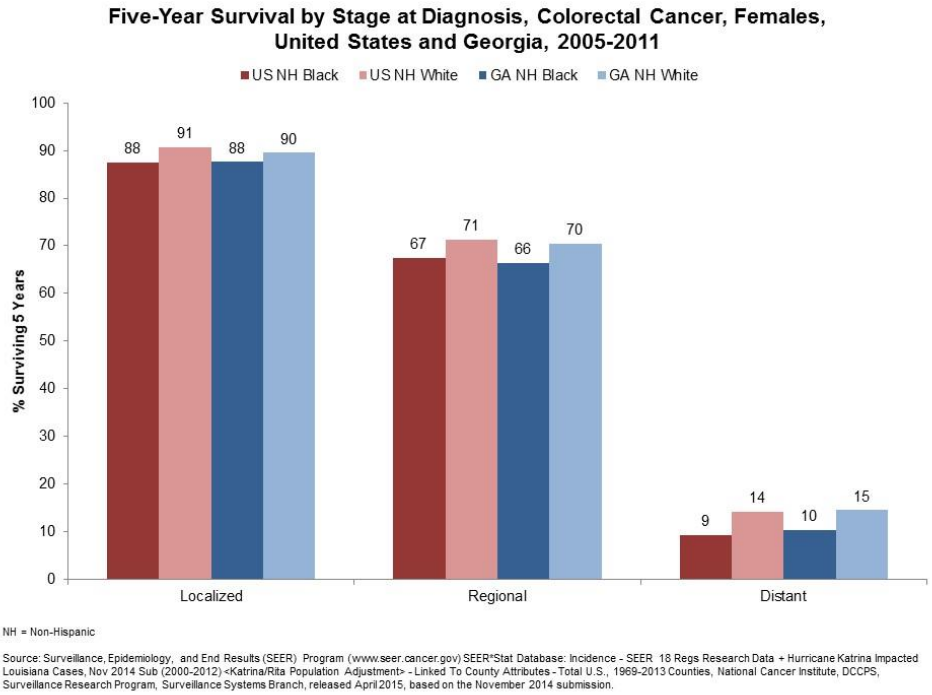


Figure 34. Five-year survival by stage at diagnosis, colorectal cancer, females, US and Georgia, 2005-2011

COLORECTAL CANCER SCREENING

Colorectal cancer guidelines state that average risk adults age 50 years and older should have a blood stool test within the past year, and/or a sigmoidoscopy every five years, and/or a colonoscopy every 10 years. The overall colorectal cancer screening rate among Georgia adults aged 50 and older was 63 percent, substantially lower than the national goal of 80 percent by 2018. Screening rates were similar for both males and females.

Health insurance status is an important factor in determining whether a person receives proper and timely screenings. Among Georgia adults aged 50-64 years, persons with health insurance were significantly more likely to have met the colorectal cancer screening recommendation than persons without health insurance (66 percent vs. 30 percent) (Figure 35). Adults over age 65 are likely to be insured by Medicare; hence there were not enough respondents in the uninsured category to display a comparison.

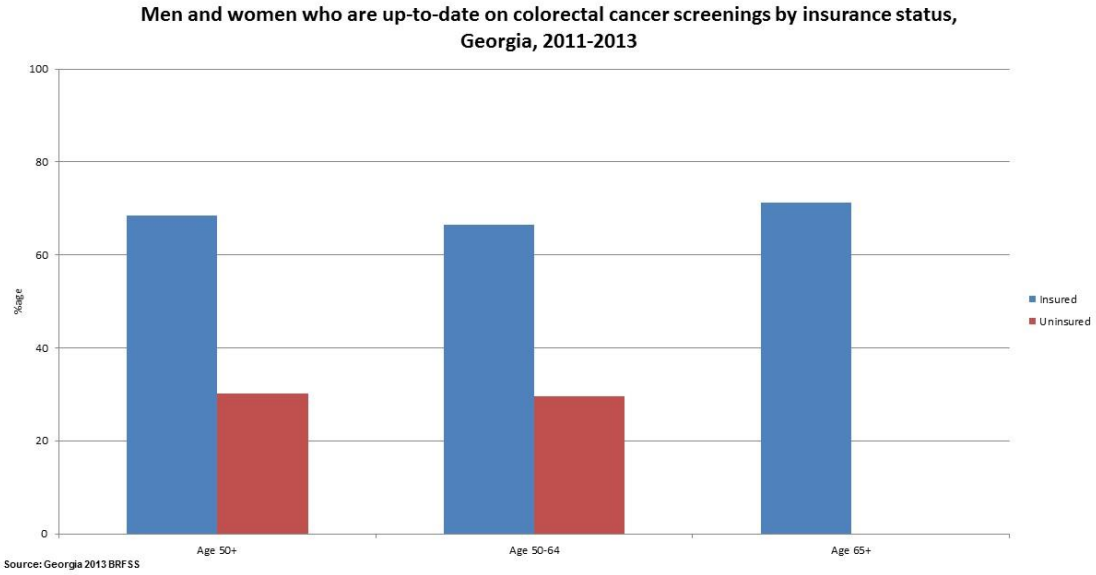


Figure 35. Men and women who are up-to-date on colorectal cancer screenings by insurance status, Georgia, 2011-2013

Colorectal cancer screening rates varied by income level. There was a trend that higher income levels translate to higher likelihood of meeting screening recommendations. Adults aged 50 years and older making less than $25,000 annually were least likely to meet the recommendation of the three income groups, regardless of age (overall: 52 percent vs. 66 and 74 percent, respectively) (Figure 36).

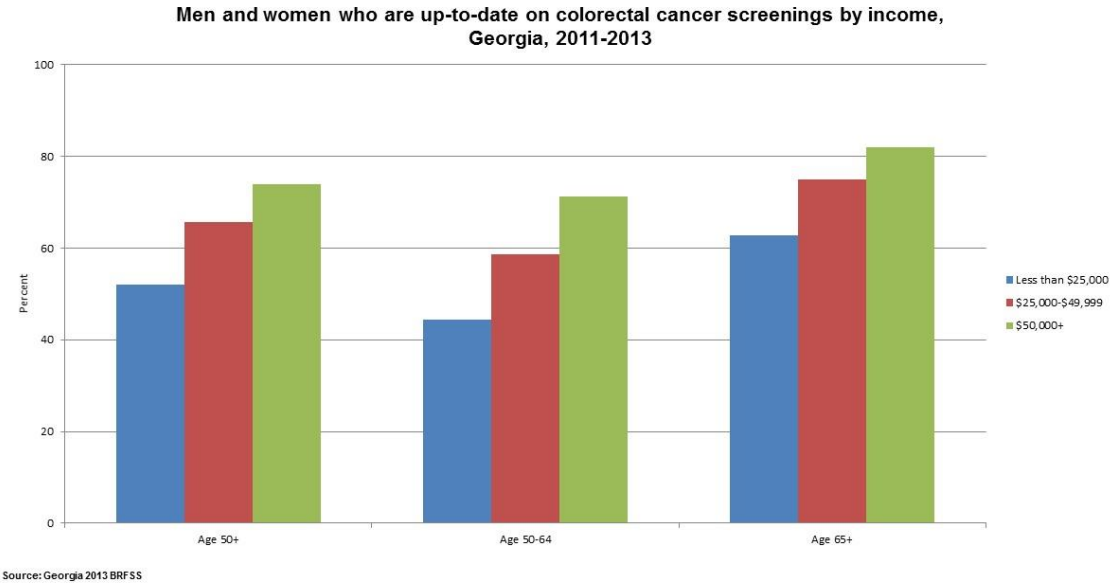


Figure 36. Men and women who are up-to-date on colorectal cancer screenings by income, Georgia, 2011-2013

MELANOMA INCIDENCE, MALES

From 2000-2011, melanoma incidence rates among males in Georgia were higher than those for US males and both experienced an upward trend during the past decade (Figure 37). The rates for US males increased by 2.5 percent per year from 2000-2008 followed by a slight decline of 0.3 percent per year from 2008-2011. Among Georgia males, rates increased by 11.5 percent per year from 2000-2002, followed by a more modest increase of 1.5 percent per year during 2002-2011.

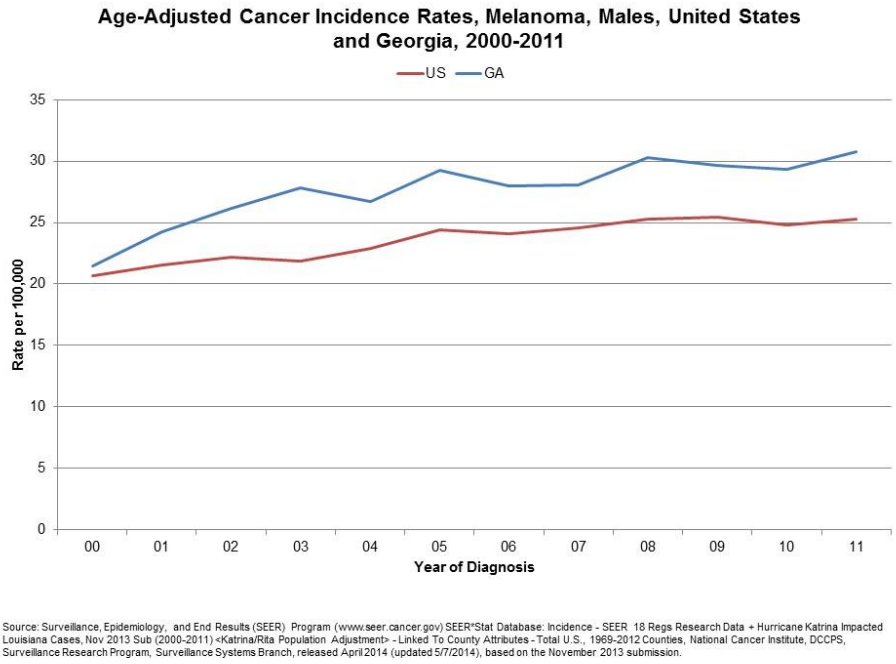


Figure 37. Age-adjusted cancer incidence rates, melanoma, males, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 41 percent of invasive melanomas diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 84 percent of cancers among NH white males (Figure 38. Melanoma was diagnosed at a late stage (regional or distant) for 52 percent of NH black males and 13 percent of NH white males. These numbers were similar to those for US males.

Invasive Melanoma Incidence, Stage at Diagnosis, Males, United States and Georgia, 2005-2011

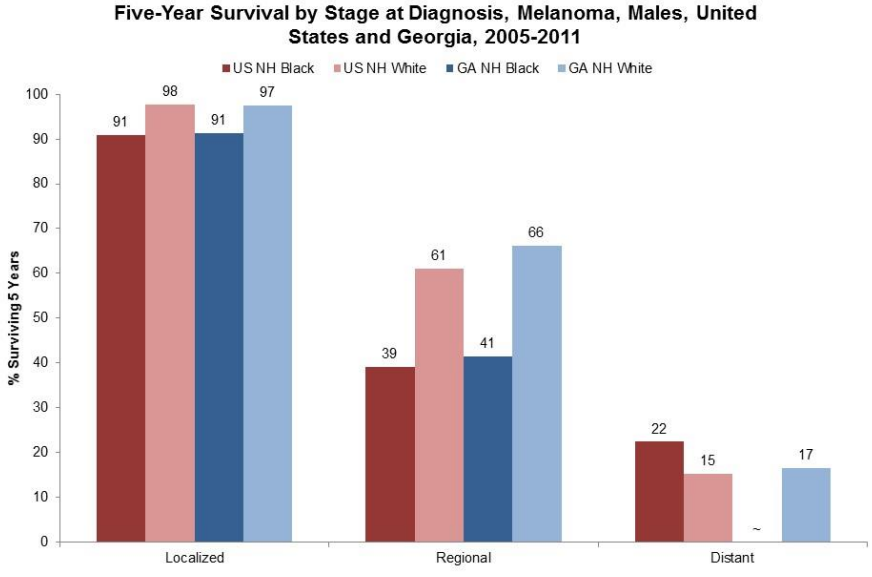
	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	47%	82%	41%	84%
Regional	29%	10%	34%	9%
Distant	18%	5%	18%	4%
Unknown/Unstaged	6%	3%	7%	3%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 38. Invasive melanoma incidence, stage at diagnosis, males, US and Georgia, 2005-2011

In Georgia from 2005-2011, 91 percent of NH black males and 97 percent of NH white males diagnosed with localized melanoma survived at least five years (Figure 39). Survival dropped dramatically when discovered at a distant stage. These rates were similar to those for US males.



NH = Non-Hispanic
~ Sparse data

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 39. Five-year survival by stage at diagnosis, melanoma, males, US and Georgia, 2005-2011

MELANOMA INCIDENCE, FEMALES

From 2000-2011, melanoma incidence rates among females in Georgia were generally higher than those for U.S (Figure 40). Females and both experienced an upward trend during the past decade. The rates for US females increased by 3.0 percent per year from 2000-2006 followed by relatively steady rates from 2006-2011. Among Georgia females, rates increased by about 1.8 percent per year from 2000-2011.

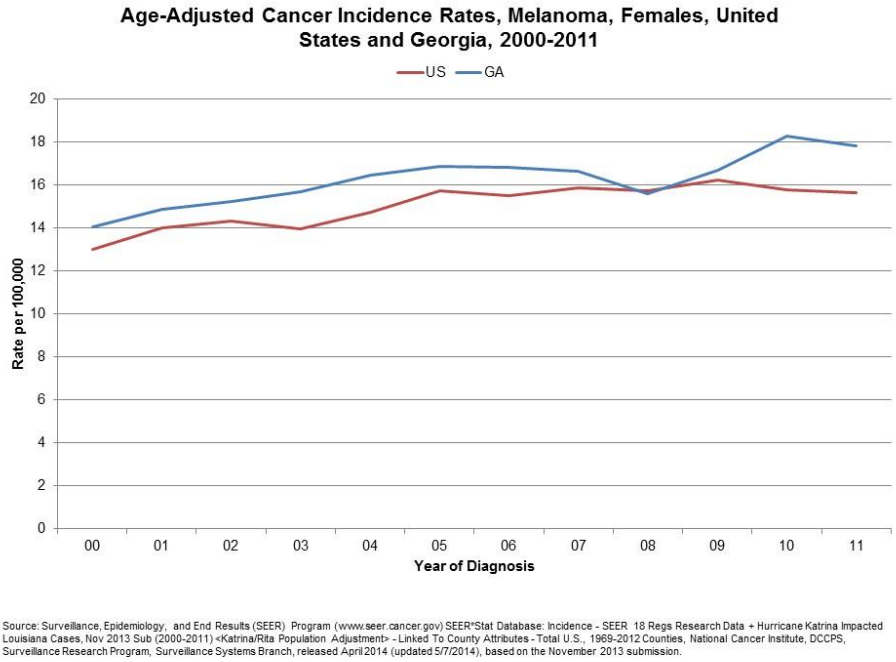


Figure 40. Age-adjusted cancer incidence rates, melanoma, females, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 65 percent of invasive melanomas diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 87 percent of cancers among NH white females (Figure 41). Melanoma was diagnosed at a late stage (regional or distant) for 31 percent of NH black females and 8 percent of NH white females. These numbers were similar to those for US females.

Invasive Melanoma Incidence, Stage at Diagnosis, Females, United States and Georgia, 2005-2011

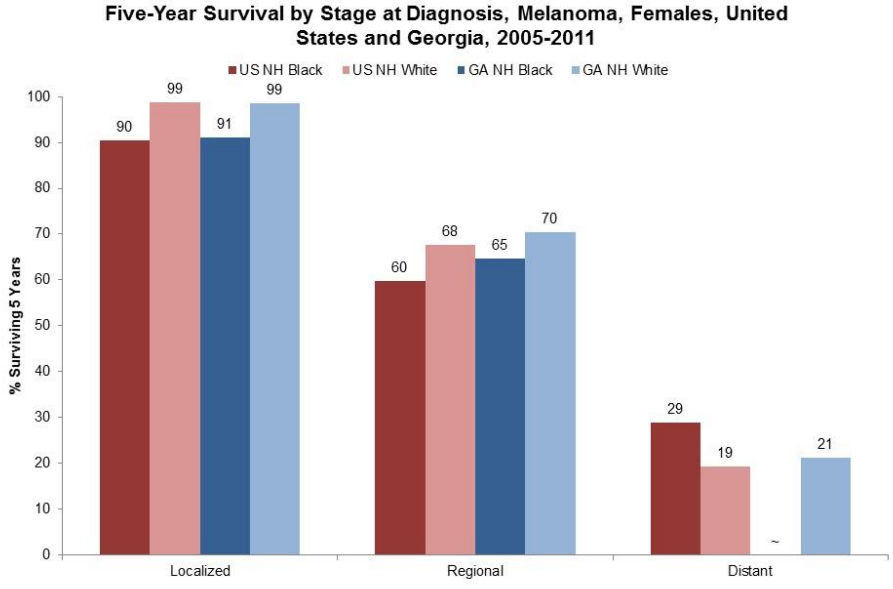
	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	61%	87%	65%	87%
Regional	23%	7%	18%	6%
Distant	11%	3%	13%	2%
Unknown/Unstaged	5%	3%	4%	4%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 41. Invasive melanoma incidence, stage at diagnosis, females, US and Georgia, 2005-2011

In Georgia from 2005-2011, 91 percent of NH black females and 99 percent of NH white females diagnosed with localized melanoma survived at least five years (Figure 42). Survival dropped dramatically when discovered at a distant stage. These rates were similar to those for US females.



NH = Non-Hispanic
~ Sparse data

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 42. Five-year survival by stage at diagnosis, melanoma, females, US and Georgia, 2005-2011

PROSTATE CANCER INCIDENCE, MALES

From 2000-2011, prostate cancer incidence rates among males in Georgia were generally higher than those for US males but both have been following a downward trend (Figure 43). The rates for US males decreased by 2.4 percent per year from 2000-2011. Among Georgia males, rates decreased by 1.2 percent per year from 2000-2011.

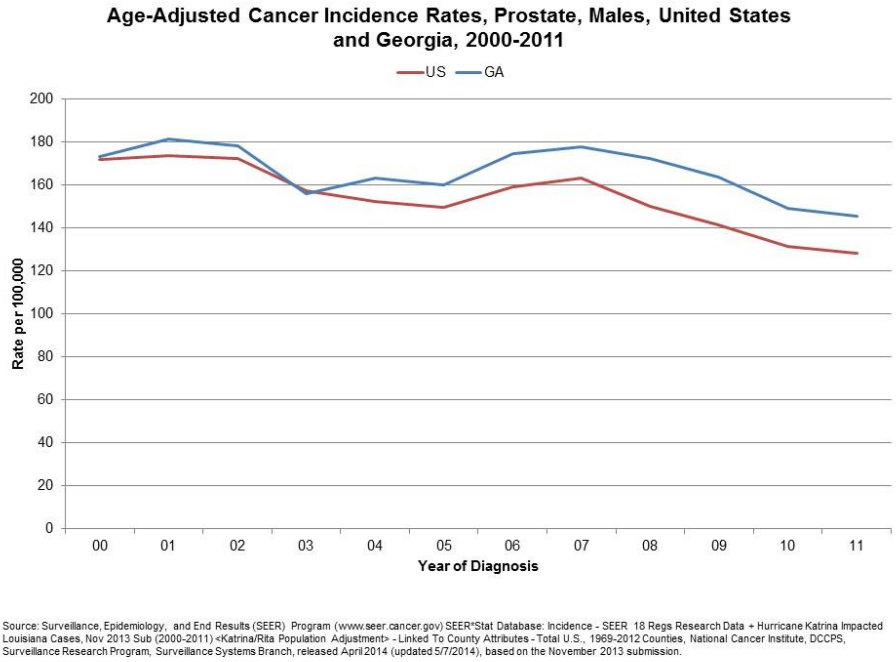


Figure 43. Age-adjusted cancer incidence-rates, prostate, males, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 87 percent of invasive prostate cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 86 percent of cancers among NH white males (Figure 44). Prostate cancer was diagnosed at a late stage (regional or distant) for 11 percent of both NH black and NH white males. These numbers were slightly better than those for US males.

Invasive Prostate Cancer Incidence, Stage at Diagnosis, Males, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	82%	81%	87%	86%
Regional	10%	12%	6%	8%
Distant	5%	4%	5%	3%
Unknown/Unstaged	3%	3%	2%	2%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 44. Invasive prostate cancer incidence, stage at diagnosis, males, US and Georgia, 2005-2011

In Georgia from 2005-2011, 100 percent of both NH black and NH white males diagnosed with localized prostate cancer survived at least five years (Figure 45). Survival dropped dramatically to 31 percent and 26 percent respectively for NH black and NH white males when discovered at a distant stage. These rates were similar to those for US males

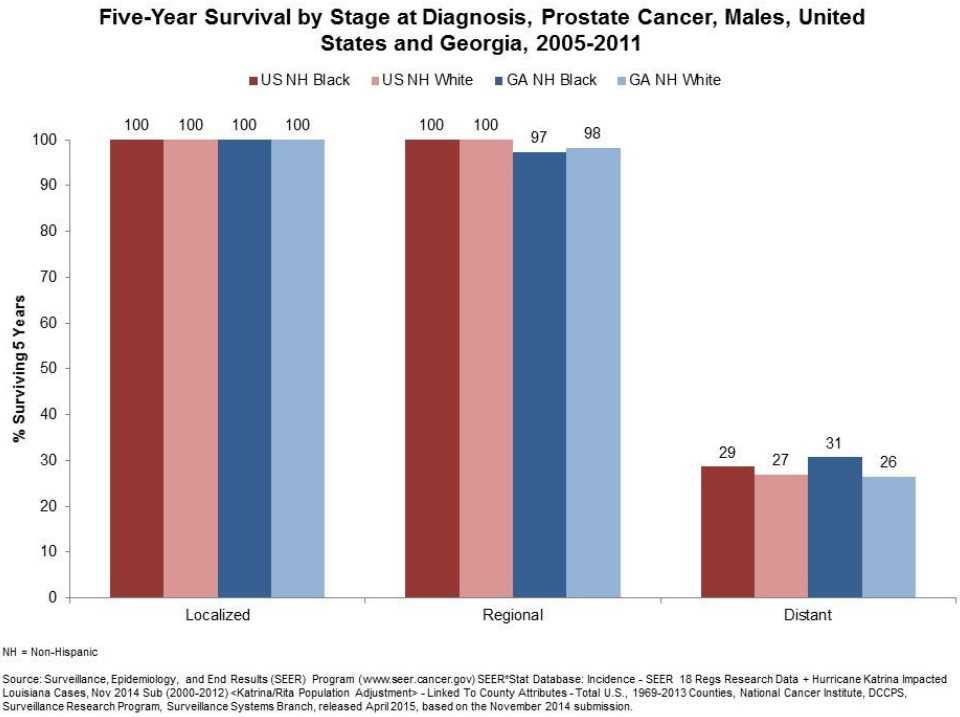


Figure 45. Five-year survival by stage at diagnosis, prostate cancer, males, US and Georgia, 2005-2011

BREAST CANCER INCIDENCE, FEMALES

From 2000-2011, breast cancer incidence rates among females in Georgia were similar to those for US females and both have remained somewhat steady (Figure 46). The rates for US females decreased by 2.5 percent per year from 2000-2004 and remained steady from 2004-2011. Among Georgia females, rates remained steady from 2000-2011.

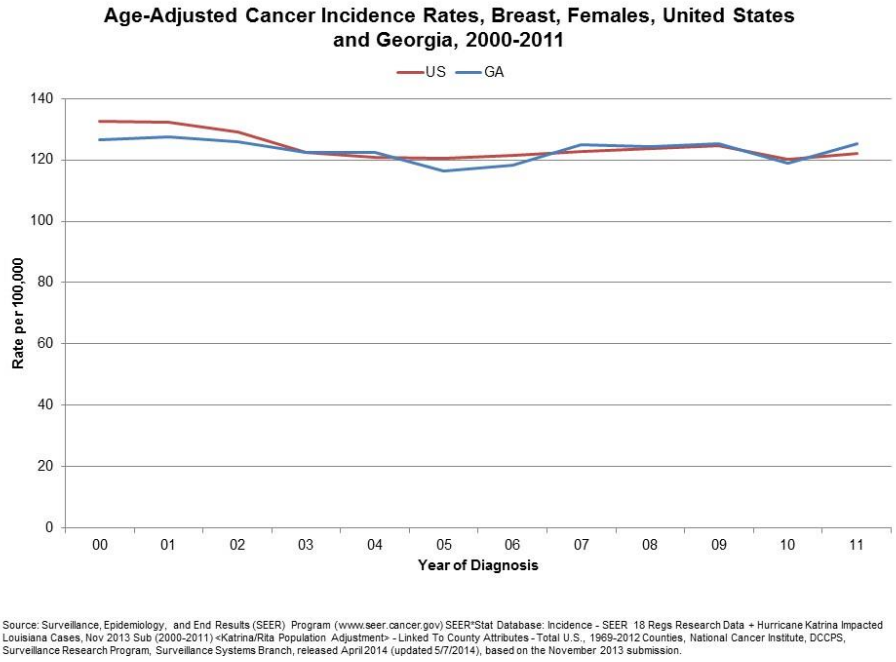


Figure 46. Age-adjusted cancer incidence rates, breast, females, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 52 percent of invasive breast cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 63 percent of cancers among NH white females (Figure 47). Breast cancer was diagnosed at a late stage (regional or distant) for 46 percent of NH black females and 35 percent of NH white females. These numbers were very similar to those for US females.

Invasive Breast Cancer Incidence, Stage at Diagnosis, Females, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	53%	63%	52%	63%
Regional	37%	30%	37%	30%
Distant	9%	5%	9%	5%
Unknown/Unstaged	2%	2%	2%	2%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 47. Invasive breast cancer incidence, stage at diagnosis, females, US and Georgia, 2005-2011

In Georgia from 2005-2011, 94 percent of NH black females and 97 percent of NH white females diagnosed with localized breast cancer survived at least five years (Figure 48). Survival drops dramatically to just 19 percent and 24 percent respectively for NH black and NH white females when discovered at a distant stage. These rates were similar to those for US females.

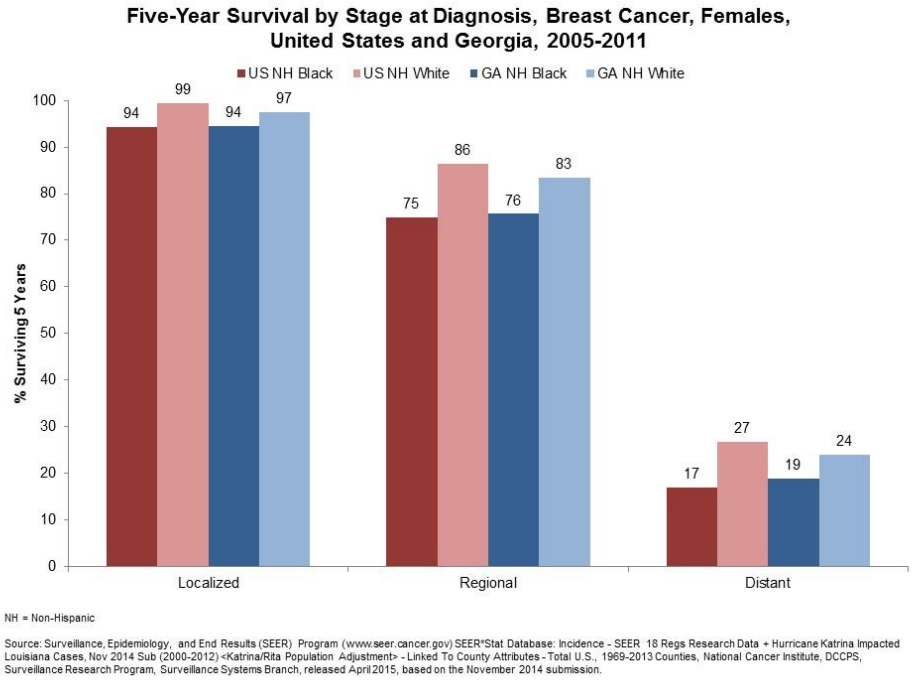


Figure 48. Five-year survival by stage at diagnosis, breast cancer, females, US and Georgia, 2005-2011

Overall 75.3 percent of Georgia women 40 years and older reported having a mammogram within the past two years (Figure 49). Screening rates were higher among women over age 65 than women younger than 65, and non-Hispanic black women were more likely than non-Hispanic white women to report being screened, regardless of age group.

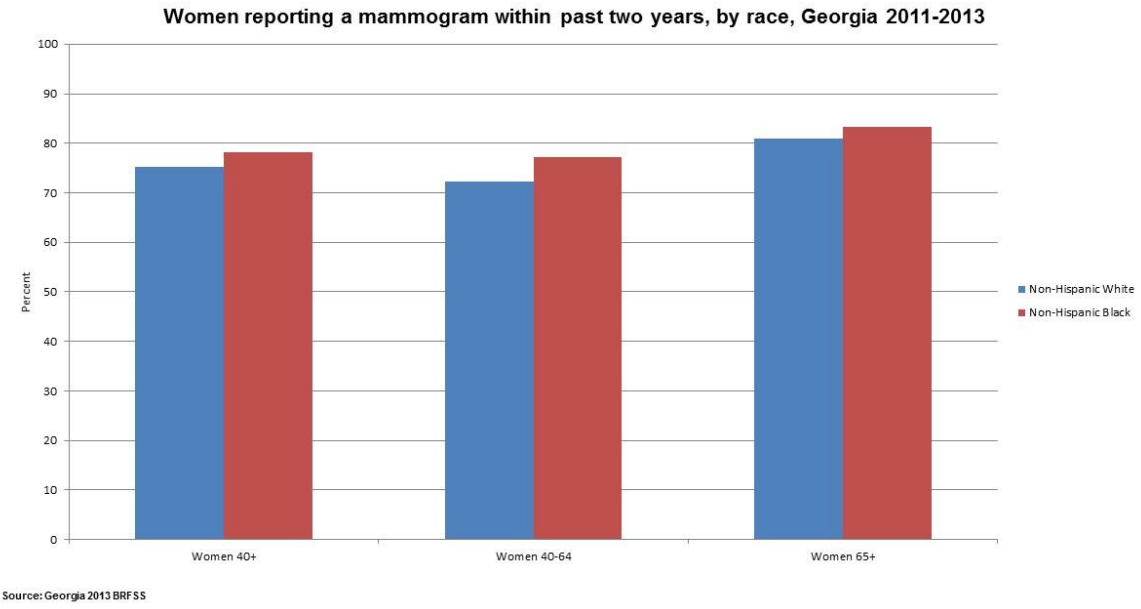


Figure 49. Women reporting a mammogram within past two years, by race, Georgia, 2011-2013

Health insurance status was an important factor in determining whether a woman gets proper and timely screenings. Among Georgia women aged 40-64 years, women with health insurance were significantly more likely to report a recent mammogram than women without health insurance (81 percent vs. 43 percent) (Figure 50). Women over age 65 are likely to be insured by Medicare; hence there were not enough respondents in the uninsured category to display a comparison.

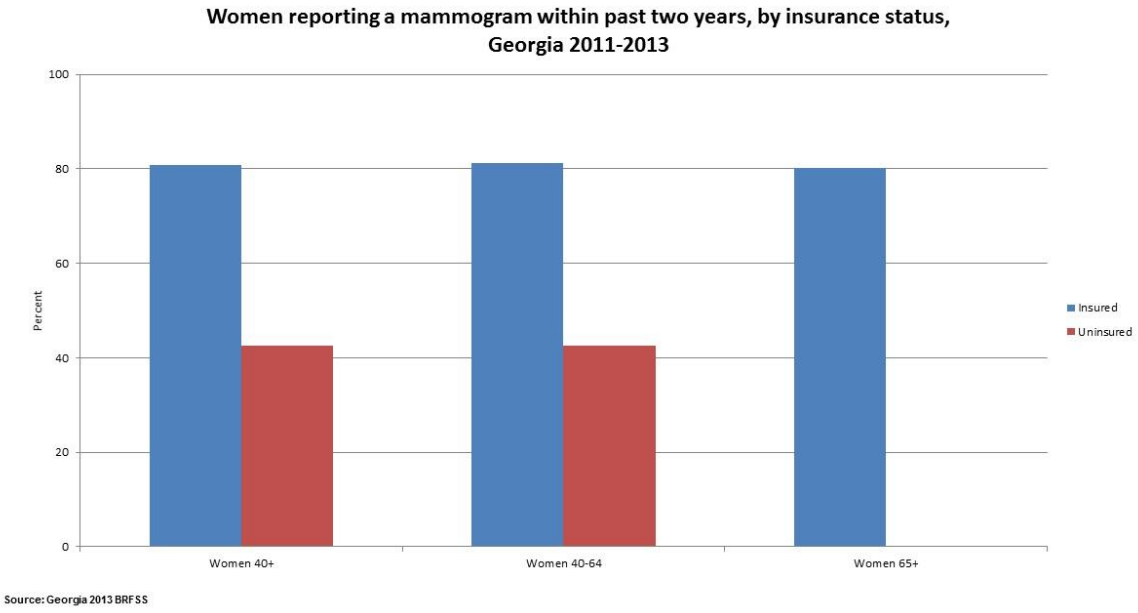


Figure 50. Women reporting a mammogram within past two years, by insurance status, Georgia, 2011-2013

Mammogram screening rates differed by income level. There was a clear gradient indicating that women at a higher income levels are more likely to have been screened within the past two years. Women making less than $25,000 were least likely to report a recent mammogram of the three income groups, regardless of age (overall: 67 percent vs. 77 and 82 percent, respectively) (Figure 51).

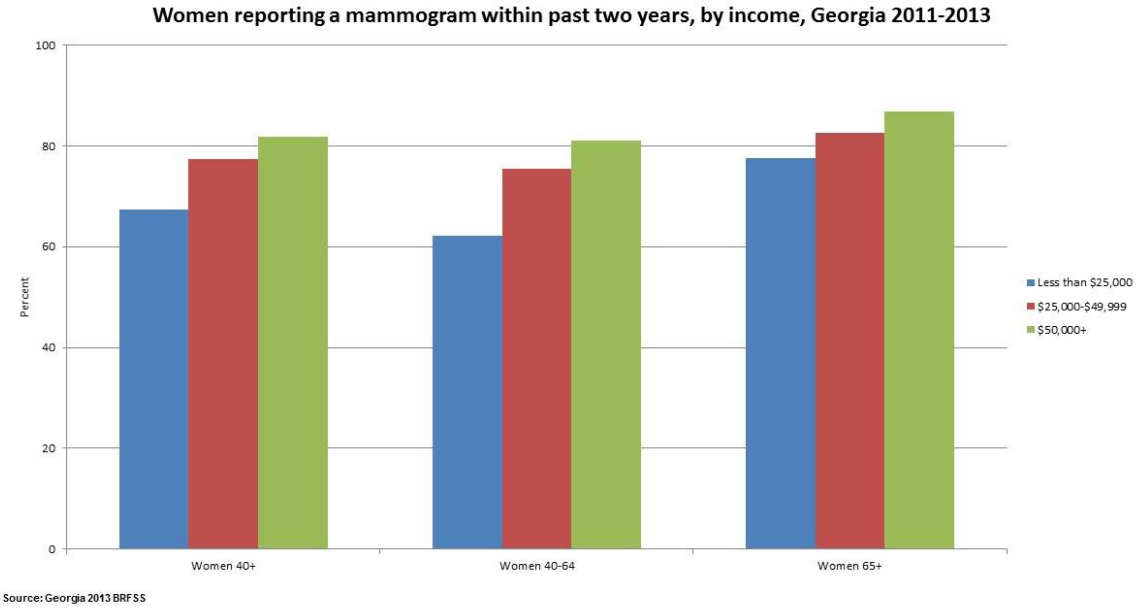


Figure 51. Women reporting a mammogram within past two years, by income, Georgia, 2011-2013

CERVICAL CANCER INCIDENCE, FEMALES

From 2000-2011, cervical cancer incidence rates among females in Georgia were generally similar to those for US females and both have been following a downward trend (Figure 52). The rates for US females decreased by 4.3 percent per year from 2000-2003 followed by a more modest decrease of 1.2 percent per year from 2003-2011. Among Georgia females, rates decreased by about 2.2 percent per year from 2000-2011.

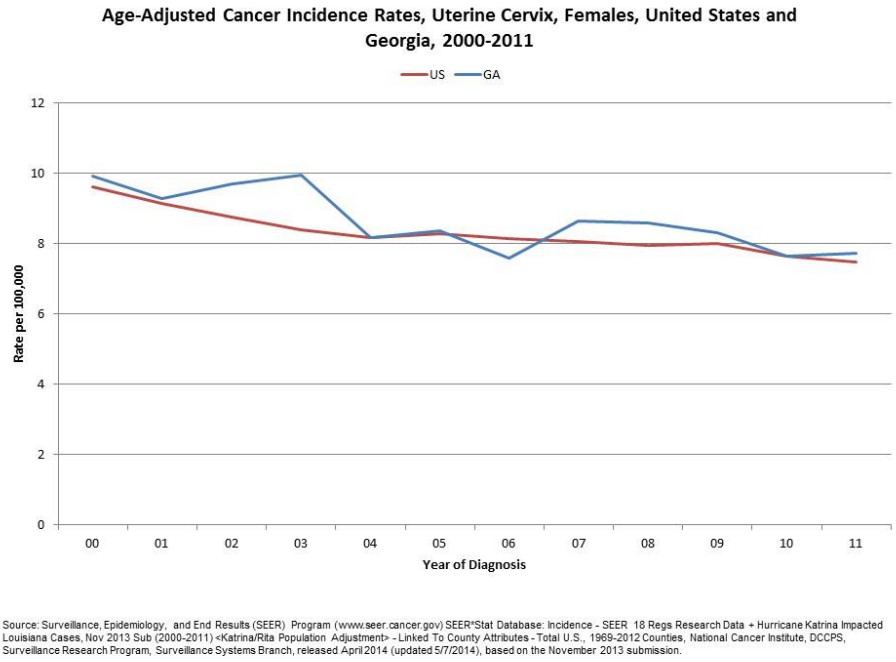


Figure 52. Age-adjusted cancer incidence rates, uterine cervix, females, US and Georgia, 2000-2011

Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 35 percent of invasive cervical cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 48 percent of cancers among NH white females (Figure 53). Cervical cancer was diagnosed at a late stage (regional or distant) for 60 percent of NH black females and 48 percent of NH white females. These numbers were similar to those for US females.

Invasive Cervical Cancer Incidence, Stage at Diagnosis, Females, United States and Georgia, 2005-2011

	United States		Georgia	
	NH Black	NH White	NH Black	NH White
Localized	38%	48%	35%	48%
Regional	41%	35%	44%	37%
Distant	16%	13%	16%	11%
Unknown/Unstaged	5%	4%	5%	3%

NH = Non-Hispanic

Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2014 Sub (2000-2012) <Katrina/Rita Population Adjustment> - Linked To County Attributes - Total U.S., 1969-2013 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015, based on the November 2014 submission.

Figure 53. Invasive cervical cancer incidence, stage at diagnosis, females, US and Georgia, 2005-2011

In Georgia from 2005-2011, 84 percent of NH black females and 89 percent of NH white females diagnosed with localized cervical cancer survived at least five years (Figure 55). Survival dropped dramatically to just 10 percent and 17 percent respectively for NH black and NH white females when discovered at a distant stage. These rates were similar to those for US females.

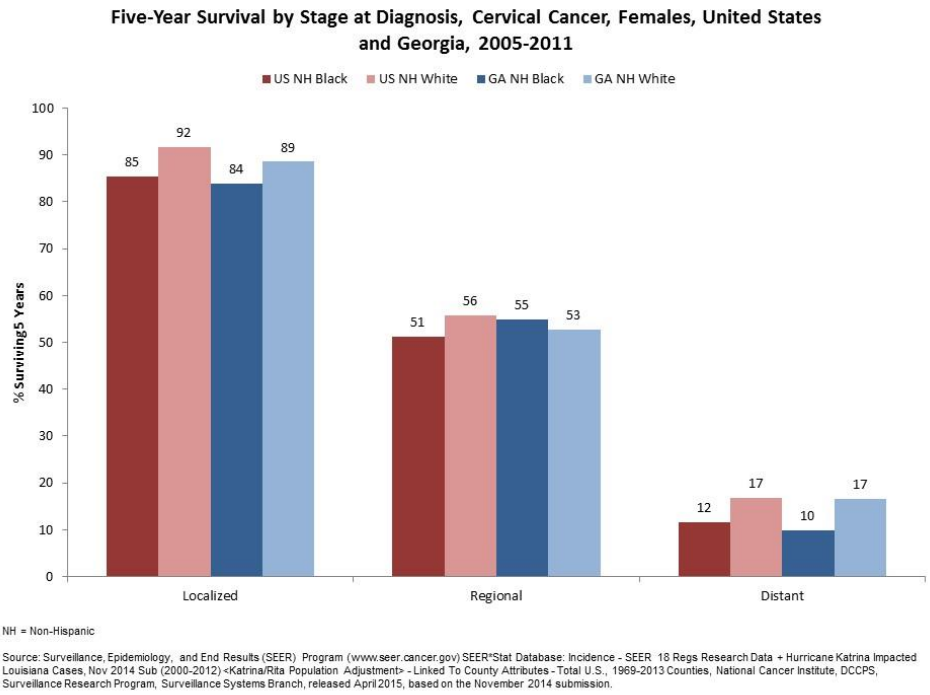


Figure 54. Five-year survival by stage at diagnosis, cervical cancer, females, US and Georgia, 2005-2011

CERVICAL CANCER SCREENING

Cervical cancer screening guidelines updated in 2012 recommend screening for women aged 21-65 years, after which Pap tests are no longer routinely recommended. Overall among Georgia women in this age group, 86 percent reported that their most recent Pap test was within three years (Figure 56). The cervical cancer screening rate was slightly higher for non-Hispanic black women than for non-Hispanic white women (81 percent vs. 90 percent).

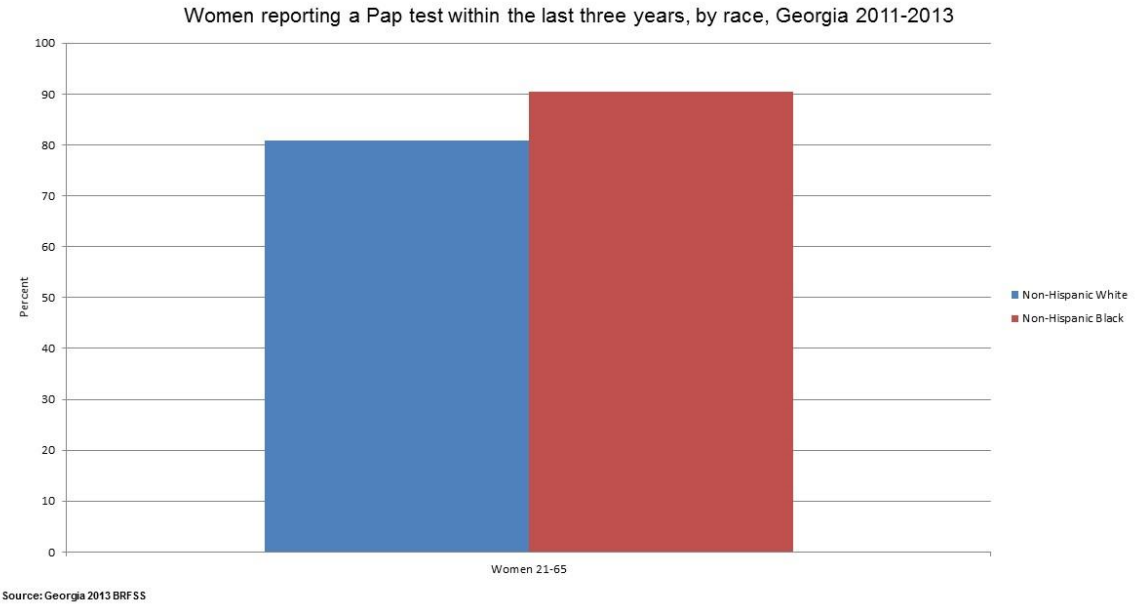


Figure 55. Women reporting a Pap test within the last three years, by race, Georgia, 2011-2013

Health insurance status is an important factor in determining whether a woman receives proper and timely screenings. Among Georgia women aged 21-65 years, women with health insurance were significantly more likely than women without health insurance to report having had a recent Pap test (90 percent vs. 73 percent).

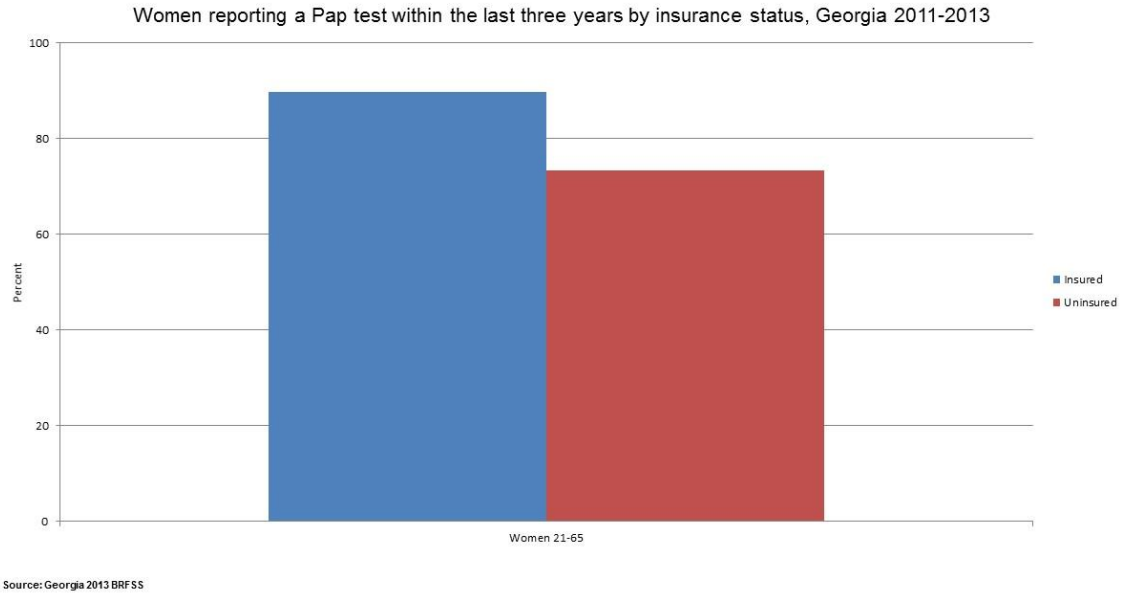


Figure 56. Women reporting a Pap test within the last three years, by insurance status, Georgia, 2011-2013

Cervical cancer screening rates varied by income level, there was a small but clear gradient indicating that women with higher income levels were more likely of have been screened recently. Women making less than $25,000 were least likely to report having had a Pap test within three years compared to other income groups (81 percent vs. 87 and 90 percent, respectively) (Figure 57).

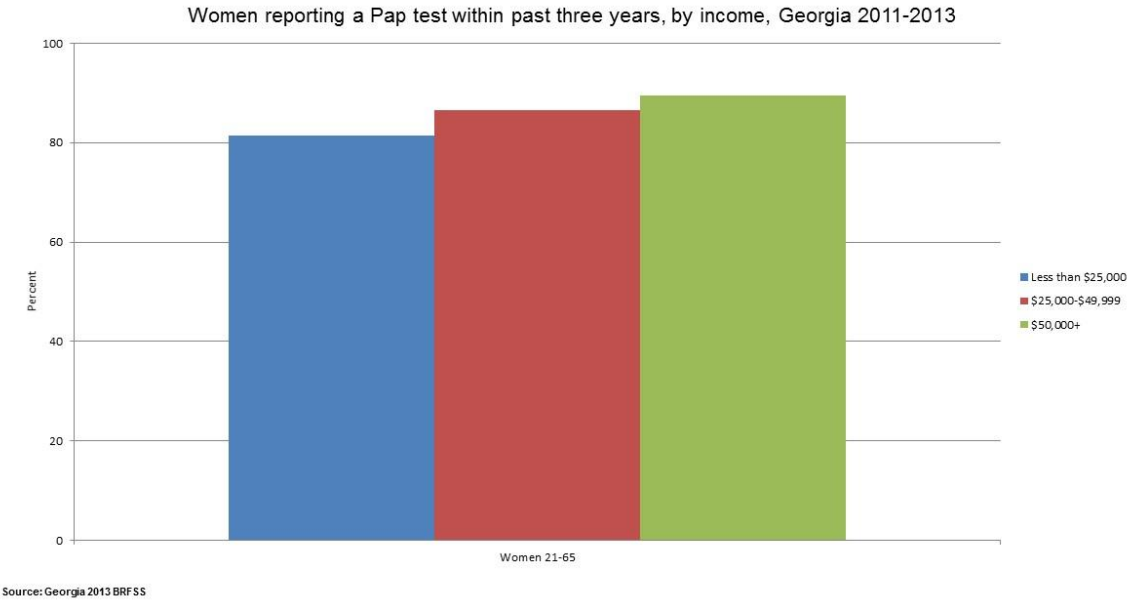


Figure 57. Women reporting a Pap test within the last three years, by income, Georgia, 2011-2013

ASTHMA

During 2013, the prevalence of asthma among Georgia children was 10.8 percent and that in adults was 8.4 percent.[2] Among Georgia children, asthma was more common in boys (12.6 percent than girls (8.9 percent); in black children (16.7 percent) than white children (7.6 percent); and among those aged 5-9 years (14.1 percent) than children in other age categories (Figure 58).

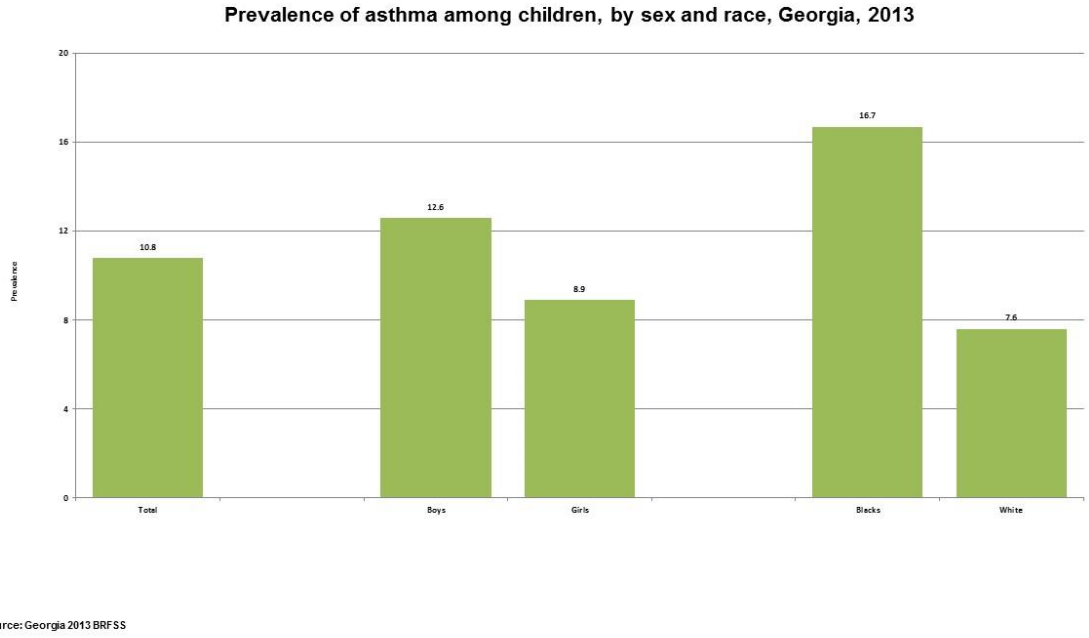


Figure 58. Prevalence of asthma among children, by sex and race, Georgia, 2013

Among adults, asthma prevalence was higher in females (11.3 percent) than males (5.3 percent); blacks (10.8 percent) than whites (7.9 percent); and those making less than $25,000 (12.4 percent) than those making $50,000 or more (5.7 percent) per year; those with less than high school diploma (11.4 percent) than those with college degree (6.5 percent); and those without health insurance (10.0 percent) than those with health insurance (7.9 percent) (Figure 59).

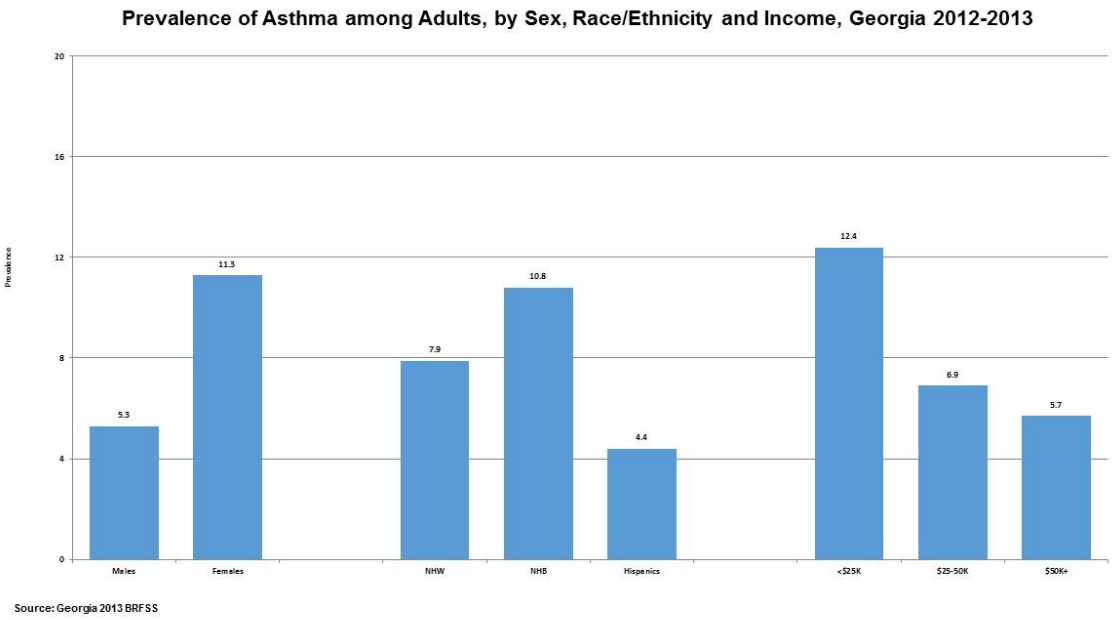


Figure 59. Prevalence of asthma among adults, by sex, race/ethnicity, and income, Georgia, 2012-2013

In Georgia during 2012-2013, the prevalence of current asthma was significantly higher among adults who were obese (10.7 percent) than adults with normal body weight (7.3 percent). Current asthma was also more common among adult smokers than non-smokers (Figure 60).

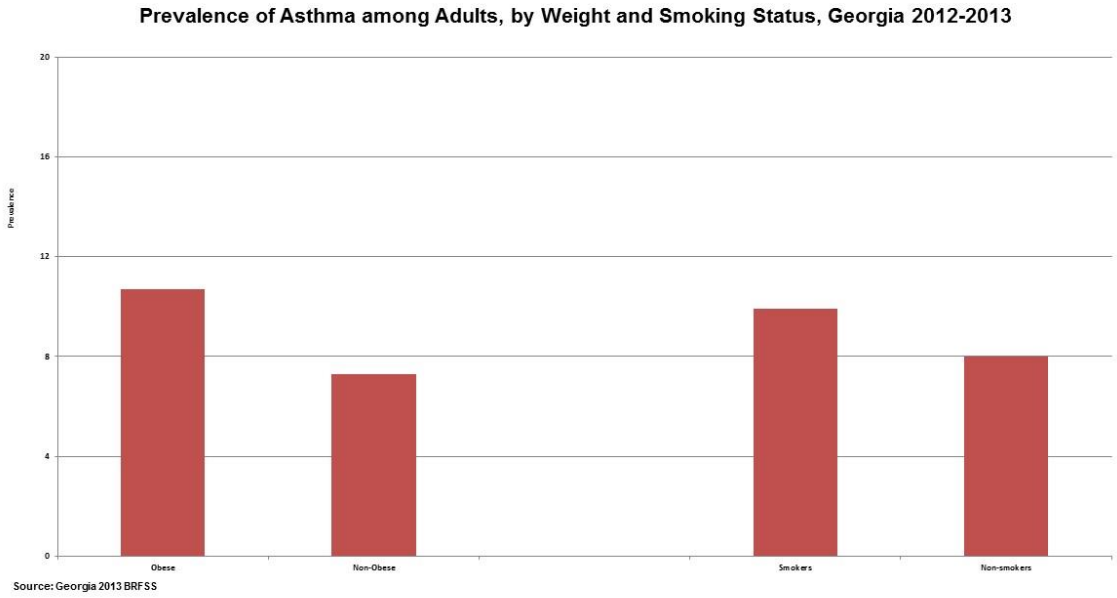


Figure 60. Prevalence of asthma among adults, by weight and smoking status, Georgia 2012-2013

Between 2002 and 2013, there were 621,271 asthma emergency room visits (ER) in Georgia, with an overall rate of 555 per 100,000 persons. The ER visit rate was higher among children 0-17 (1,018 per 100,000) than in adults 18 years and older (394 per 100,000).

Between 2002 and 2013, approximately 294,770 ER asthma visits were among children 0-17 years, which represented 47.5 percent of all the asthma ER visits while only 25 percent of Georgia population is in this age category (Figure 61). The rate of asthma ER visits is higher among black children (1,874 per 100,000) than white children (519 per 100,000); in boys (1,234 per 100,000) than girls (792 per 100,000); in children 0-4 (1,435 per 100,000) than older children 5-9 years (1,202 per 100,000) and 10-17 years (646 per 100,000). Among children, the highest asthma rate increase during 2002-2013 was observed among the 5-9 year olds.

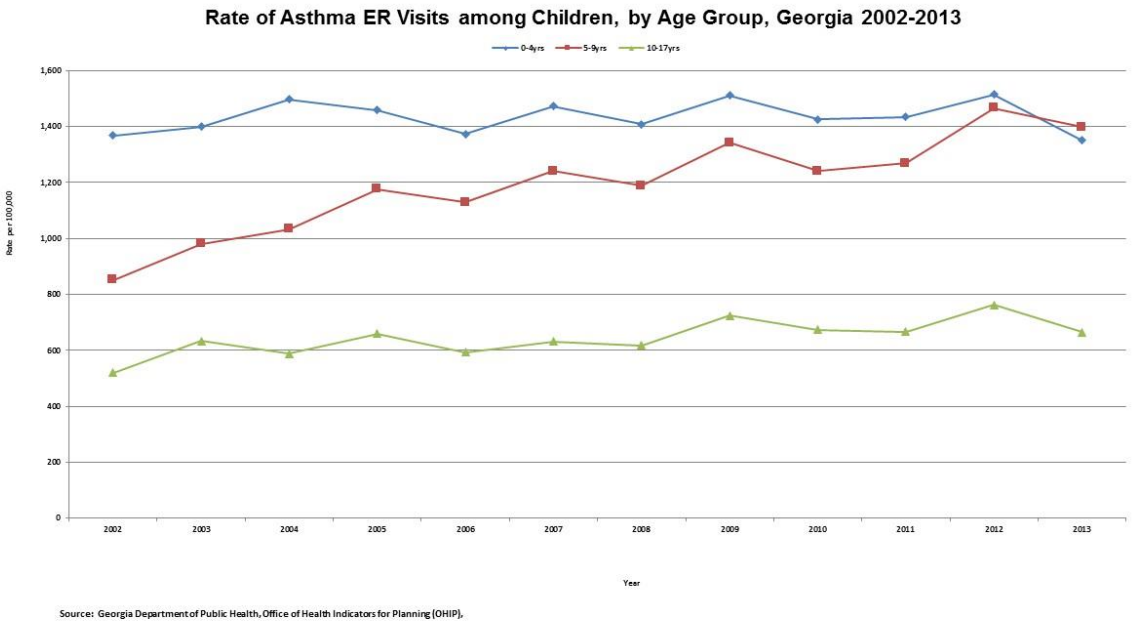


Figure 61. Rate of asthma ER visits among children, by age group, Georgia, 2002-2013

In Georgia and during the past 13 years, there was a decline in the rate of asthma hospitalizations in. Approximately 10,800 asthma hospitalizations per year were recorded annually during 2002-2013, an average rate of 113 per 100,000. The rate of asthma hospitalizations was higher in younger children 0-4 years (175 per 100,000) and older adults 65 years and older (164 per 100,000) compared to the other age categories.

ALZHEIMERS AND RELATED DEMENTIA

The Alzheimer's Association estimates that there are approximately 130,000 Georgians with Alzheimer's disease or related dementia (ADRD). Among Georgia Medicare eligible population who were alive at the end of 2013, about 6.4 percent (91,772) had a diagnosis of ADRD (Figure 62). Among this population, ADRD was more common in older adults, females and whites (Figure 63).

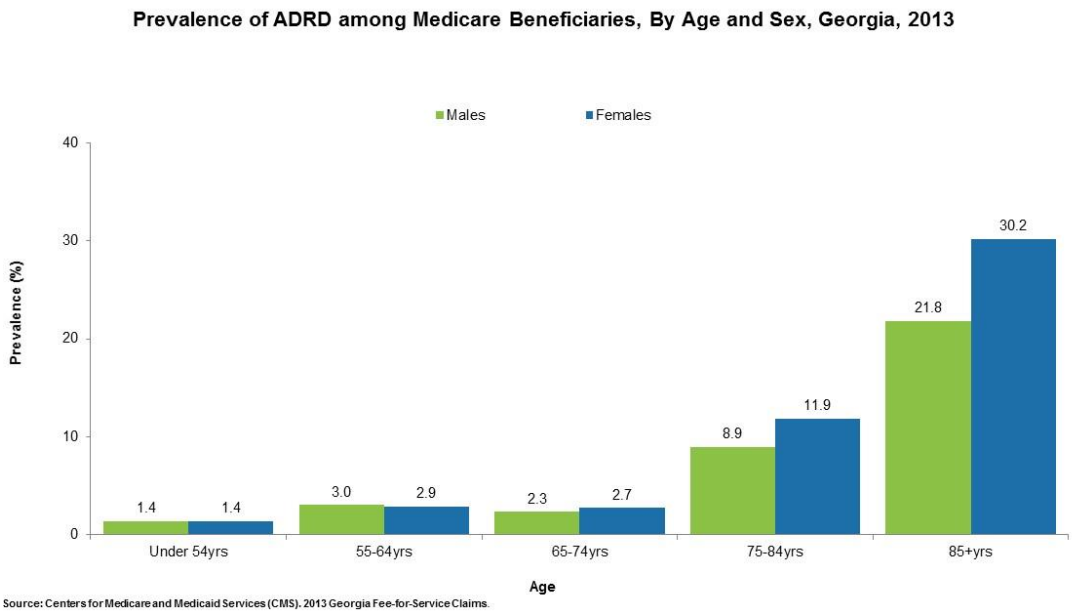


Figure 62. Prevalence of ADRD among Medicare Beneficiaries, by age and sex, Georgia, 2013

During 2013, among Medicare beneficiaries with ADRD in Georgia, approximately 20,670 died. Of the beneficiaries with ADRD who died, approximately 30 percent had ADRD listed as the primary cause of death, while the remaining had other causes such as ischemic heart attack, heart failure, pneumonia/flu, and sepsis as the primary cause of death.

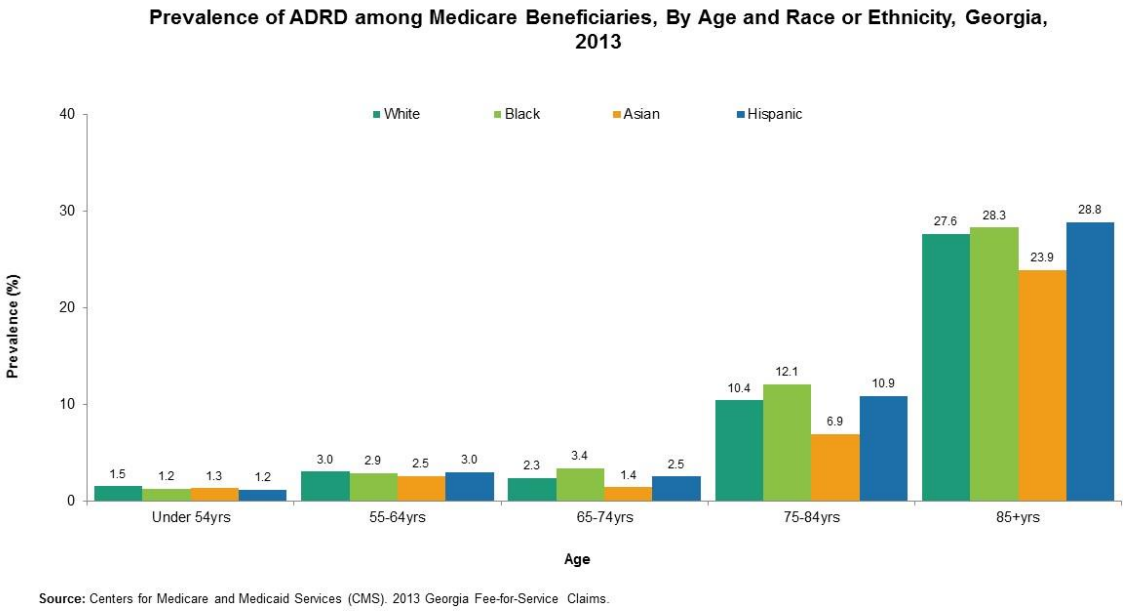


Figure 63. Prevalence of ADRD among Medicare Beneficiaries, by age and race/ethnicity, Georgia, 2013

In Georgia during 2013, the prevalence of ADRD among the Medicare beneficiaries was lower among residents of the metro Atlanta areas except for the DeKalb Public Health District (Figure 64). The South (Valdosta) and Southeast (Waycross) Public Health Districts had ADRD prevalence exceeding 7 percent.

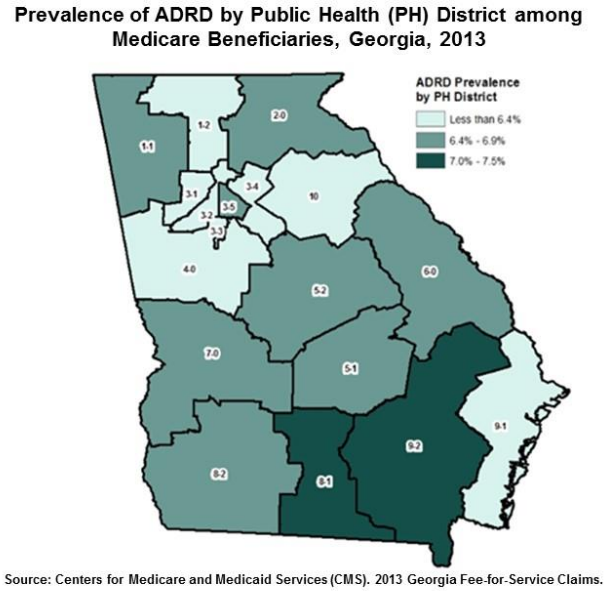


Figure 64. Prevalence of ADRD by Public Health District among Medicare Beneficiaries, Georgia, 2013

During 2013, 12.2 percent of adults aged 45 years and older reported experiencing confusion or memory loss that was happening more or getting worse, termed as increased confusion or memory loss (ICML) (Figure 65). In Georgia during 2013, experiencing ICML was not significantly different by sex or race, although, the prevalence was higher among females and blacks. The prevalence of ICML was significantly higher among those making less than $35,000 per year (19 percent) than those whose annual household income was $50,000 or more (6.4 percent) (Figure 66).

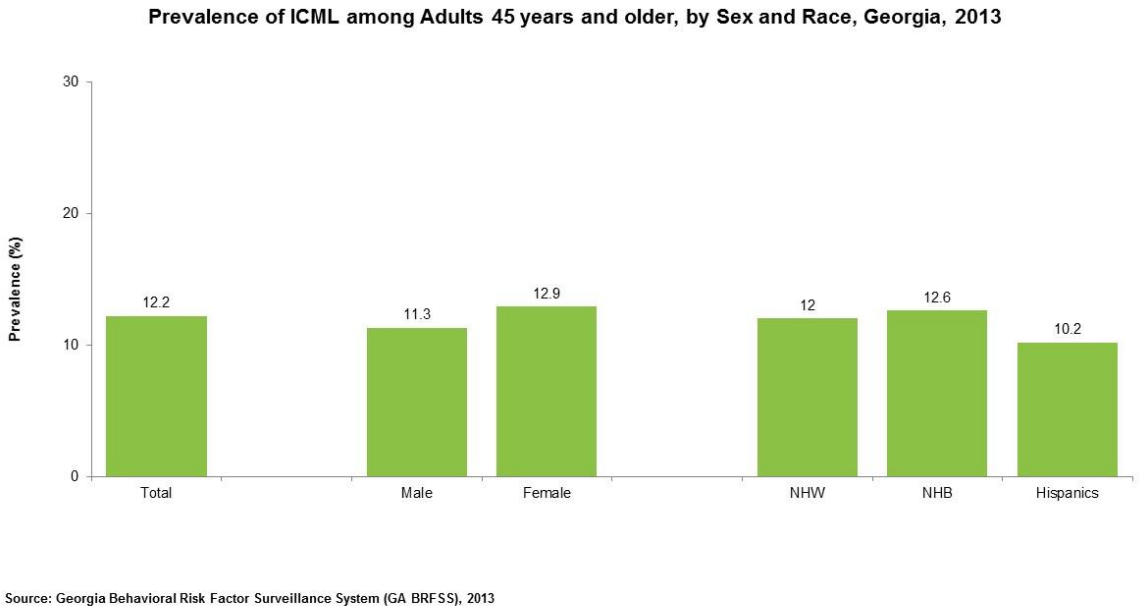


Figure 65. Prevalence of ICML among adults 45 years and older, by sex and race, Georgia, 2013

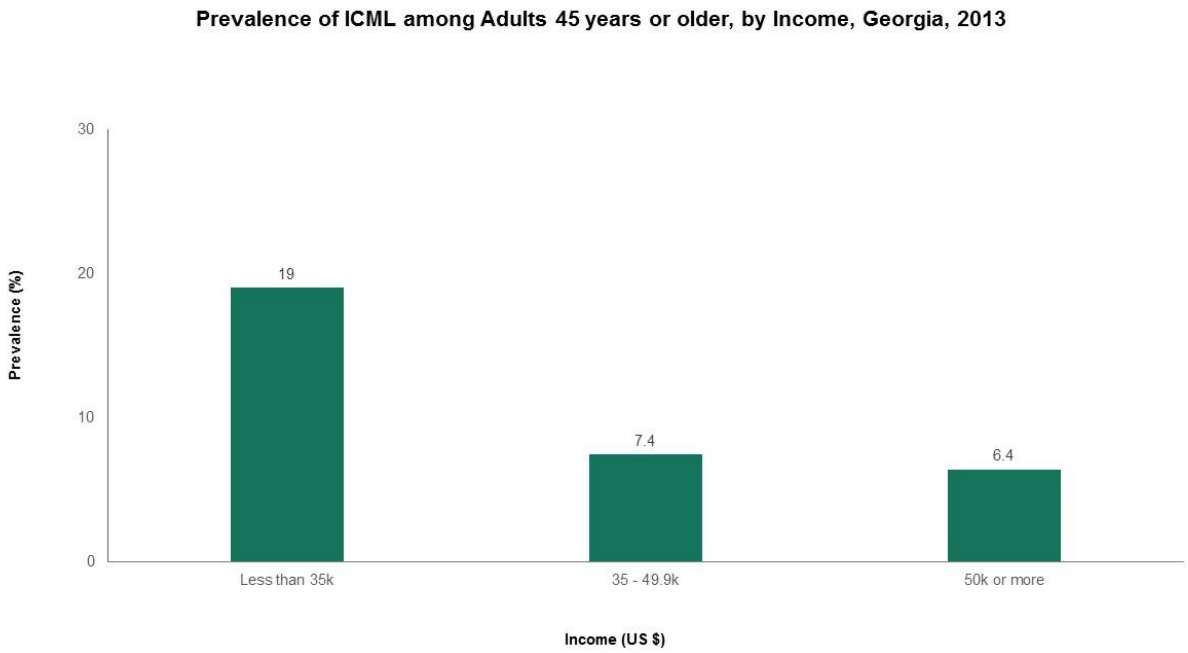


Figure 66. Prevalence of ICML among adults 45 years or older, by income, Georgia, 2013

CARDIOVASCULAR DISEASE

Between 2000 and 2013, there were over 1.8 million cardiovascular disease (CVD) hospital discharges. During this time CVD hospitalization rate decreased in both males and females. In 2013, the age-adjusted CVD hospitalization rate was 1509.3 per 100,000 persons accounting for over 125,000 CVD discharges. The age-adjusted hospitalization rate was highest among males (1509.3 per 100,000 persons) and blacks (1700.4 per 100,000 persons) (Figure 67).

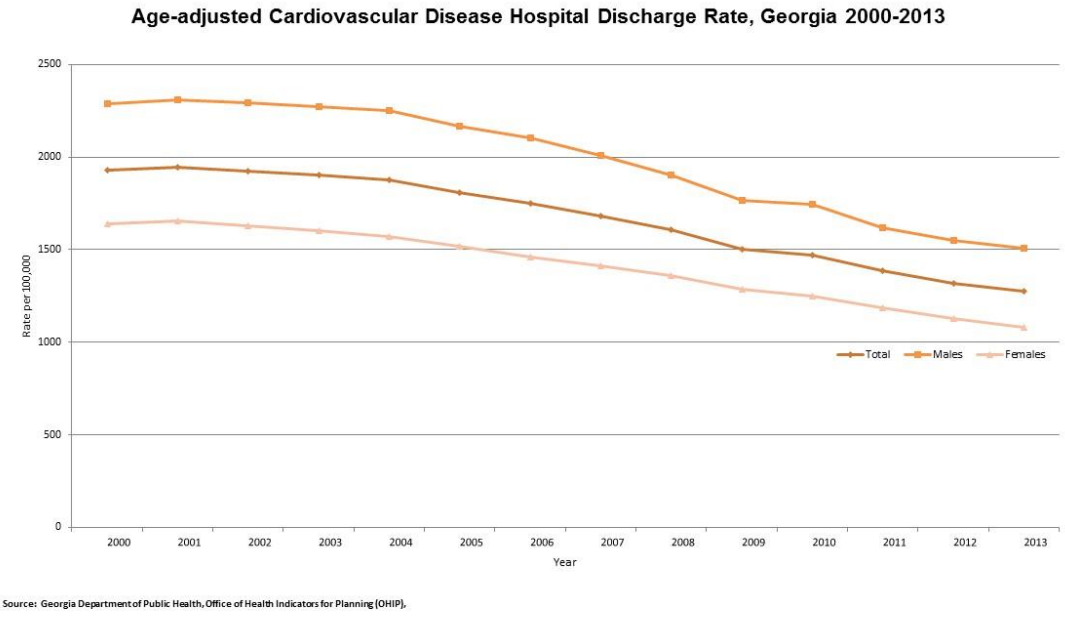


Figure 67. Age-adjusted cardiovascular disease hospital discharge rate, Georgia, 2000-2013

From 2012 to 2013, the prevalence of CVD-related events* among Georgia adults was 8.2 percent. Among adults, the prevalence was highest among: Males (9.1 percent vs. 7.5 percent in females); NH whites (9.2 percent vs. 8.1 percent for NH blacks); those aged 75 years and older (30.0 percent vs. 0.7 percent for those aged 18-24); those making less than $25,000 per year (11.8 percent vs. 5.1 percent for those making $50,000 or more per year); those with less than a high school education (12.9 percent vs. 4.6 percent for college graduates); those with an insurance plan (9.3 percent vs. 4.8 percent for those without an insurance plan)

Among Georgia adults with CVD-related events*, the prevalence of smoking was 19.7 percent (vs. 19.5 percent for adults without CVD-related events); Tobacco use was 23.4 percent (vs. 22.5 percent); Diabetes was 30.8 percent (vs. 8.7 percent); Obesity was 35.9 percent (vs. 29.1 percent); Hypertension was 76.4 percent (vs. 31.5 percent); High cholesterol was 69.6 percent (vs. 35.4 percent); Meeting physical activity recommendations was 12.4 percent (vs. 21.0 percent) (Figure 68).

*CVD-related events include individuals that were ever told they had a heart attack, angina, or stroke by a health professional.

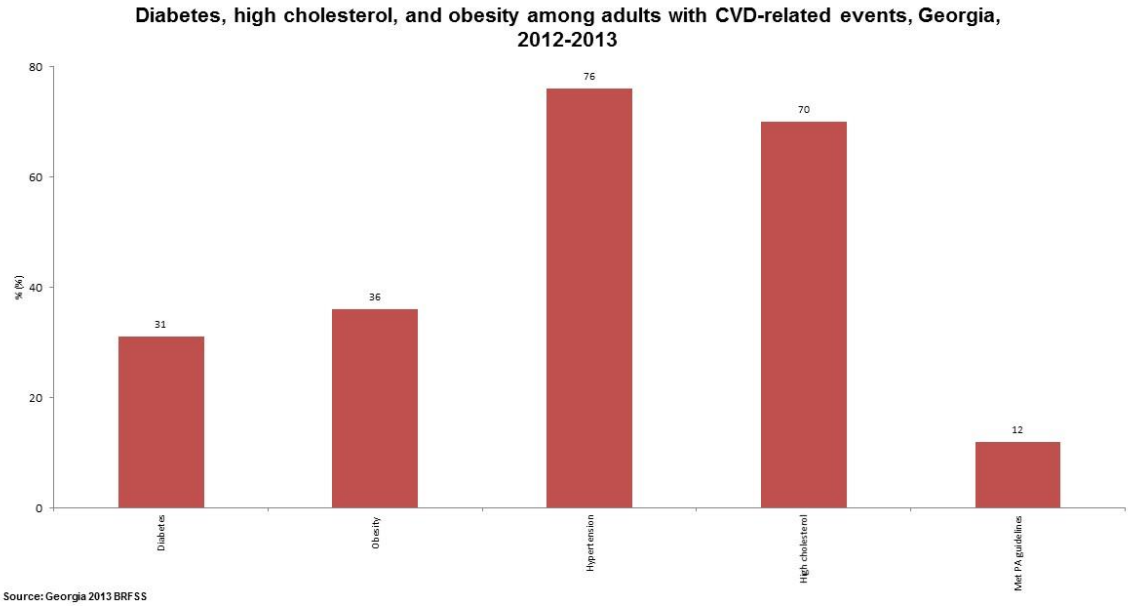


Figure 68. Diabetes, high cholesterol, and obesity among adults with CVD-related events, Georgia, 2012-2013

STROKE

Stroke is a medical emergency that results in significant mortality in Georgia. Georgia's stroke mortality rate is greater than the U.S. overall, and the rate is significantly higher for blacks than whites (Figure 69).

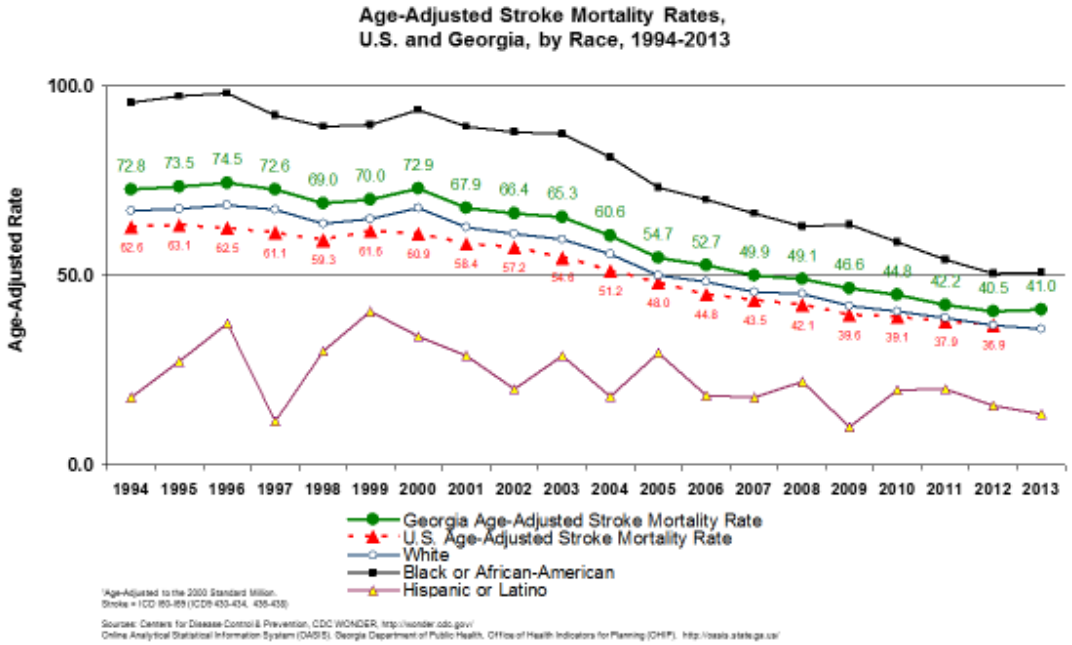


Figure 69. Age-adjusted stroke mortality rates, US and Georgia, by race, 1994-2013

The stroke hospitalization rate is a proxy measure for the incidence of stroke in the general population. In the last 10 years, from 2004 to 2013, there has been a declining rate of stroke hospitalization in Georgia. This might be attributed to several measures taken to reduce the prevalence of stroke risk factors such as smoking cessation and better clinical care, particularly in hypertension control and lipid management.

The hospitalization rate for stroke was higher among males than females at all age groups. The difference in hospitalization rate by gender was similar for both whites and blacks; however, relatively more blacks than whites were hospitalized for stroke comparing both male and female groups, particularly in the younger age group (<65 yr.) where the rates double or triple.

Almost all (92 percent) stroke patients had one or more co-morbidity or risk factor at the time of stroke diagnosis. According to the Georgia Coverdell Acute Stroke Registry (GCASR), 81 percent of stroke patients had hypertension, 43 percent had dyslipidemia, 35 percent had diabetes and 23 percent had coronary artery disease, 14 percent had atrial fibrillation/flutter and 22 percent smoked at the time of their stroke event.

DIABETES

Between 2000 and 2013, there were 223,924 diabetes-related hospitalizations, in Georgia, with an age-adjusted rate of 179.1 per 100,000 persons. Among adults ≥ 18 years, the age-adjusted discharge rate was highest among males (182.3 per 100,000 persons) and NH blacks (323.7 per 100,000 persons). The age-specific hospital discharge rate was highest among those ≥ 65 years (322.4 per 100,000 persons) (Figure 70).

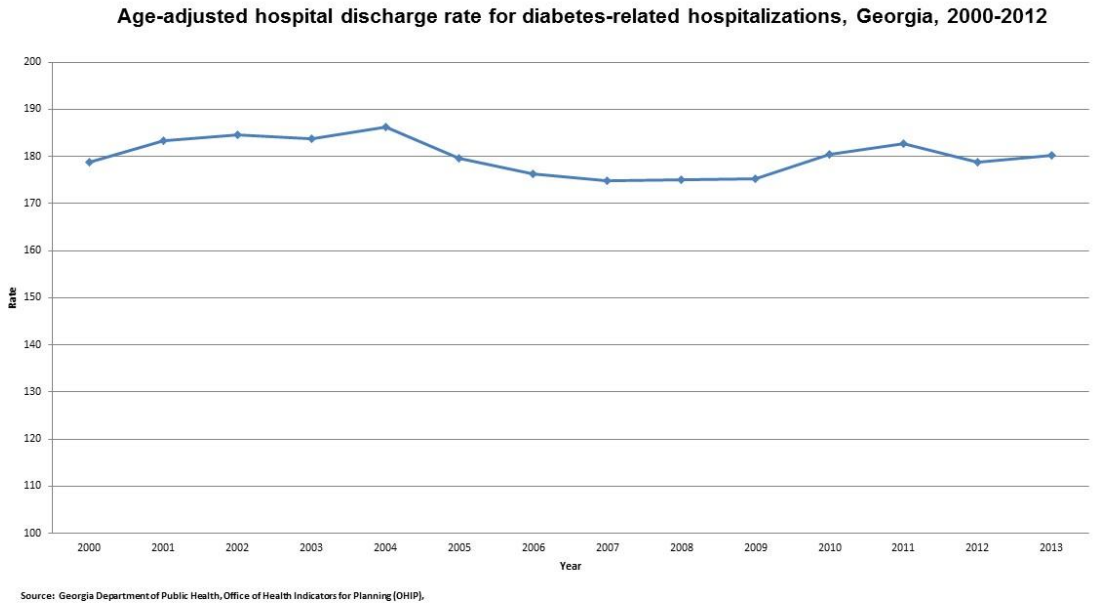


Figure 70. Age-adjusted hospital discharge rate for diabetes-related hospitalizations, Georgia, 2000-2012

From 2012 to 2013, the prevalence of diabetes among Georgia adults was 10.5 percent. The prevalence was highest among: those aged 65-74 (25.8 percent vs. 2.3 percent for those aged 18-24); females (10.6 percent vs. 10.3 percent in males); NH blacks (12.5 percent vs. 9.7 percent for NH whites); less than high school graduates (14.3 percent vs. 7.5 percent for college graduates); those with insurance plan (11.5 percent vs. 6.8 percent for those without an insurance plan); and those making $15,000 or less per year (13.1 percent vs. 7.8 percent for those making $75,000 or more per year).

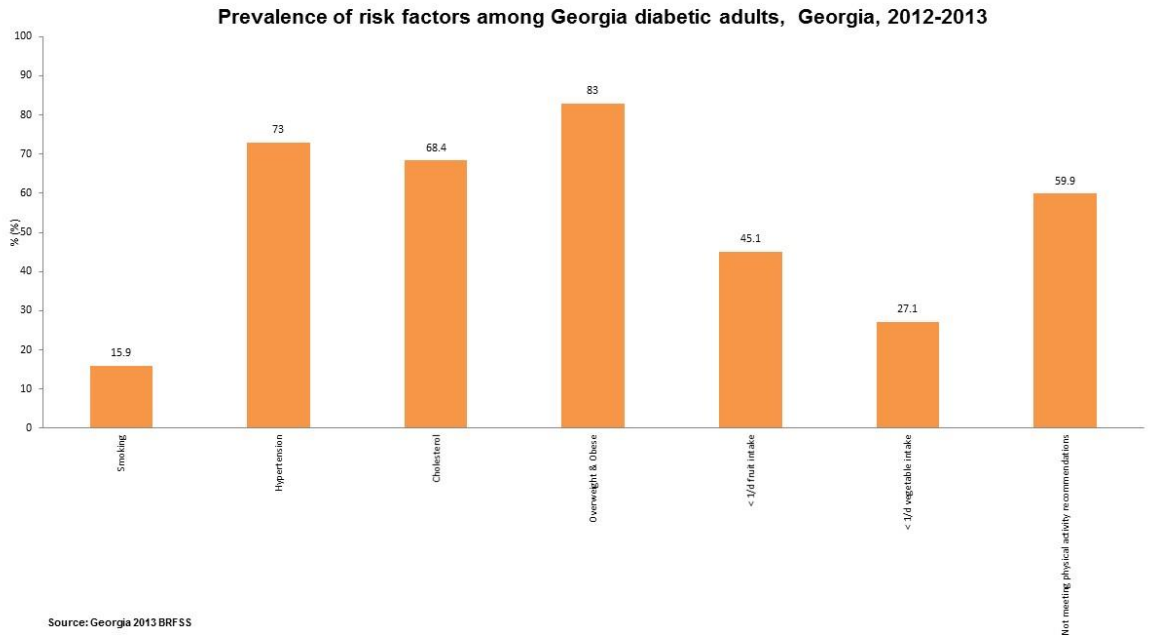


Figure 71. Prevalence of risk factors among Georgia diabetic adults, Georgia, 2012-2013

Among Georgia diabetic adults, the prevalence of smoking was 15.9 percent (vs. 19.9 percent for non-diabetics); hypertension was 73.0 percent (vs. 30.2 percent); cholesterol was 68.4 percent (vs. 34.1 percent); overweight and obesity was 83.0 percent (vs. 62.7 percent); at least once daily fruit intake was 54.9 percent (vs. 56.5 percent); at least once daily vegetable intake was 72.9 percent (vs. 76.3 percent); and meeting physical activity recommendations was 40.1 percent (vs. 50.5 percent) (Figure 71).

OBESITY

Obesity is defined as having a body mass index (BMI) greater than or equal to 30.0 kg/m^2. Obesity increases the risk of developing high blood pressure, diabetes, coronary heart disease, stroke, high cholesterol, gallbladder disease and some types of cancers. Healthy People 2020 target for obesity among adults is 30.5 percent. During 2012-2013, approximately 29.6 percent of Georgia adults were obese. Adults ages 18-24 years (17.7 percent) were least likely to be obese when compared to adults age 25 years and older (Figure 72).

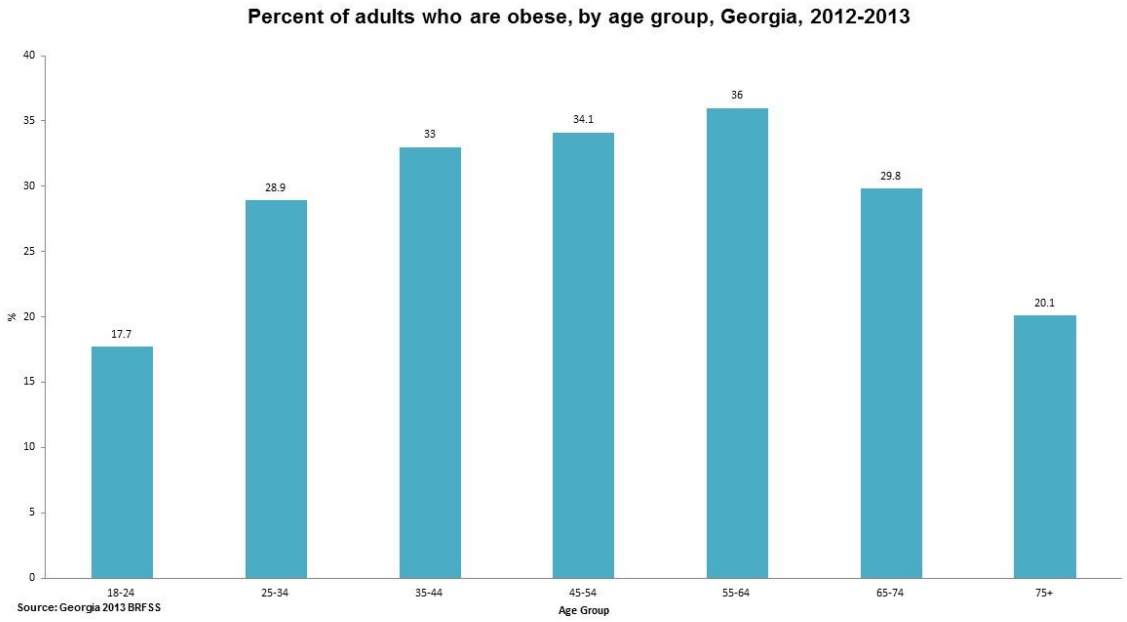


Figure 72. Percent of adults who are obese, by age group, Georgia, 2012-2013

Among adults, obesity was higher in females (30.9 percent) than males (28.3 percent); non-Hispanic Black (37.2 percent) were significantly more likely to be obese when compared to non-Hispanic White (26.7 percent); those with no insurance coverage (31.2 percent); and those making $25,000 or less (33.5 percent) than those making $50,000 or more (26.9 percent) per year. Obesity was less likely among adults with a college degree (23.7 percent) when compared to adults with less than a high school degree (31.6 percent.) (Figure 73).

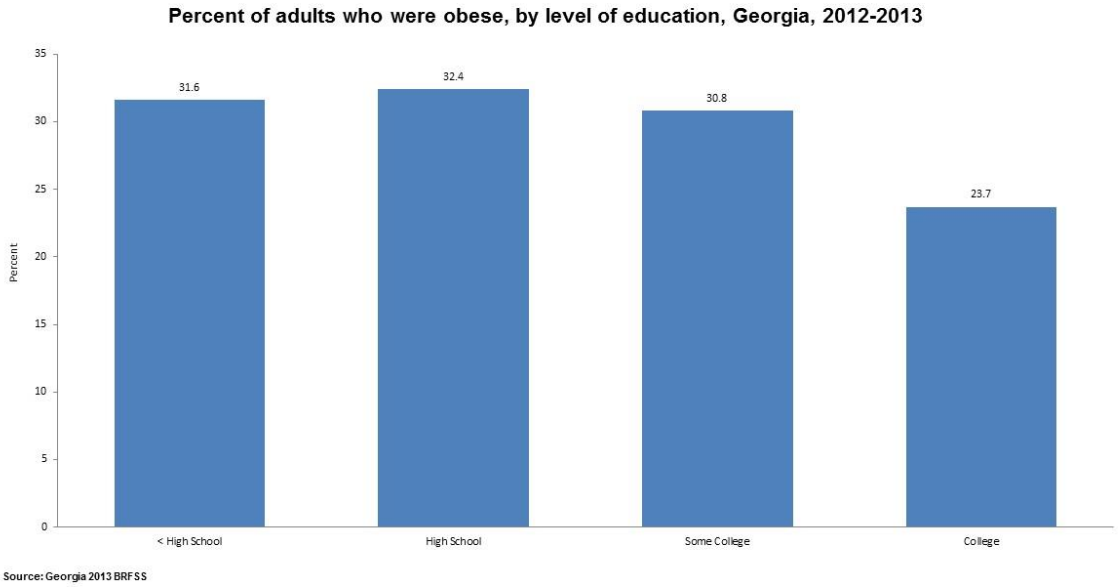


Figure 73. Percent of adults who were obese, by level of education, Georgia, 2012-2013

PHYSICAL ACTIVITY

The 2008 Physical Activity Guidelines for Americans recommends that adults and healthy older adults should participate in moderate physical activity for at least 150 minutes per week, vigorous physical activities for at least 75 minutes per week, or an equivalent combination of both and to participate in muscle strengthening activities on two or more days a week. In 2013, 20.9 percent of Georgia adults met both the aerobic and muscle strengthening activities, while 27.2 percent of Georgia adults reported no leisure time physical activity. The proportion of adults who engaged in adequate physical activity decreases as age increases (Figure 74).

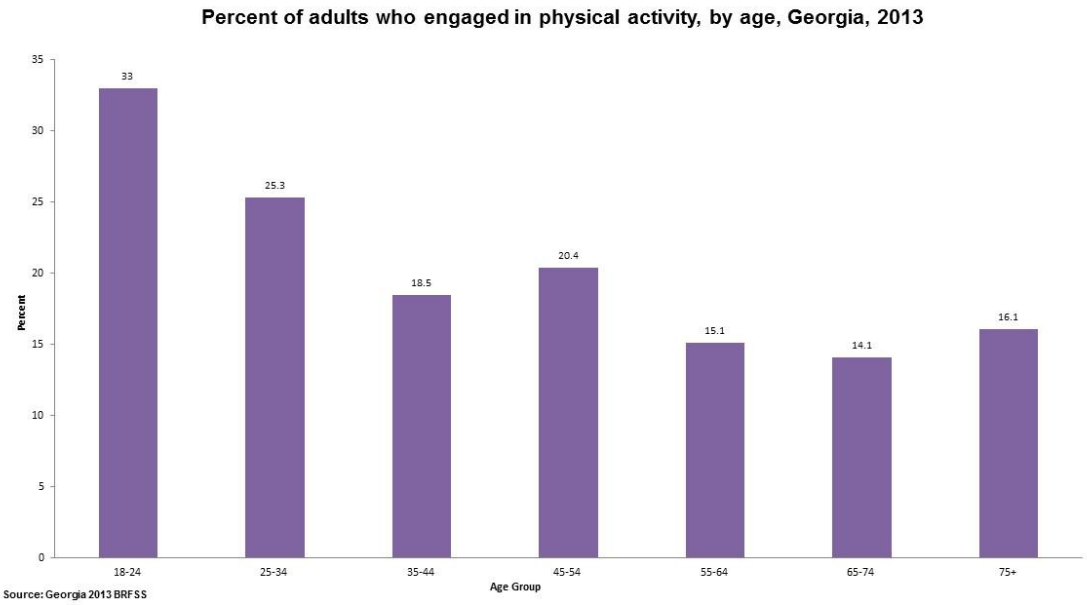


Figure 74. Percent of adults who engaged in physical activity, by age, Georgia, 2013

Adult males (26.4 percent) were significantly more likely than females (16.8 percent) to engage in physical activity. Hispanic (12.9 percent) adults were significantly less likely to engage in adequate physical activity when compared to non-Hispanic White (21.5 percent) and non-Hispanic Black adults (21.7 percent). In 2013, adults with incomes less than $25,000 (15.9 percent) were less likely to engage in physical activity. Georgia adults with less than high school education (12.5 percent) were significantly less likely to engage in physical activity when compared to college graduate (27.4 percent) (Figure 75).

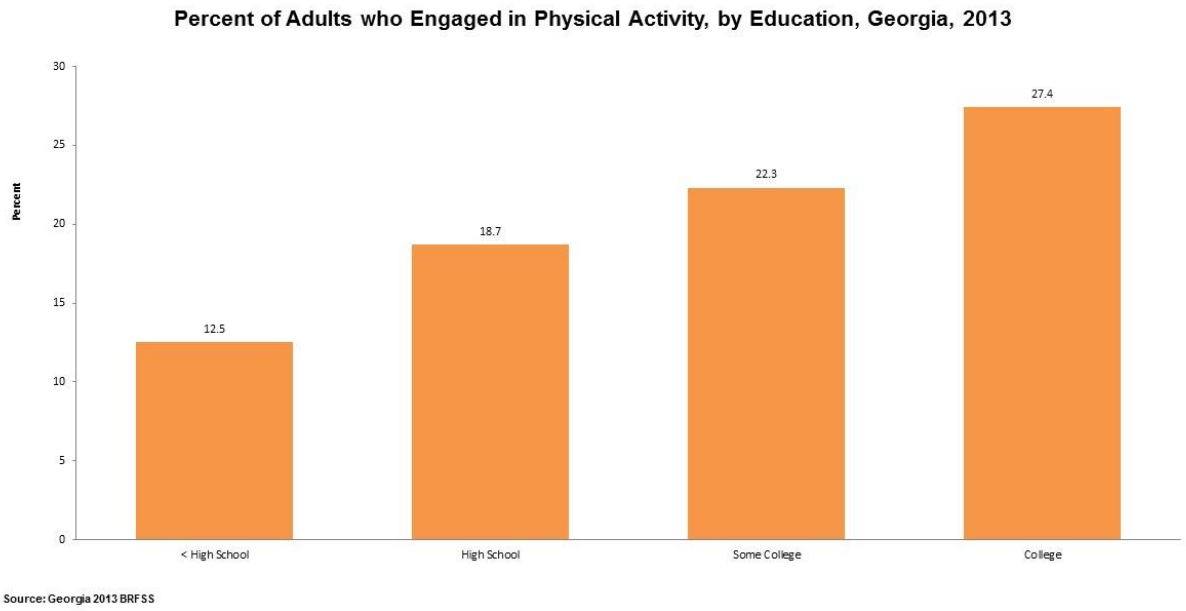


Figure 75. Percent of adults who engaged in physical activity, by education, Georgia, 2013

TOBACCO

Cigarette smoking is one of the leading causes of preventable deaths in the United States and Georgia. Smoking is associated with deaths related to cancer, respiratory diseases and cardiovascular diseases. About 10 percent of deaths among Georgia adults are linked to smoking. During 2013, approximately 19.6 percent of Georgia adults were current smokers. Young adults in Georgia are more likely than any other age group to smoke cigarettes (Figure 76).

Adult males (23 percent) were significantly more likely to currently smoke than females (16.4 percent). non-Hispanic Whites (21 percent) were more likely to be current smokers than non-Hispanic Blacks (18.3 percent) and Hispanics (16.4 percent). Adults who had health insurance (15.5 percent) were significantly less likely to currently smoke than adults without health insurance (33.5 percent); and adults with incomes less than $25,000 (28.9 percent) were more likely to currently smoke cigarettes than those with an annual income of $25,000 or higher.

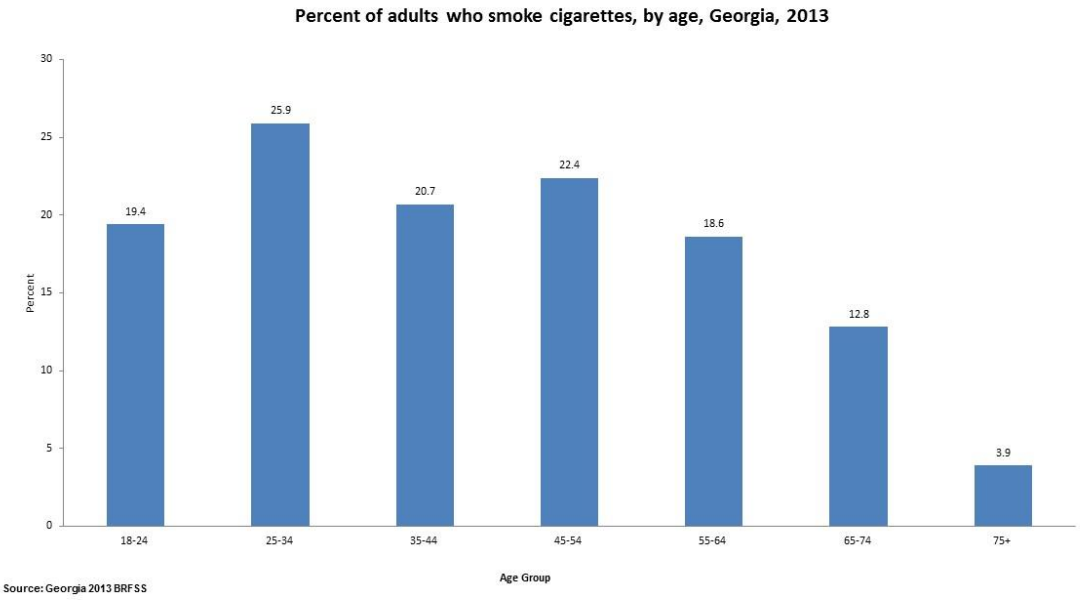


Figure 76. Percent of adults who smoke cigarettes, by age, Georgia, 2013

Georgia adults with less than a high school education (32.7 percent) were significantly more likely to currently smoke cigarettes than college graduates (8.2 percent) (Figure 77).

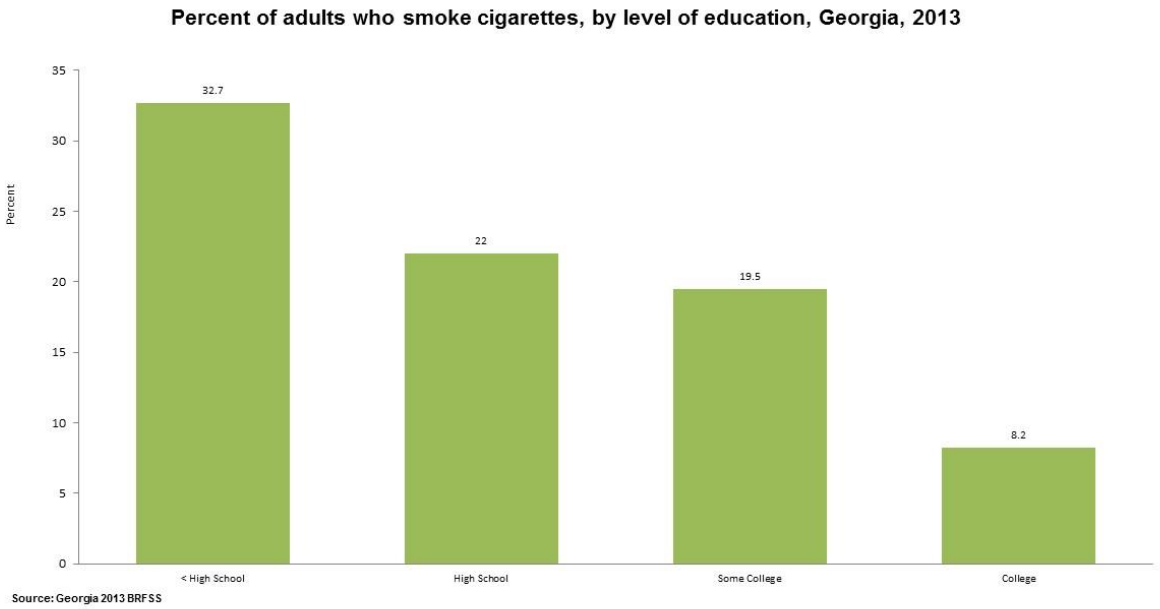


Figure 77. Percent of adults who smoke cigarettes, by level of education, Georgia, 2013

PNEUMOCOCCAL DISEASE DEATHS

Pneumococcal disease is caused by the bacterial pathogen *Streptococcus pneumoniae;* infections can be very severe and result in pneumonia, bacteremia and meningitis. It is estimated that about 1million US adults get pneumococcal pneumonia each year. About 5 percent to7 percent of them will die, and the death rate is even higher in those age 65 years and older (Figure 78).

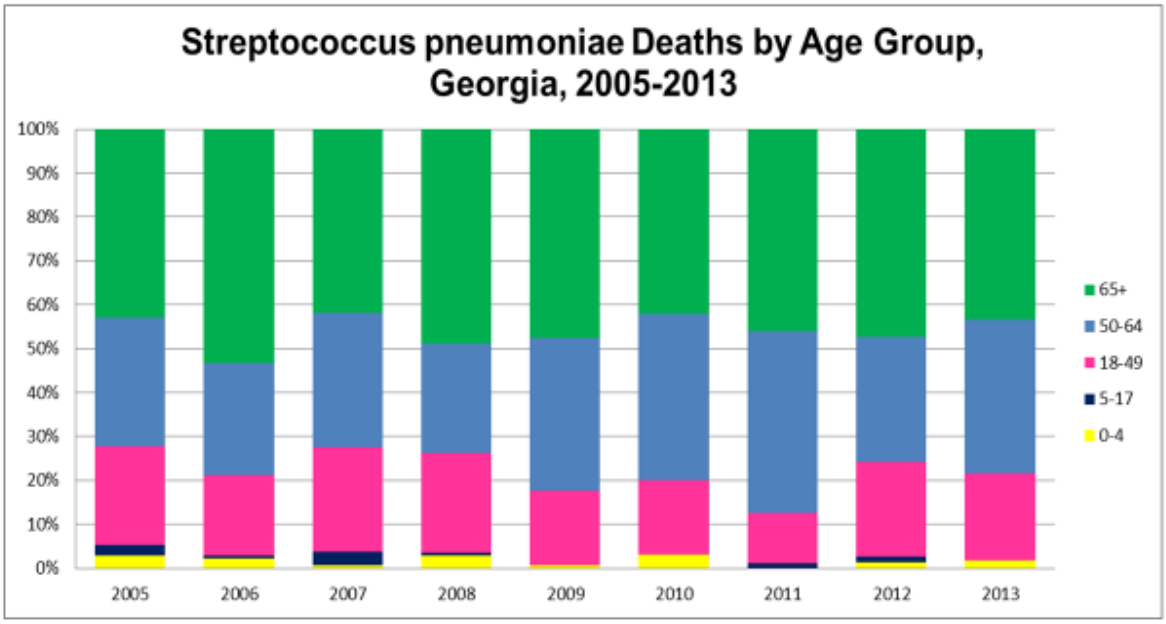


Figure 78. Streptococcus pneumoniae deaths by age group, Georgia, 2005-2013

Information about pneumococcal disease deaths collected via Georgia Notifiable Disease Surveillance and Emerging Infections Program data showed some fluctuations in both the number of deaths and the death rates during the period from 2005-2013, but overall, the rate trends were relatively stable other than a 2-year dip during 2011-12. To prevent deaths, vaccines are available and are recommended for routine use in children, adults age 65 years and older, and adults age 19 to 64 years with certain risk conditions.

Georgia notifiable disease data during 2005-2013 showed that the majority of pneumococcal deaths occurred among those 65 years and older, underscoring the critical importance of receiving a pneumococcal vaccine as recommended in this vulnerable population.

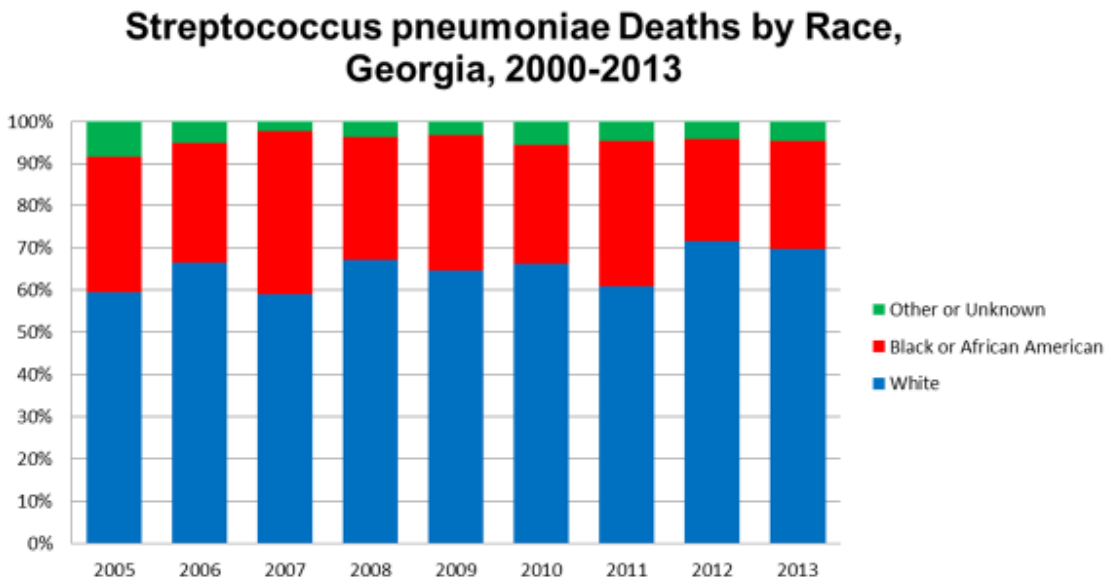


Figure 79. Streptococcus pneumoniae deaths by race, Georgia, 2000-2013

During 2000-2013, most pneumococcal deaths in Georgia occurred among Whites, but no significant differences were noted by gender (some years, males were slightly higher) (Figure 79; Figure 80).

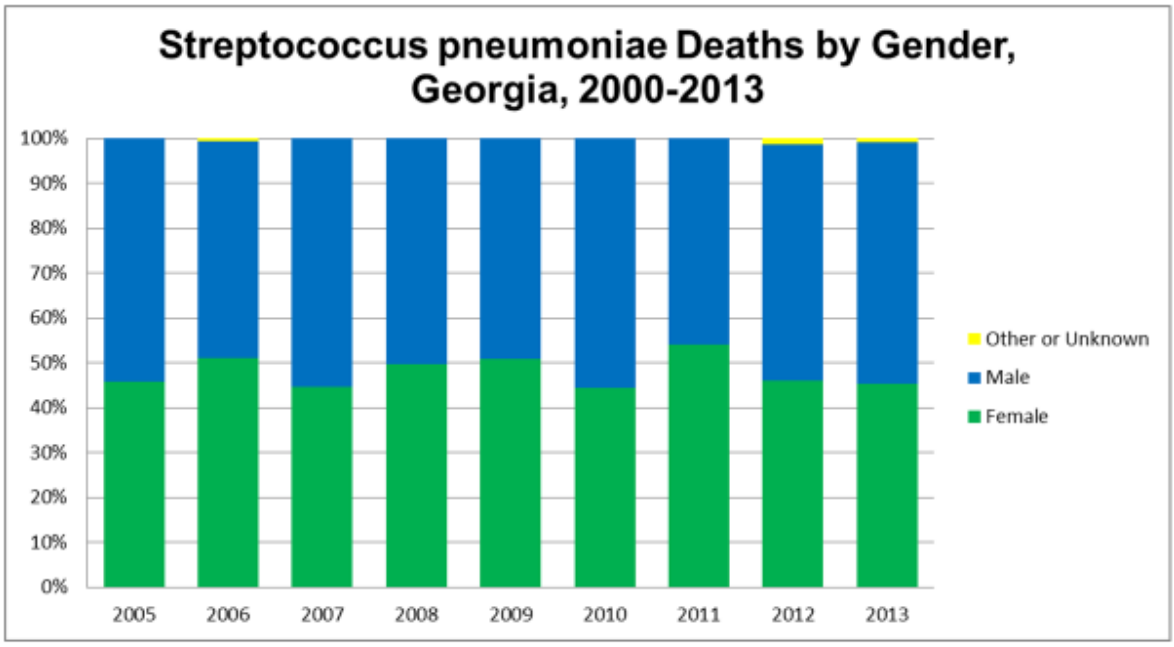
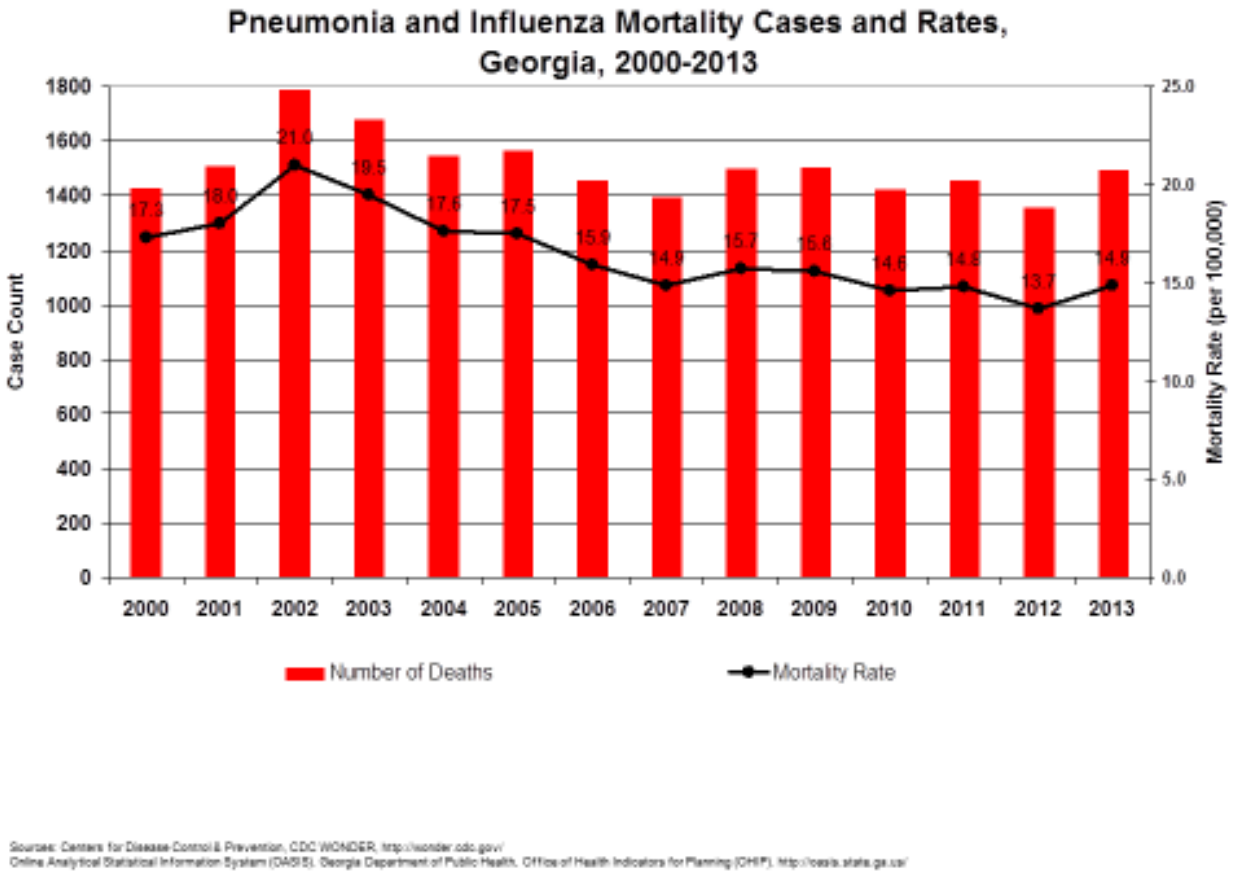


Figure 80. Streptococcus pneumoniae deaths by gender, Georgia, 2000-2013

PNEUMONIA AND INFLUENZA-RELATED DEATHS

Information about pneumonia and influenza-related deaths collected via Georgia death certificate data showed some fluctuations in both the number of deaths and the death rates during the period from 2000-2013, but overall, the rate trends were relatively stable (Figure 81).



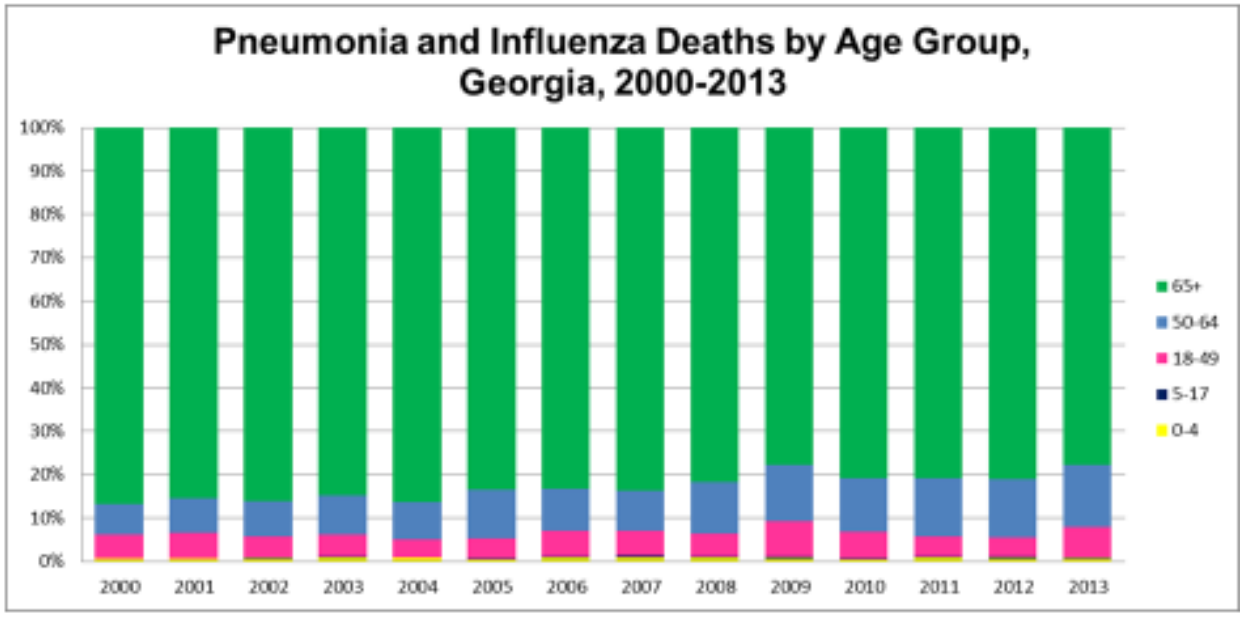
Sources: Centers for Disease Control & Prevention, CDC WONDER, http://wonder.cdc.gov/
Online Analytical Statistical Information System (OASIS). Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP). http://oasis.state.ga.us/

Figure 81. Pneumonia and influenza mortality cases and rates, Georgia, 2000-2013

Note that these data do not capture all influenza deaths, do not differentiate pneumonia deaths from influenza-related deaths, and that they encompass all pneumonia etiologies. It is also important to note that, each influenza season varies in regards to the predominant circulating influenza strain; some influenza strains (like influenza A H3N2) are more likely to result in severe outcomes like death, especially among the elderly.

CDC estimates that 90 percent of flu-related deaths occur in people age 65 and older. Information collected via Georgia death certificate data during 2000-2013 showed that the vast majority of pneumonia and influenza deaths (collectively) also occurred among those 65 years and older, underscoring the critical

importance of receiving a seasonal influenza vaccine every year in this vulnerable population (Figure 82).



Sources: Centers for Disease Control & Prevention, CDC WONDER, http://wonder.cdc.gov/
Online Analytical Statistical Information System (OASIS). Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP). http://oasis.state.ga.us/

Figure 82. Pneumonia and influenza deaths by age group, Georgia, 2000-2013

During 2000-2013, most pneumonia and influenza-related deaths in Georgia occurred among Whites, but no significant differences were noted by gender (roughly half among males, half among females) (Figure 83).

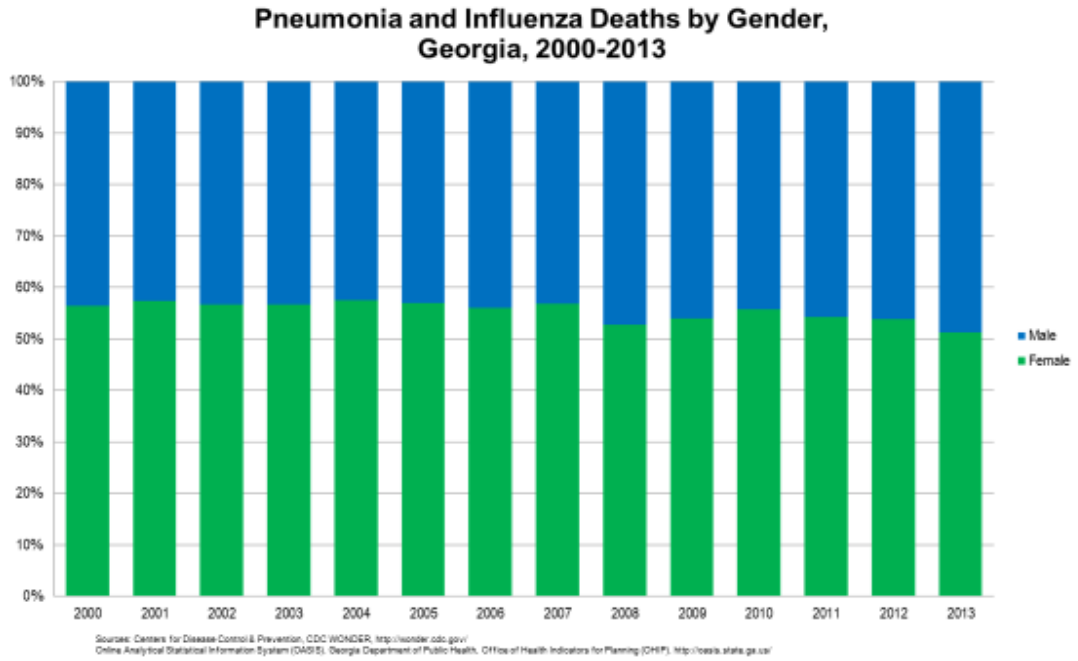


Figure 83. Pneumonia and influenza deaths by gender, Georgia, 2000-2013

INFLUENZA HOSPITALIZATIONS

CDC reports that about 200,000 people in the U.S. are hospitalized with flu every year. Georgia hospital discharge data showed some wide fluctuations in the numbers and rates of influenza-related hospitalizations during the period from 2000-2013 (Figure 84). This is because each influenza season varies depending on the predominant circulating influenza strain; strains like influenza A H3N2 are more likely to result in more hospitalizations, particularly among the elderly, thus we see higher numbers in H3N2 years like 2013. Also note that the number of hospitalizations was quite high during the influenza A H1N1 pandemic of 2009-2010.

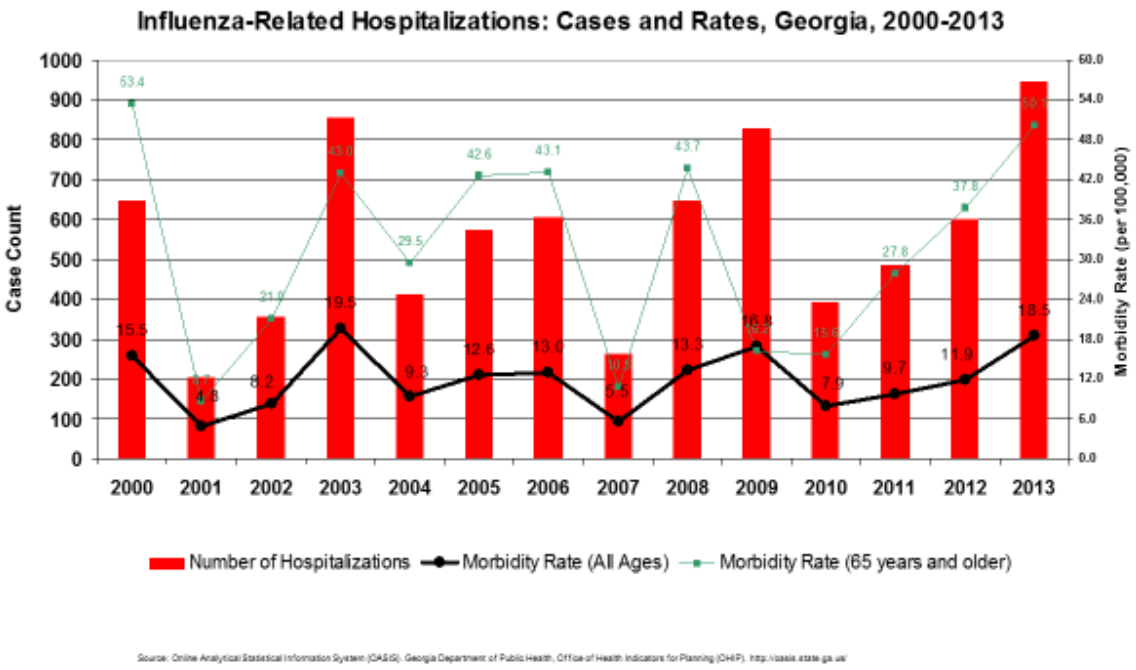


Figure 84. Influenza-related hospitalizations: cases and rates, Georgia, 2000-2013

CDC estimates that more than half of all flu-related hospitalizations occur in people age 65 and older (Figure 85). Information collected via Georgia hospital discharge data during 2000-2013 showed that the majority of flu-related hospitalizations in Georgia also occurred among those 65 years and older, although this varied somewhat from year to year depending on the predominant circulation flu strain (for example, the 2009 pandemic H1N1 year differed). This underscores the critical importance of all seniors receiving a seasonal influenza vaccine every year.

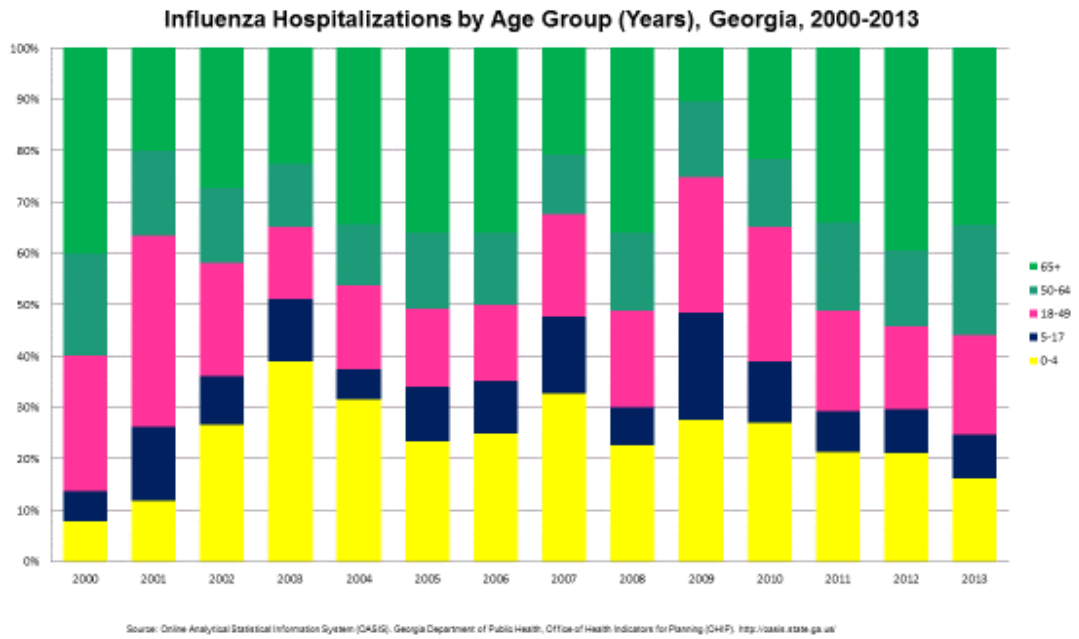


Figure 85. Influenza hospitalizations by age group (years), Georgia, 2000-2013

During 2000-2013, most influenza-related hospitalizations in Georgia occurred among Whites, but no significant differences were noted by gender (roughly half among males, half among females) (Figure 86).

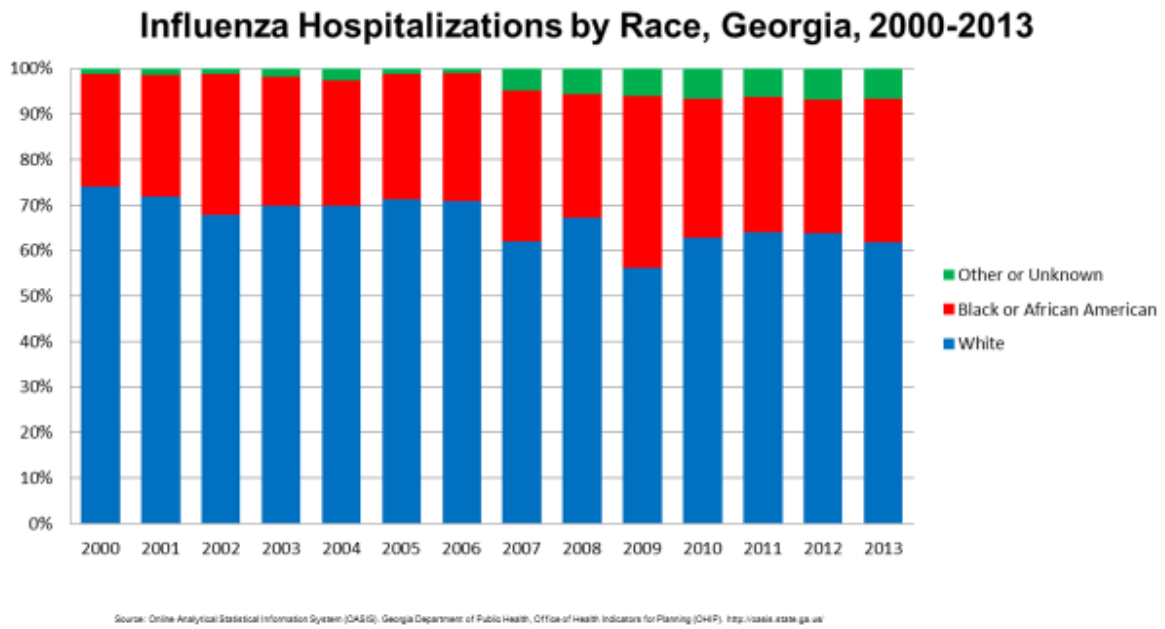


Figure 86. Influenza hospitalizations by race, Georgia, 2000-2013

PNEUMOCOCCAL DISEASE

Pneumococci account for up to 36 percent of adult community-acquired pneumonias. The case-fatality rate is 5 percent to 7 percent and may be much higher among elderly persons, underscoring the importance of pneumococcal vaccine among seniors (Figure 87).

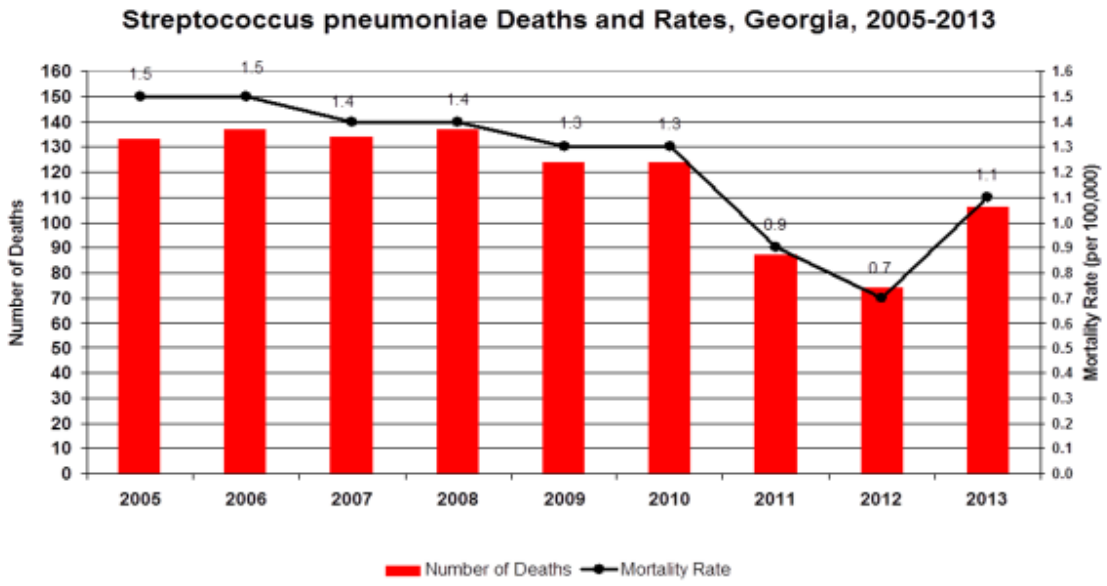
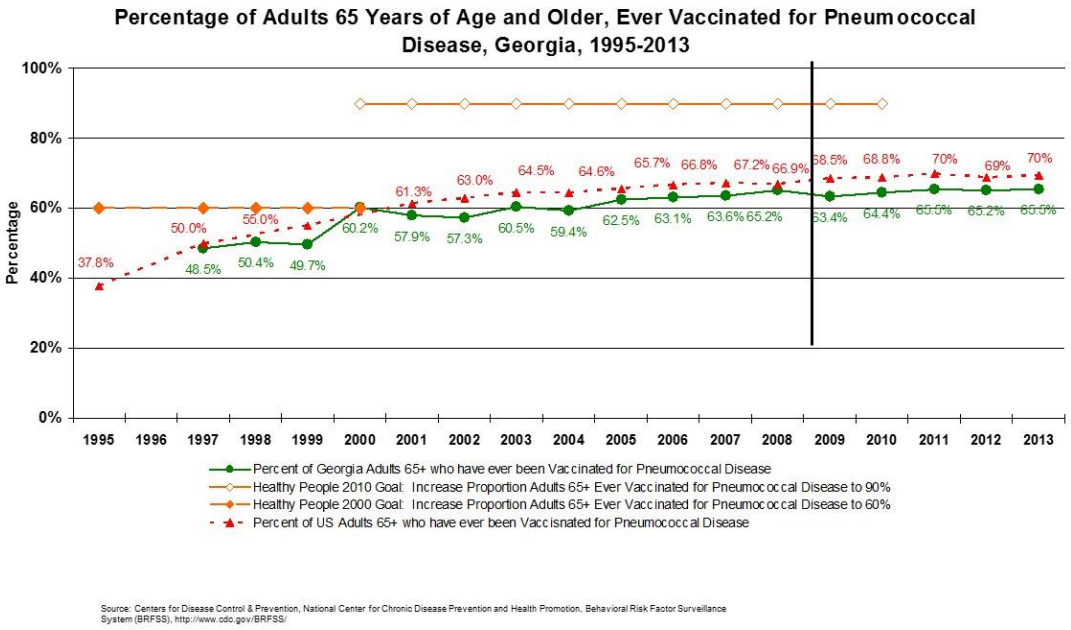


Figure 87. Streptococcus pneumoniae deaths and rates, Georgia, 2005-2013

A pneumococcal polysaccharide vaccine (PPV) targeting 23 of the most common serotypes of *S. pneumoniae* has been available since 1983. The Advisory Committee on Immunization Practices (ACIP) recommends that it be administered to all persons >65 years of age.

Data collected through the Georgia Behavioral Risk Factor Surveillance System (BRFSS) during the years 2000-2013 showed that about 60 percent to65 percent of Georgia adults 65 years of age and older ever vaccinated for pneumococcal disease proportions well under the national Healthy People 2010 and 2020 goals of having 90 percent of adults over 65 years vaccinated (Figure 88).



Source: Centers for Disease Control & Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS), http://www.cdc.gov/BRFSS/

Figure 88. Percentage of adults 65 years of age and older, ever vaccinated for pneumoccocal disease, Georgia, 1995-2013

SEASONAL INFLUENZA

Data collected through the Georgia Behavioral Risk Factor Surveillance System (BRFSS) during the years 2000-2013 showed that about 55 percent to 65 percent of Georgia adults 65 years of age and older were vaccinated against seasonal influenza in the last 12 months (Figure 89). These proportions are well under the national Healthy People 2010 and 2020 goals of having 90 percent of adults over 65 years vaccinated against flu every year.

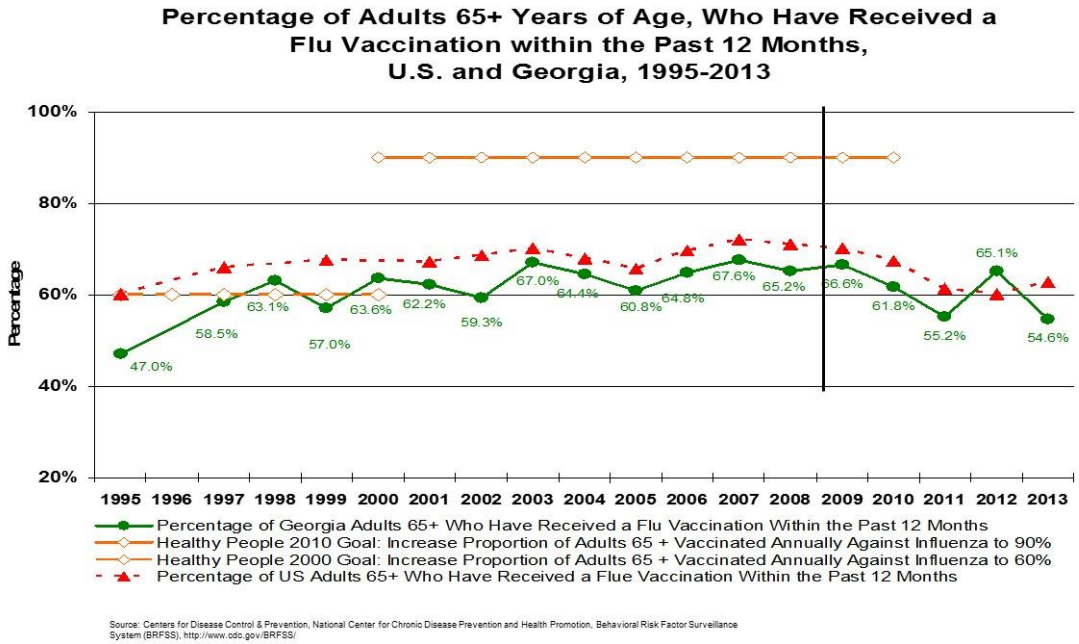


Figure 89. Percentage of adults 65+ years of age who have received a flu vaccination within the past 12 months, US and Georgia, 1995-2013

OTHER IMMUNIZATIONS

The goal of the Georgia Immunization Program is to reduce and ultimately eliminate the incidence of vaccine preventable diseases by working in conjunction with public and private health care providers throughout the state. Accomplishing this goal will require achieving and maintaining high vaccination coverage levels, improving vaccination strategies among under vaccinated populations, prompt reporting and thorough investigation of suspected cases and rapid institution of disease control measures.

The figure below shows the up-to-date (UTD) immunization rate, based on Advisory Committee for Immunization Practices (ACIP) recommendations, for the state of Georgia from the Georgia Immunization Study (GIS) (Figure 90). Two different rates were collected: one to see the UTD immunization rate by 24 months of age, and the other after the six-month data collection period, which included follow-ups with the parent or guardian. This period served as a reminder-recall to have kids caught up on their vaccines.

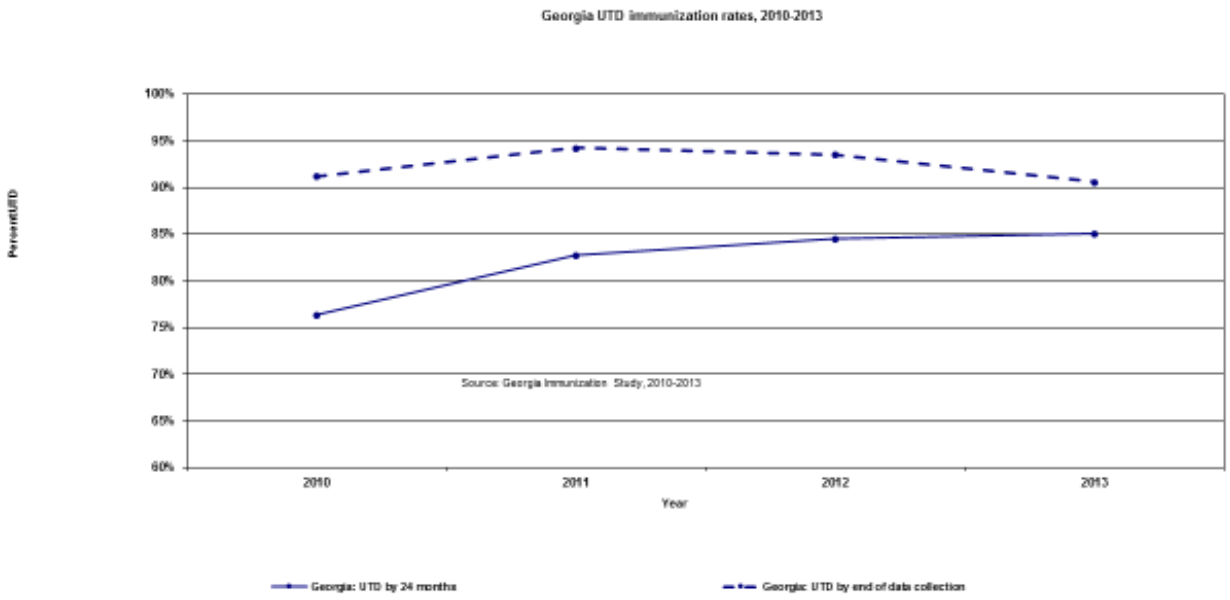


Figure 90. UTD immunization rates, Georgia, 2010-2013

The figures below show the frequency of reasons for incomplete immunizations by end of data collection. The top reasons for incomplete immunizations are shown to be 'Delayed by Parent' (41), 'Missed Appointments/Convenience Issue' (31) and parental Refusal' (24) of certain or all vaccines (Figure 91, Figure 92).

UTD Immunization Rate by 24 months of age, by Age/Ethnicity, 2013	
Race/Ethnicity (n=2489)	**UTD Rate by 24 months**
White, non-Hispanic (n=1004)	86.4%
White, Hispanic (n=96)	90.8%
Black (n=951)	81.4%
Unspecified, Hispanic (n=222)	90.5%
Asian (n=69)	91.3%
Multiracial (n=75)	86.7%

Source: Georgia Immunization Study, 2013

Figure 91. UTD Immunization rate by 24 months of age, by age and race/ethnicity, Georgia, 2013

Reasons for incomplete immunizations by end of study, 2013	
Reasons for Incomplete (n=233)	**# of people**
Delayed by Parent	32
Delayed by Physician	15
Medical Exemption	1
Missed Appts./Convenience Issue	78
Other	61
Parental Refusal	23
Religious Exemption	23
Temporary Vaccine Shortage	0

Source: Georgia Immunization Study, 2013

Figure 92. Reasons for incomplete UTD immunizations by end of study, Georgia, 2013

CHLAMYDIA

Georgia has a higher case rate of Chlamydia than the U.S. as a whole, and both rates continue to rise. (Figure 93). Chlamydia cases counts do not necessarily represent the prevalence of the disease, but instead reflect care seeking and/or the level of screening for the disease. It is a disease that often presents without immediate symptoms but can cause infertility over the long term, so that is why screening is recommended for all sexually active women under 25 years.

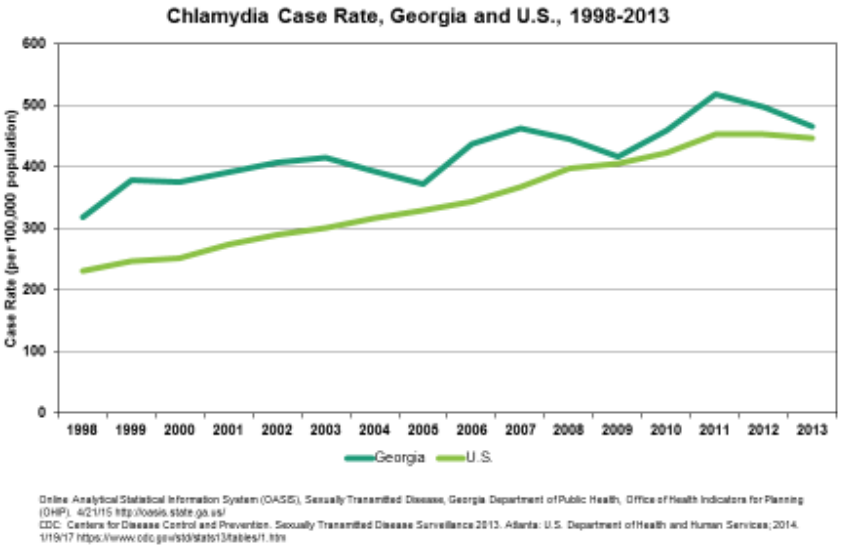


Figure 93. Chlamydia case rate, Georgia and US, 1998-2013

Females have a much higher rate of Chlamydia because of the screening recommendation that all sexually active women under 25 get screened annually for Chlamydia (Figure 94).

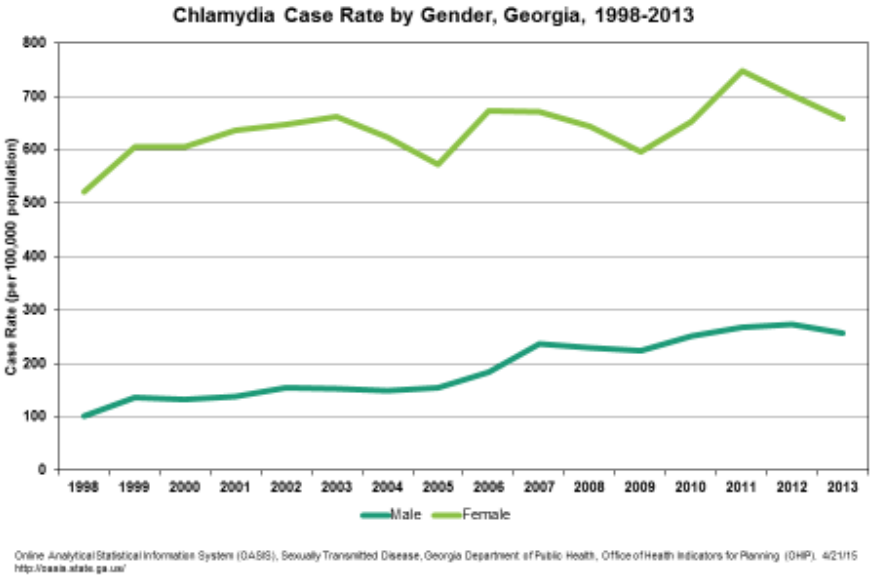


Figure 94. Chlamydia case rate by gender, Georgia, 1998-2013

Chlamydia appears to be mainly affecting black, non-Hispanic women, although there are many cases with unknown race/ethnicity because many of the cases are reported by labs and may not include this information (Figure 95).

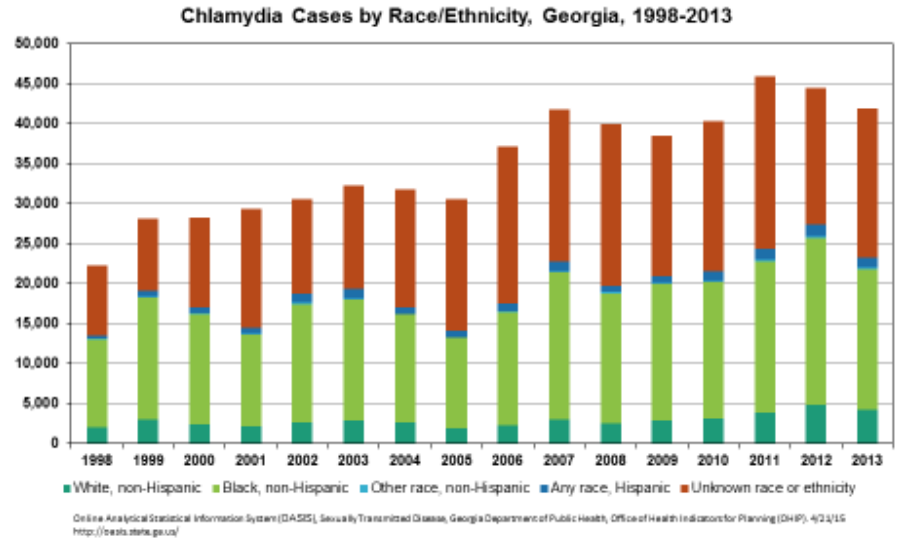


Figure 95. Chlamydia cases by race/ethnicity, Georgia, 1998-2013

SYPHILIS

Georgia has a syphilis rate significantly higher than the national average (Figure 96). Primary and secondary syphilis are the infectious stages of syphilis and are therefore the most important cases to interview and find and treat partners in order to prevent further transmission. After a low point in the 90s where elimination was discussed, there has been a steady rise in cases.

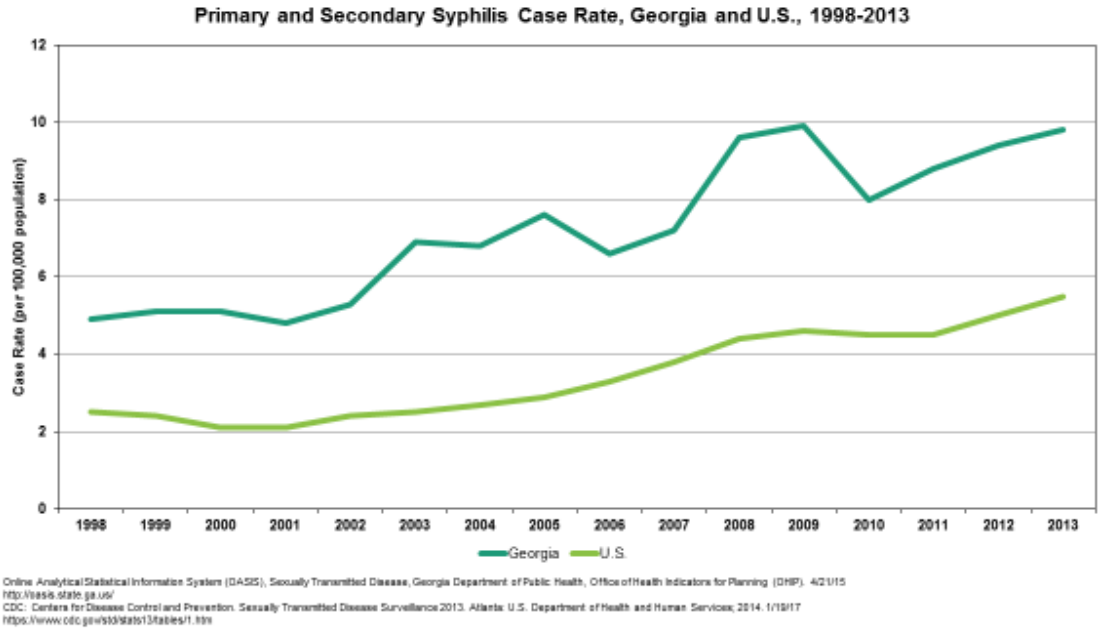


Figure 96. Primary and secondary syphilis case rate, Georgia and US, 1998-2013

Black, non-Hispanic males are most often diagnosed with primary and/or secondary syphilis (Figure 97).

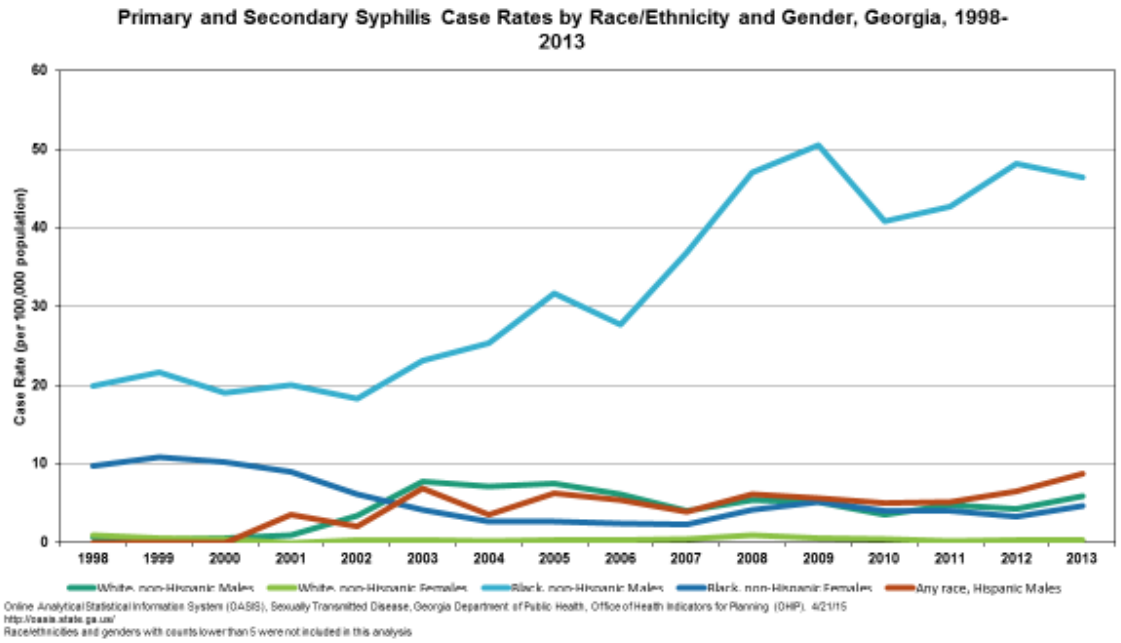


Figure 97. Primary and secondary syphilis case rate, by race/ethnicity, Georgia, 1998-2013

There was a low of congenital syphilis cases in Georgia during 2005, but then a rise through 2013 (Figure 98). There are between 2 to 21 cases in Georgia each year through this range. The case definition for congenital syphilis does not necessarily count if the child was born with symptoms of the disease, but instead measures if there was a missed opportunity that kept the mother from being treated correctly before the child's birth. CDC has estimated only four women have to be diagnosed with syphilis before there is a congenital case, so that is why women of reproductive age are one of the priorities for case follow-up.

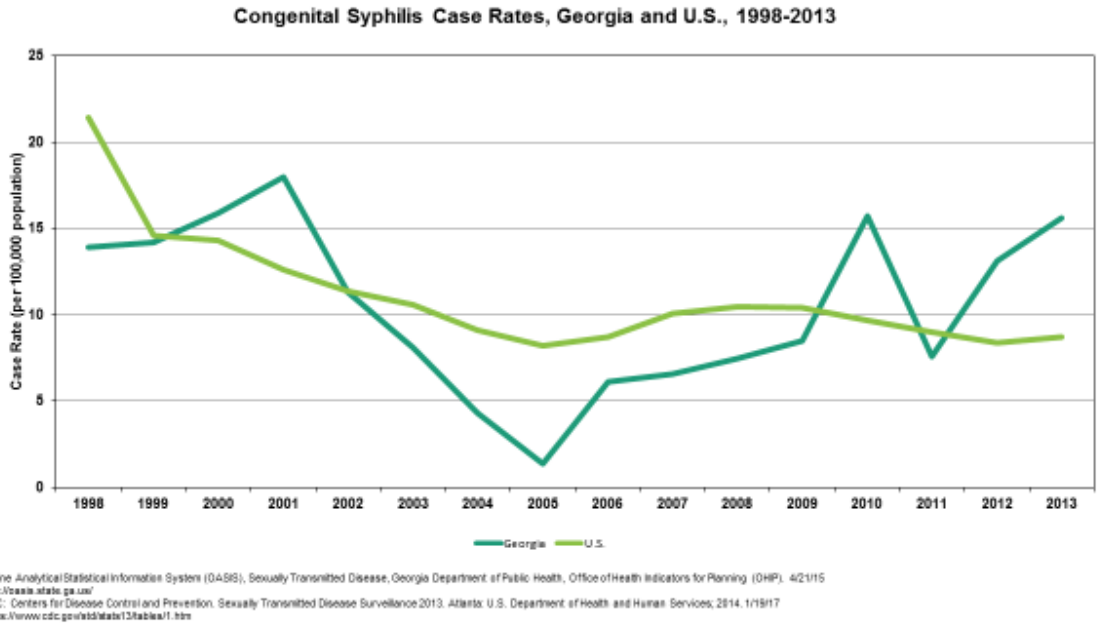


Figure 98. Congenital syphilis case rates, Georgia and US, 1998-2013

GONORRHEA

In Georgia, gonorrhea case rates have decreased over the past 15 years but they are still above the U.S. case rate (Figure 99). Gonorrhea case rates have been dropping over the past 15 years and are approaching the Healthy People 2020 Goals.

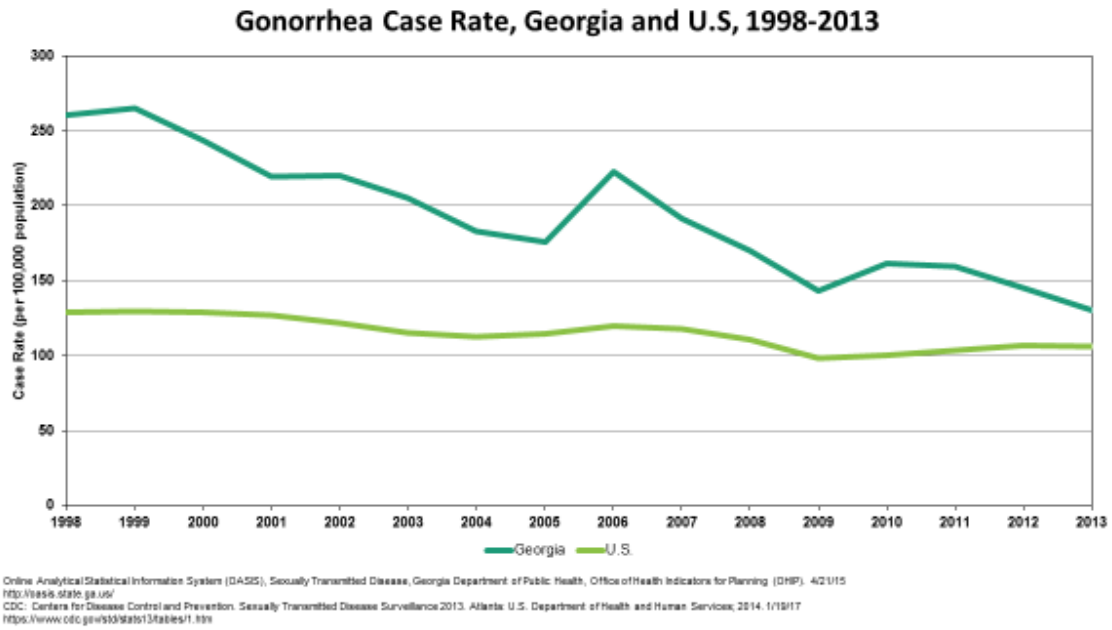


Figure 99. Gonorrhea case rate, Georgia and US, 1998-2013

Gonorrhea cases among males and females continue to decline, with rates slightly higher among females (Figure 100).

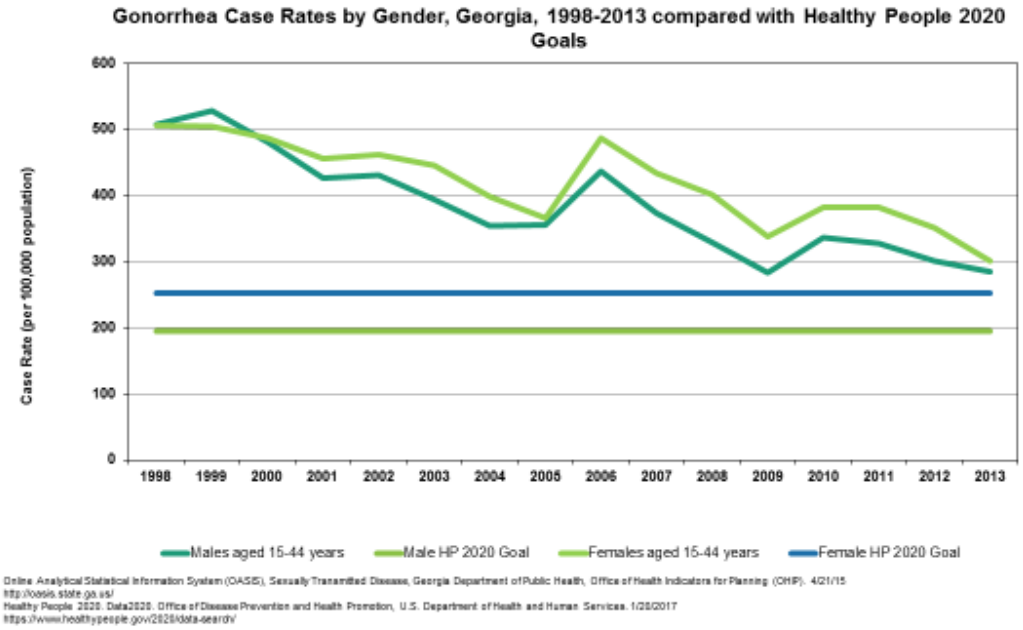


Figure 100. Gonorrhea case rates by gender, Georgia, 1998-2013, compared with Healthy People 2020 Goals

Gonorrhea primarily affects those age 15 to 24 years (Figure 101). There are new screening recommendations to ensure sexually active women under 25 years old are screened annually for gonorrhea.

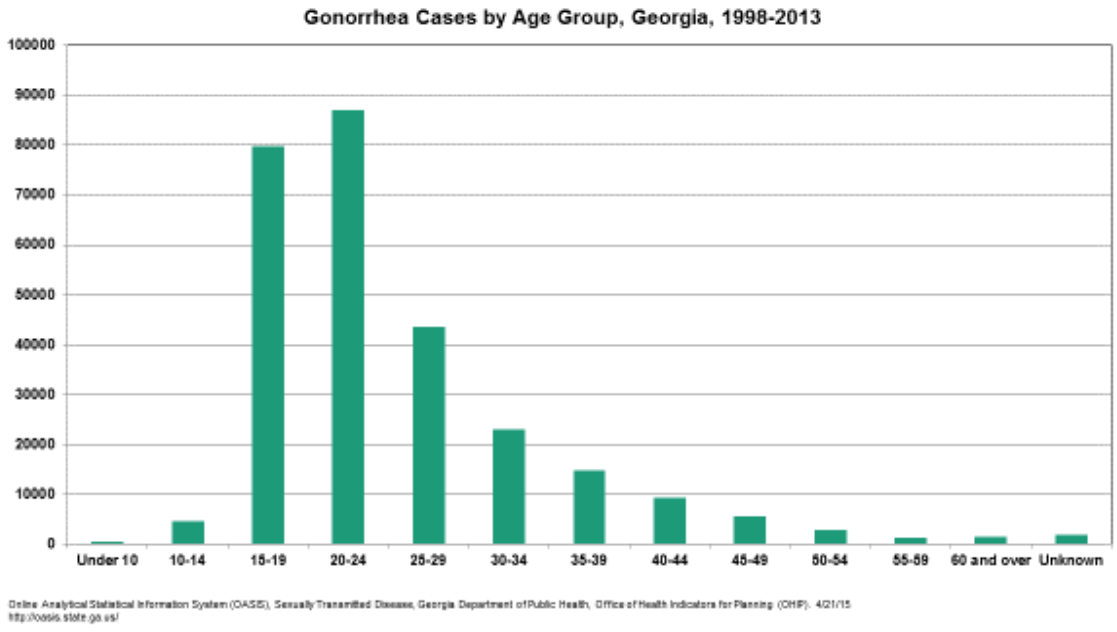


Figure 101. Gonorrhea cases by age group, Georgia, 1998-2013

HIV

The HIV Prevention Program coordinates the Statewide HIV Prevention Planning Group, develops and implements the Georgia HIV Prevention Plan, coordinates the HIV testing program and data reporting for the state, and provides capacity building and training for community partners and public health staff.

New HIV diagnoses include all new diagnoses, including when the initial diagnosis is at the time of AIDS. New diagnoses have slightly declined during this time period (Figure 102). In contrast, the number of persons living with HIV has increased steadily. This increase in prevalence is the result of effective therapies which have greatly extended the life expectancy of persons with HIV.

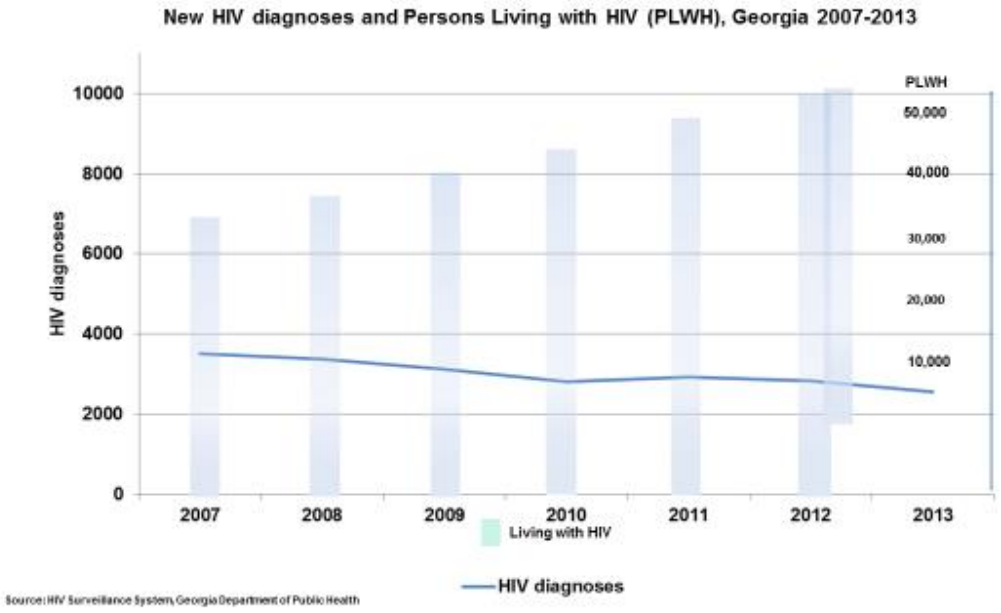


Figure 102. New HIV diagnoses and persons living with HIV, Georgia, 2007-2013

There are substantial disparities in new diagnoses of HIV in 2013 in Georgia by race/ethnicity (Figure 103. These disparities are longstanding.

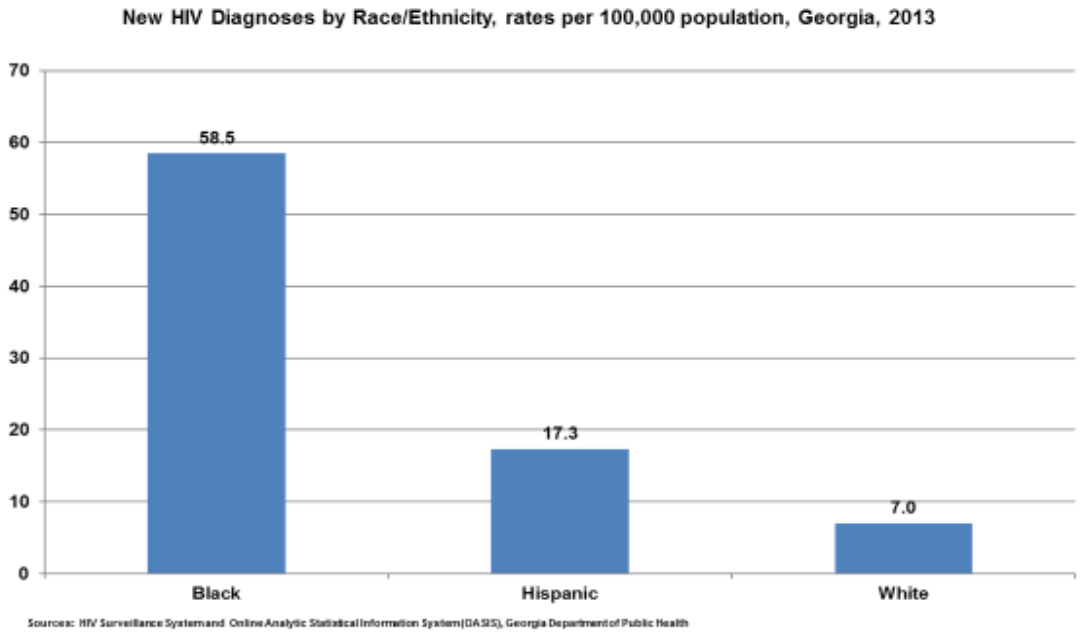
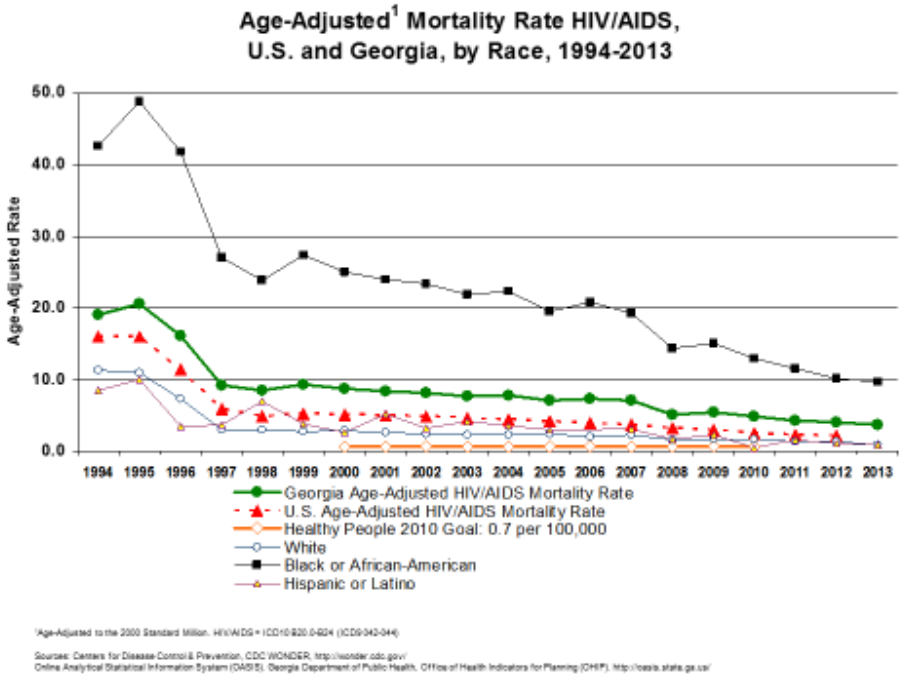


Figure 103. Georgia, 2013. New HIV diagnoses rates by race/ethnicity,

The HIV/AIDS mortality rate in Georgia is higher than the U.S. rate, reflecting the higher rate of HIV in Georgia compared to the nation as a whole (Figure 104). The graph also highlights substantial disparities by race/ethnicity.



[1]Age-Adjusted to the 2000 Standard Million. HIV/AIDS = ICD10:B20.0-B24 (ICD9:042-044)

Sources: Centers for Disease Control & Prevention, CDC WONDER, http://wonder.cdc.gov/
Online Analytical Statistical Information System (OASIS), Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP), http://oasis.state.ga.us/

Figure 104. Age-adjusted mortality rate HIV/AIDS, by race, US and Georgia, 1994-2013

LEAD POISONING PREVENTION

In the last 40 years, the blood lead levels of children have dropped significantly in the U.S. and in Georgia due to prevention efforts of public health agencies (Figure 105). However, research shows there is no safe blood lead level in children and low level chronic exposure results in negative health outcome for children.

According to the Centers for Disease Control (CDC), over 535,000 children ages 1 to 5, in the United States have elevated blood lead levels (EBL) greater than CDC reference level of 5 micrograms per deciliter (ug/dL).

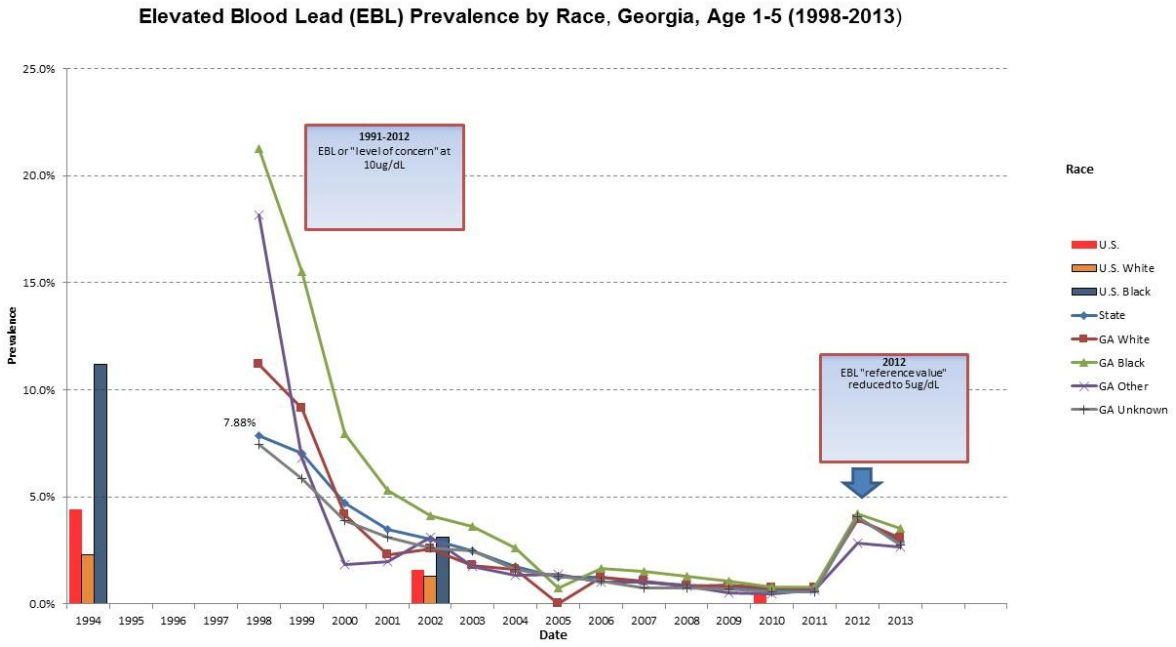


Figure 105. Elevated Blood Lead prevalence by race, ages 1-5, Georgia, 1998-2013

To ensure the highest risk children are targeted for prevention efforts, the GHHLPPP program utilizes census and Medicaid data with GIS technology to identify and target high risk areas of the state, generally pre-1978 rental housing, where children are potentially being exposed to lead. This important step protects the health of many children by allowing DPH to target lead prevention activities for the highest risk children.

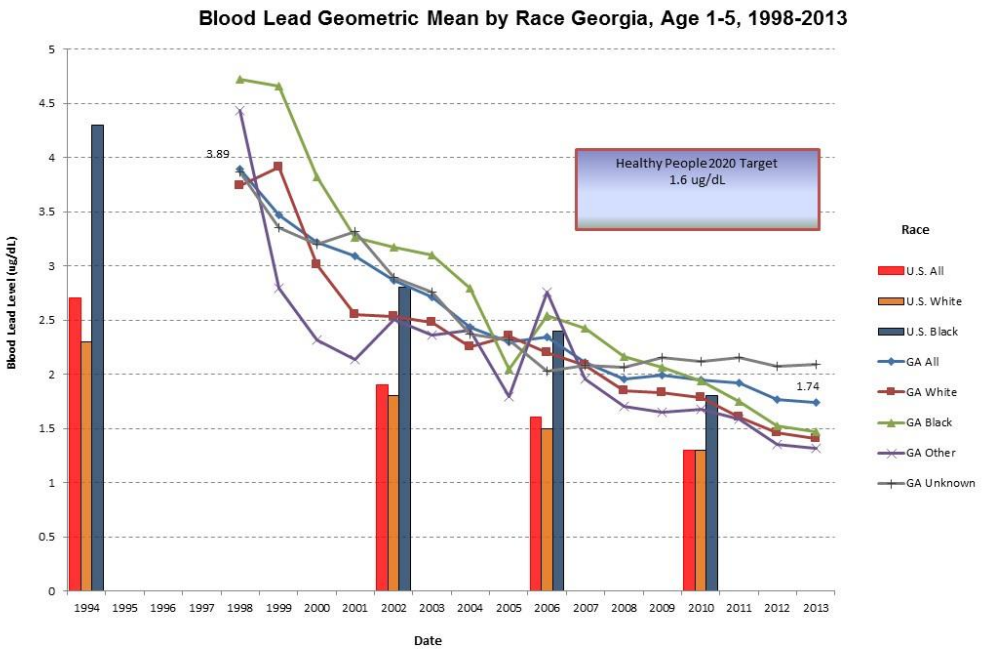


Figure 106. Blood lead geometric mean for children ages 1-5, Georgia, 1998-2013

The graphs pictured here demonstrate that Georgia's elevated blood lead prevalence and geometric mean have decreased over time compared to national data (Figure 106). While this is considered a success, there is continued focus to eliminate lead poisoning in Georgia.

The mission of the Georgia Healthy Homes and Lead Poisoning Prevention Program (GHHLPPP), in keeping with the proposed Healthy People 2020 objectives, is to eliminate childhood lead poisoning in Georgia. We strive to reach this goal by informing the public about housing hazards that can cause unsafe or unhealthy environments; prevent injury and illness through monitoring, education, assessment and provision of direct services; and protect all generations of Georgians by ensuring that each home is safe and healthy. Since 1994, the GHHLPPP has partnered with the 18 public health districts to ensure case management of children with elevated blood lead levels (EBL), provide education and training, and assign cases to EHS certified as Lead Inspector/Risk Assessors for environmental inspections and risk assessments.

ARBOVIRAL DISEASE SURVEILLANCE IN GEORGIA

Three arborviral diseases are currently found in the U.S. and endemic in Georgia: LaCrosse Encephalitis, Eastern Equine Encephalitis and West Nile virus (Figure 107).

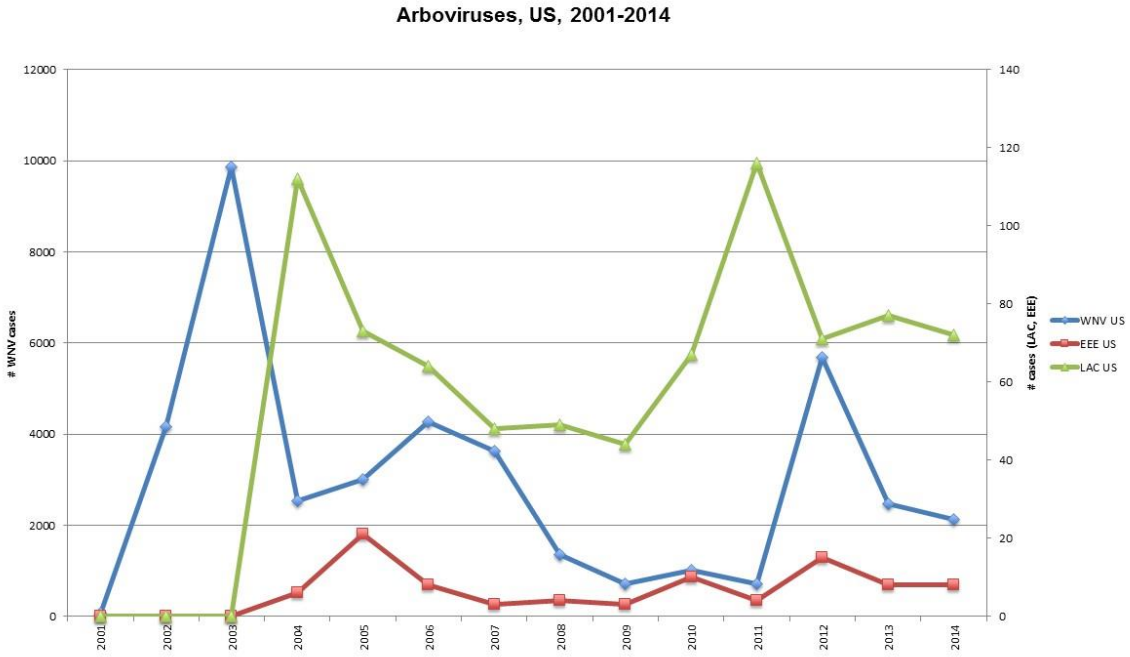


Figure 107. Arboviruses, US, 2001-2014

Eastern equine encephalitis virus (EEE) is transmitted to humans by the bite of any number of different infected mosquitoes. This virus is maintained in birds and is endemic is South Georgia. The primary vector for La Crosse encephalitis virus (LAC) is *Ochlerotatus triseriatus*, the treehole mosquito. This virus is maintained in small mammals such as chipmunks and squirrels.

West Nile virus (WNV) is a mosquito-borne viral pathogen that was introduced into the United States in 1999. Within four years following its initial detection in New York, WNV was detected in states from the East and West coasts as well as in Mexico and Canada. The presence of WNV in Georgia was first confirmed in July 2001 when an American crow from Lowndes County tested positive for the virus. West Nile virus is maintained in birds and the primary mosquito vector in Georgia is *Culex quinquefasciatus*. In 2014, Georgia reported 13 cases of WNV, with 1 death. There were no viremic blood donors reported.

The average age of cases was 53 years (range 9-86) (Figure 108). The average age of those with WNV neurologic illness was 49 years (range 9-76). Nine (69.2 percent) of the 13 cases were male. The majority of cases were reported in July, August and September. No horses tested positive for WNV in 2014, but 7 horses tested positive for EEE. No birds were reported as being submitted for testing in 2014. A total of 5,038 pools of mosquitoes (107967 individuals) were sent for testing with results reported to the DPH. Mosquitoes found WNV+ (56 pools) were *Aedes albopictus* and Culex *quinquefasciatus*, as well as unidentified *Culex* spp; the mosquito species most commonly found positive (96.4 percent) was *Cx quinquefasciatus*. In addition to WNV, 2 pools were found to be EEE+ (Lowndes & Chatham counties).

The following trends demonstrate surveillance activities over time.

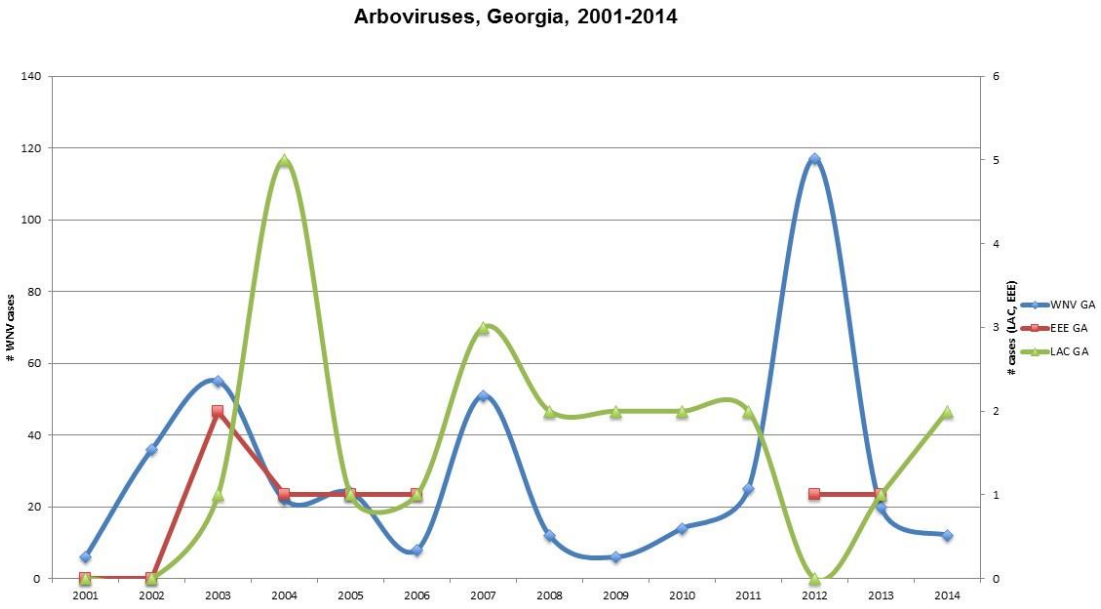


Figure 108. Arboviruses, Georgia, 2001-2014

FOOD SERVICE PROGRAM

Foodborne illness in the United States is a major cause of personal distress, preventable death and avoidable economic burden. CDC estimates that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 people die of foodborne diseases. Food can become contaminated by bacteria, viruses, chemicals or physical objects and with the threat of terrorism, it is more important than ever for public health to educate and work with operators to ensure the safety of our food supply.

Georgia requires all food service establishments to be permitted and inspected by county health departments utilizing the Department of Public Health Rules and Regulations for Food Service Establishments. Environmental health specialists (EHS) are responsible for conducting routine risk-based inspections, providing food safety education, investigating foodborne related complaints and illnesses, and enforcing the DPH Rules and Regulations for food service establishments for more than 30,000 food service establishments in the state.

CDC has designated five broad categories of risk factors contributing to foodborne-related outbreaks: improper holding temperatures; inadequate cooking; Food from unsafe sources; poor personal hygiene, and; contaminated equipment. These risk factors have been identified by CDC through epidemiological data as the most prevalent contributing factors of foodborne illness or injury. Georgia continues to see violations (Figure 109).

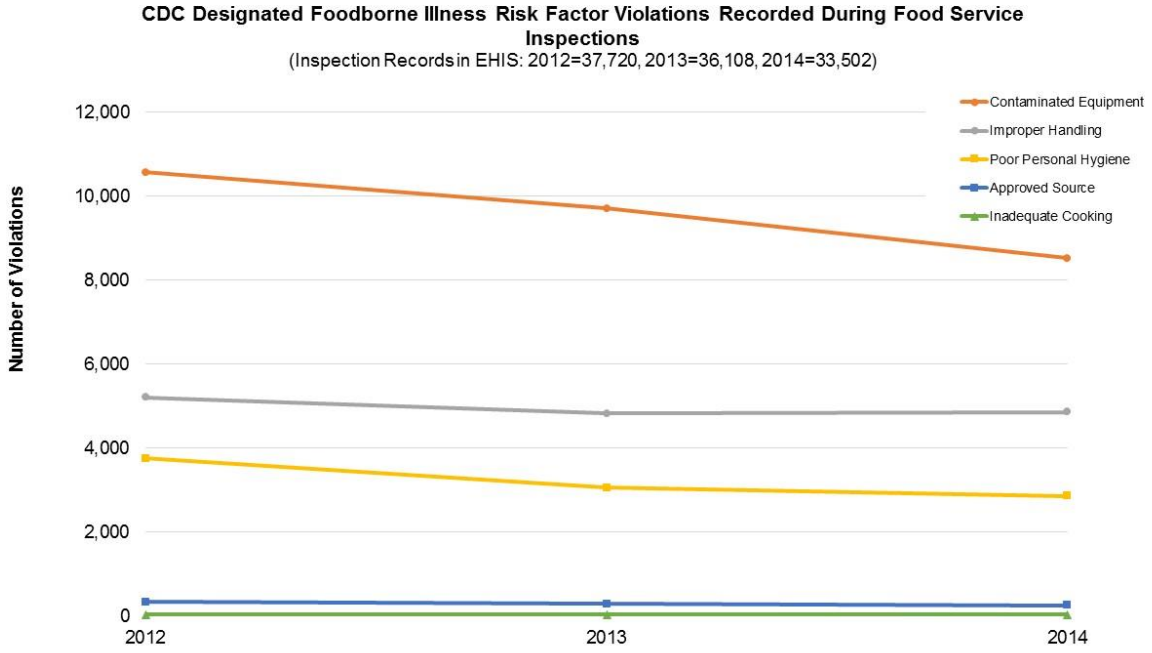


Figure 109. CDC designated foodborne illness risk factor violations recorded during food service inspections, Georgia, 2012-2014

ON-SITE SEWAGE MANAGEMENT SYSTEM PROGRAM

According to the CDC, one of the top 10 major public health achievements in this country is the control of infectious diseases from management of wastewater. Georgia requires all on-site sewage management systems (OSSM) to be permitted and inspected by the local county health department utilizing the Department of Public Health Rules and Regulations for On-site Sewage Management Systems. The mission of the OSSM system program is to minimize health problems related to untreated human sewage by—informing the public of potential health hazards associated with on-site septic systems; preventing illness through education, monitoring, assessment and enforcement; and protecting the public by managing science based standards and ensuring a competent workforce. It is estimated there are over 1.5 million OSSM systems in the state and management of these systems is crucial because properly functioning OSSM systems protect state waters.

When OSSM systems fail within the first five years, it is generally recognized that the problems are related to poor installation, lack of maintenance, inappropriate system type, improper site evaluations and/or system abuse. It is important to know the age of systems at the time of failure and to identify the potential causes of failure, so that proper repairs can be made.

The Georgia program established a performance metric to measure the percent of OSSM system failures age five years or less with a target of no more than 1 percent of system failure. Preventing system failure within this age range will help protect public health and save the homeowner time and costly repairs of their OSSM system. The figure below demonstrates that from 2008-2015, approximately 2 percent of systems failed within the first five years and Georgia's overall estimated failure rate is approximately 1.7 percent as reported to the Environmental Protection Agency (EPA) (Figure 110) This is significantly less than national failure rates of 10-20 percent as reported by EPA.

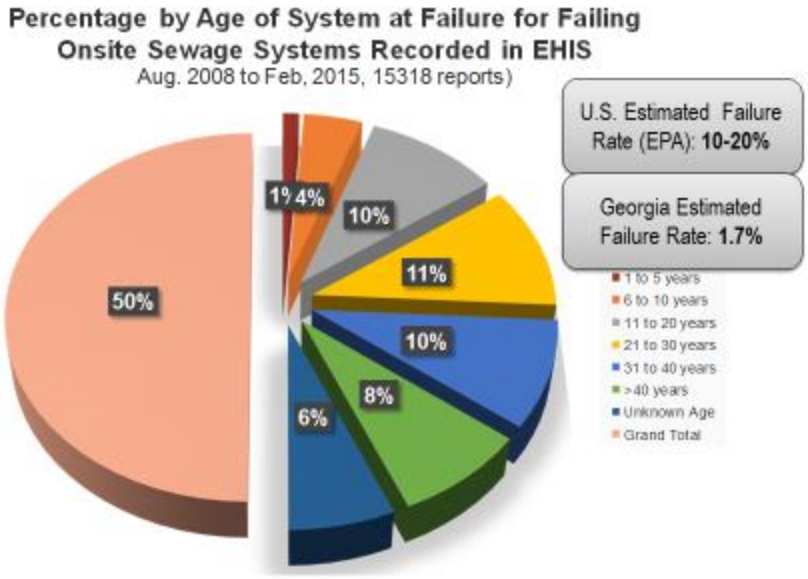


Figure 110. Percent by age of system at failure for failing on-site sewage systems recorded in EHIS, Georgia, 2008-2015

PUBLIC POOL, SPA, AND RECREATIONAL WATER PARK PROGRAM

The mission of the Public Pool program is to minimize illnesses and injuries by—informing the public of recreational water-related hazards; preventing waterborne illness and injury through monitoring, assessments and education; and protecting the public from recreational waterborne illness and injury risks with contaminated or hazardous conditions in or around swimming pools. According to the United States Census Bureau, swimming is the third most popular U.S. sport or exercise activity, with over 314 million visits to recreational venues annually. Swimming provides fun and exercise to all ages, but swimming pools and spas must remain safe and clean for all to enjoy. All public pools in Georgia are permitted and inspected by the local county health departments utilizing a combination of Georgia Department of Public Health or local health department rules and regulations.

The local county health department closes a public pool when there are imminent or substantial health hazards found during an inspection. The act of closing a pool is an enforcement option that is not taken lightly by an EHS. A permit suspension or voluntary closure immediately protects the health and safety of any resident, tourist or guest from exposure to the hazard or health risk. Violations that may result in a substantial health hazard such as an illness, injury or death are identified as critical public health risk factors. Violation of these risk factors requires immediate action to be taken to reduce the hazard.

From 2012-2014, operators not maintaining an adequate amount of disinfectant in the pool water is the most commonly cited critical violation (Figure 111). Disinfectants kill and reduce disease causing microorganisms likes viruses, bacteria and parasites in the pool water.

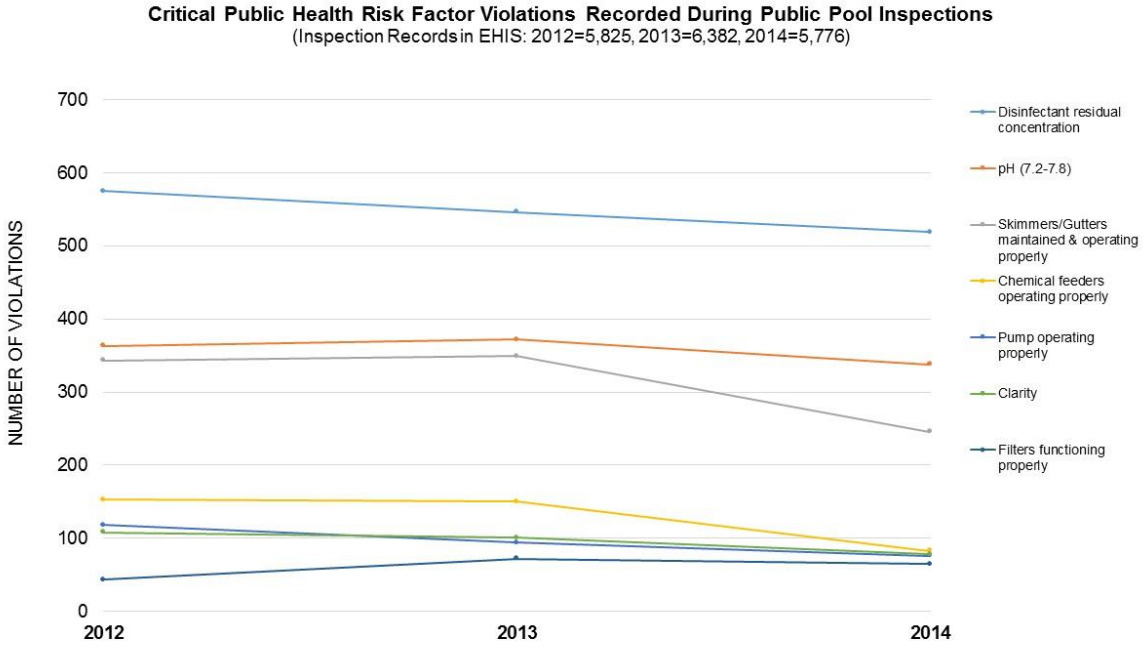


Figure 111. Critical public health risk factor violations recorded during public pool inspections, Georgia, 2012-2014

TOURIST ACCOMMODATION PROGRAM

The mission of the DPH Tourist Accommodation program is to minimize illnesses and injuries associated with unsanitary or hazardous conditions by: Informing the public of lodging-related hazards; Preventing illness and injury through monitoring, assessments and education; and protecting the public from risk associated with food-waterborne illness and unsanitary conditions. Tourism in Georgia is the second leading industry in the state, earning $34 billion in revenue annually. Millions of people visit our state for its national and state parks, urban centers, historic sites, beautiful mountains and scenic coast.

Georgia requires all tourist accommodations to obtain a permit and post inspection reports completed by the local county health department Environmental Health Specialists. The Department of Public Health (DPH) develops and maintains rules and regulations to ensure that the health and safety of its citizens and visitors are protected during their stay in a facility. Environmental Health Specialists inspect Tourist Accommodations a minimum of two times a year focusing on risk factors that contribute to illness and injury. Local EHS assign a grade and identify corrective actions necessary for compliance with the Department of Public Health's rules and regulations. This inspection gives the public and operator an indication of the overall condition of the hotel, campground or bed-and-breakfast inn.

In 2014, DPH updated its tourist rules to focus on risk factors that contribute to illness and injury and extensive training was provided to all EH staff. This may explain the significant changes in critical and housing public health risk factors cited in the following graph. The below figure demonstrates the risk factors cited from 2012-2014 (Figure 112).

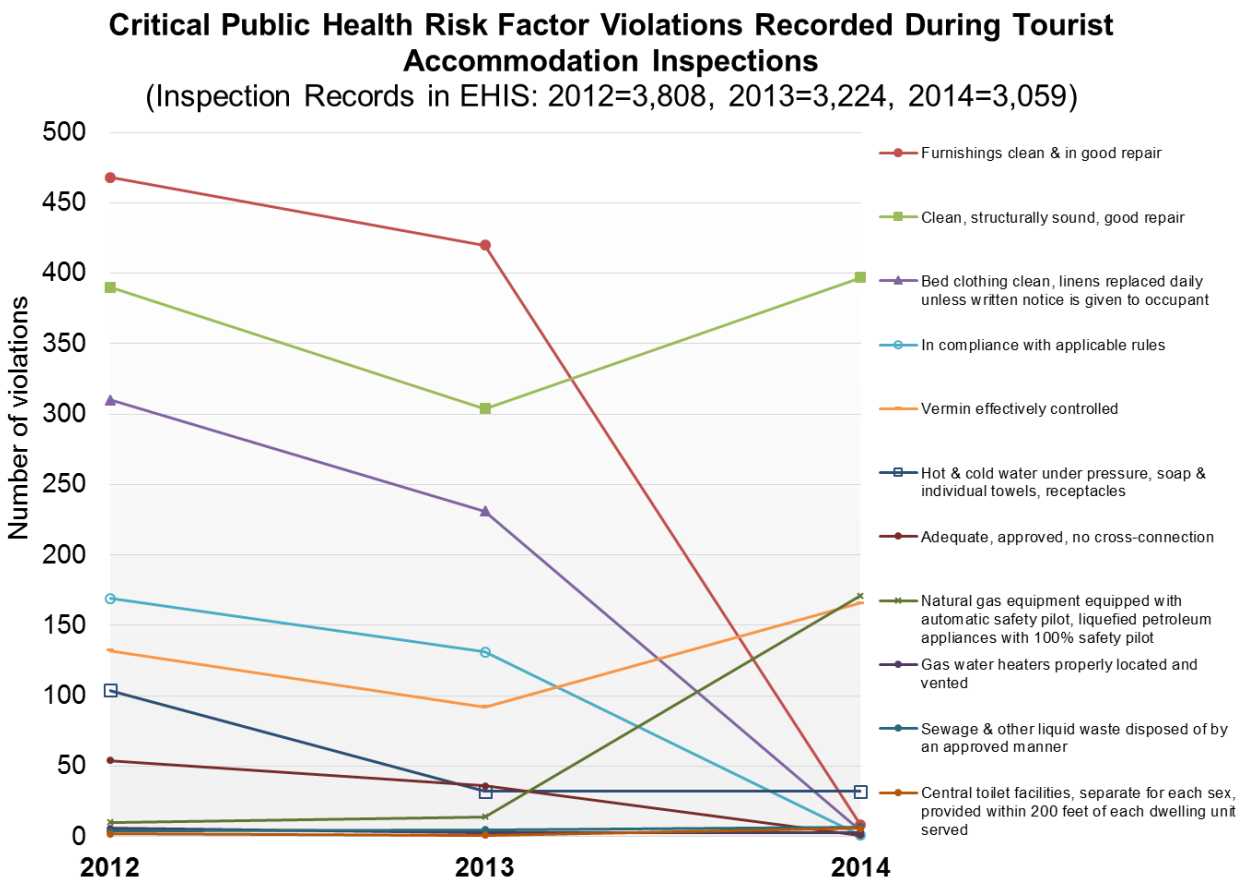


Figure 112. Critical public health risk factor violations recorded during tourist accommodation inspections, Georgia, 2012-2014

LEADING CAUSES OF INJURY

The mission of the Georgia Injury Prevention Program is to prevent injuries by empowering state and local coalitions through the provision of data, training and leadership, and the leveraging of resources for prevention programs. There are intentional and unintentional mechanisms of injury across the life span. At this time the work of IPP, which is largely funded through grants, is focused on unintentional injury.

Motor Vehicle Crashes (MVC) have traditionally lead all types of injury, both intentional and unintentional, however in many states Prescription Drug Overdose (unintentional) and suicide/assault (intentional) are competing for the top spots. Prescription Drug Overdose is an emerging issue in the field of injury prevention. According to CDC, the amount of pain killers prescribed has more than quadrupled since 1999. For the first time, an injury topic is overtaking motor vehicle deaths (Figure 113). This has not happened in 50 years. Georgia is working with partners on more effective pain management practices, PDMP, and other policies to reduce deaths from prescription drug overdose.

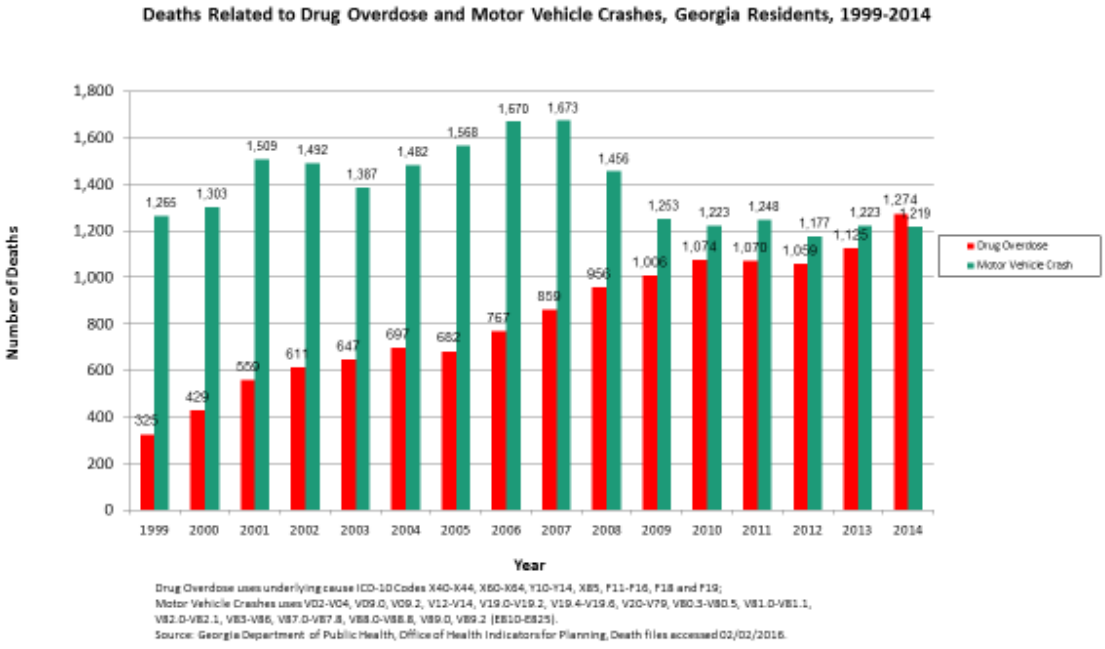


Figure 113. Deaths related to drug overdose and motor vehicle crashes, Georgia residents, 1999-2014

MOTOR VEHICLE CRASHES AND CHILDREN

Fifty children ages 0-10 years die annually in Georgia and over 1,700 are injured each year (Figure 114). In the 5-7 years age group, 46 percent were riding in a seat belt during fatal crash. For children under age 10 who died, 52 percent were riding in the front seat and 73 percent of those were between the ages of 5-7 years.

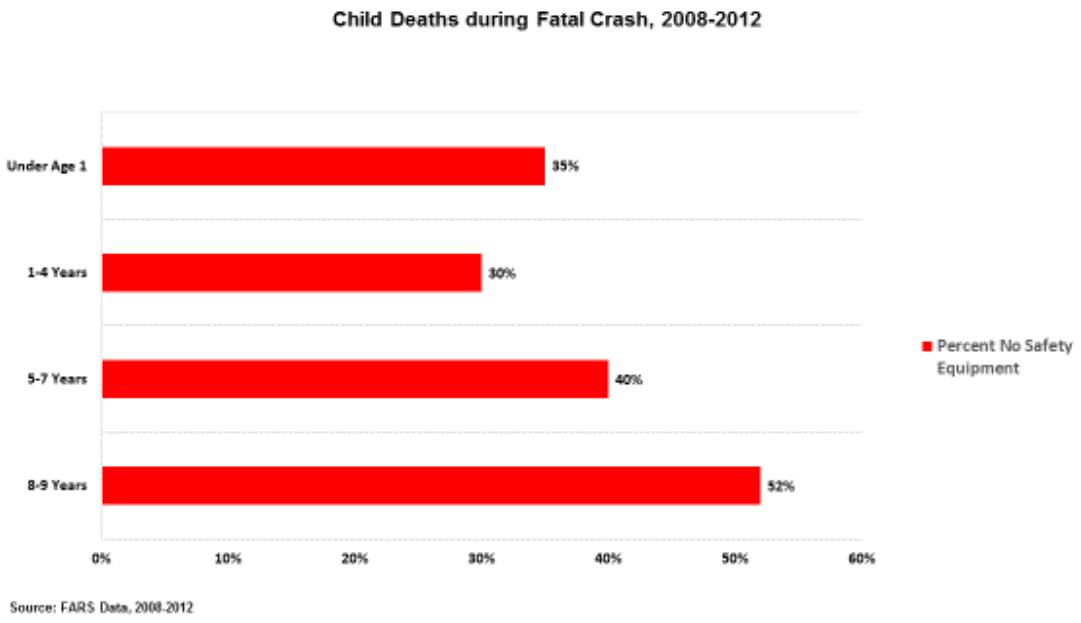


Figure 114. Child deaths during fatal crash, 2008-2012

The data suggest that children are not being properly restrained (e.g., moving to a seat belt from a booster too early) (Figure 115). Specific to child passenger safety and prevention of injuries, CDC recommends the following findings to assist communities in developing prevention programming:

- Use of child safety seats
- Laws mandating use of child safety seats
- Communitywide and law enforcement campaigns
- Distribution programs with educational components on the importance of correct use

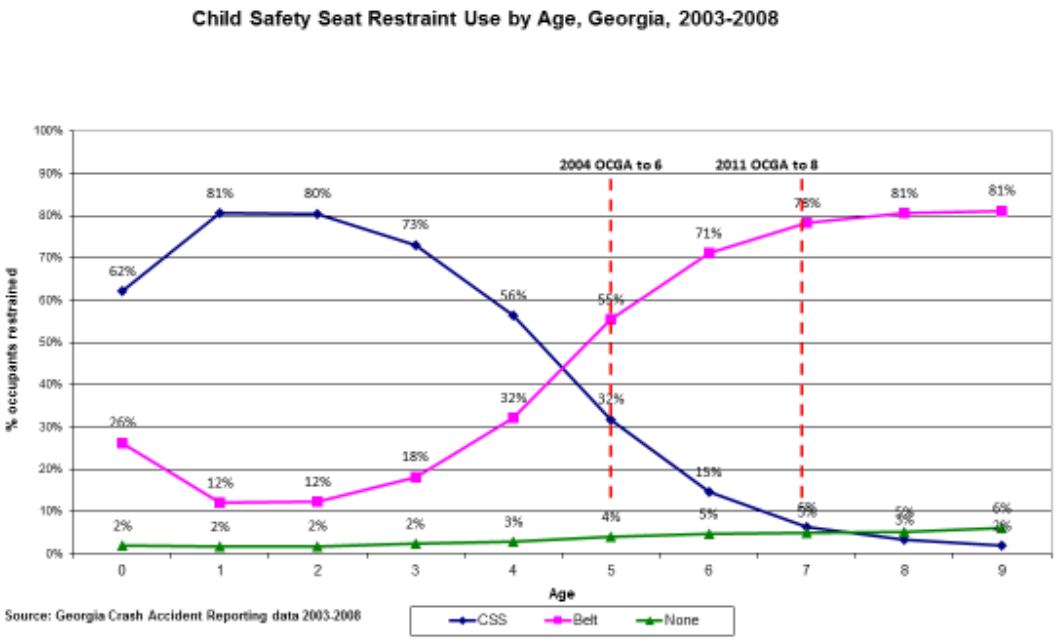


Figure 115. Child safety seat restraint use by age, Georgia, 2003-2008

OLDER DRIVER CRASHES

From 2009-2013, the death rate resulting from motor vehicle crashes was highest among Georgians age 65 years and older followed by youth and young adults ages15-24 years (Figure 116). Overall, males were more likely than females to die from motor vehicle crashes.

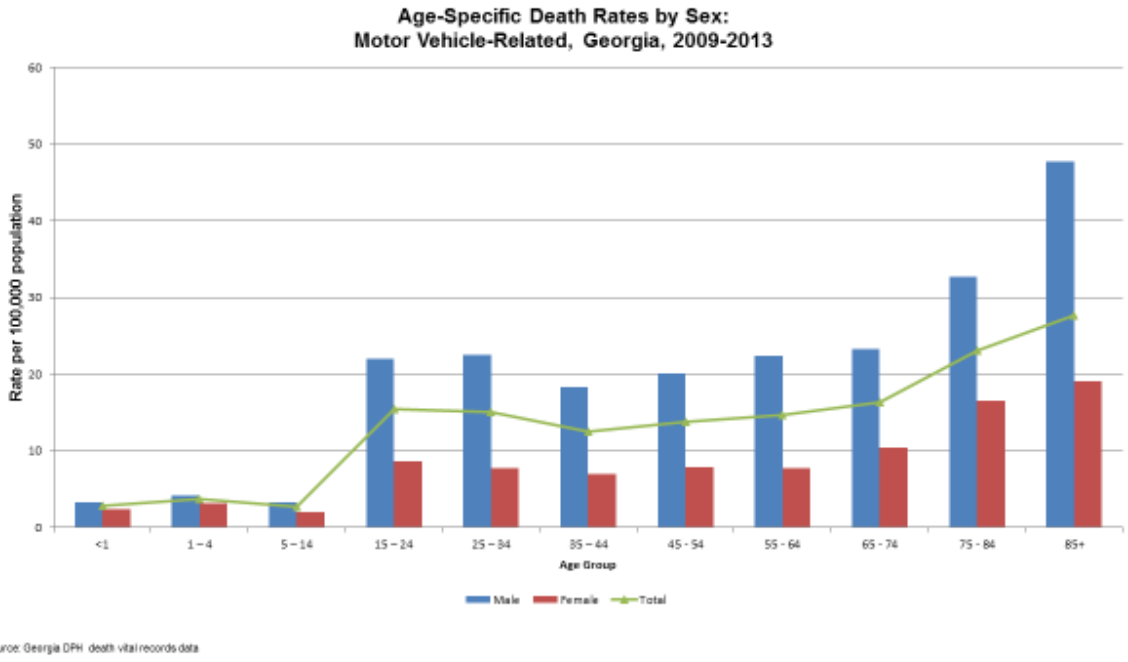


Figure 116. Age-specific death rates by sex, motor vehicle related, Georgia, 2009-2013

From 2009-2013, the rates of hospitalization resulting from motor vehicle crashes were highest among Georgians age 85 and older, followed by rates among young adults ages 15-24 years. The hospitalization rate from motor vehicle crashes was higher among males (116.1 per 100,000 population) than among females (22.8 per 100,000 population) for all age groups (Figure 117). Persons of other races (114.0 per 100,000 population) were more likely to be hospitalized than Whites and Blacks. The lack of proper seat belt training among other races could be a risk factor.

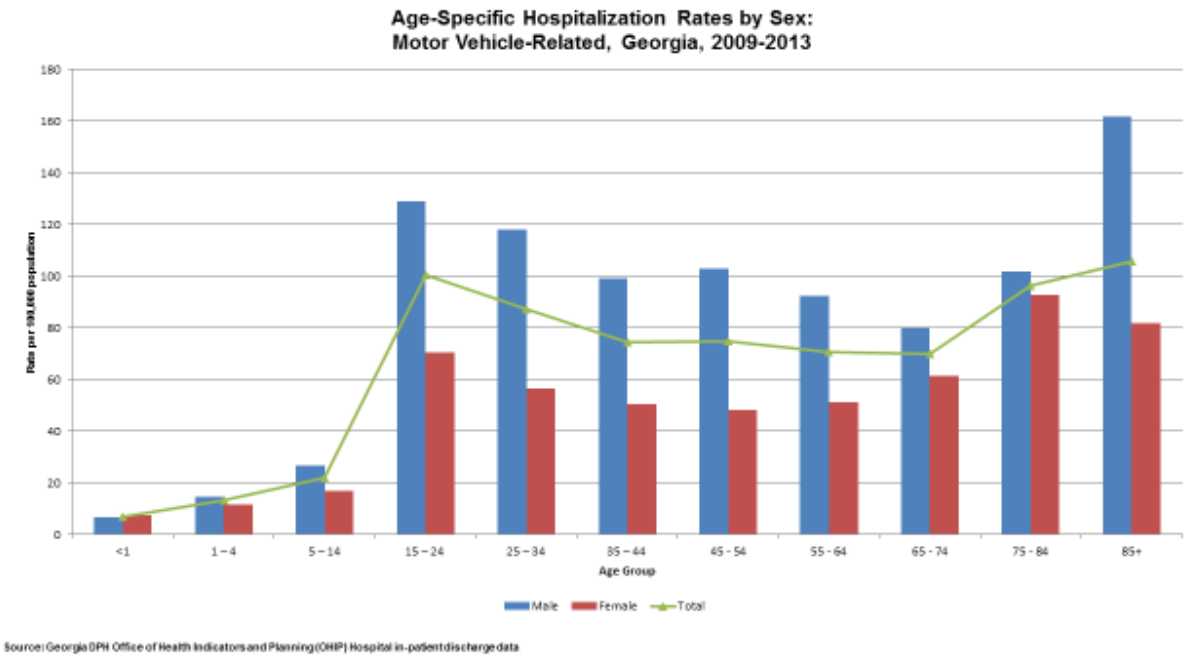


Figure 117. Age-specific hospitalization rates by sex, motor vehicle-related, Georgia, 2009-2013

Nationwide, older drivers tend to crash less. Older adults drive familiar routes and restrict their driving to daylight hours. They might also take a longer route to avoid a left turn. Georgia's Older Driver Task Force was convened in 1987 in response to the GOHS Strategic Highway Safety Plan. This task force has led efforts to improve outcomes by training engineers in improved traffic design, training physicians to talk to their elderly patients and their families about driving safety, and raising awareness about safety. In 2008, Georgia was one of only seven states selected for the National Center on Senior Transportation Award.

SLEEP-RELATED INFANT DEATH

Sudden infant death syndrome (SIDS) rates declined considerably from 130.3 deaths per 100,000 live births in 1990 to 39.7 deaths per 100,000 live births in 2013 (Figure 118). Most of this drop occurred between 1992 and 2001. Since 2001, there has been little change. Accidental suffocation and strangulation in bed (ASSB) mortality rates remained unchanged until the late 1990s. Rates started to increase beginning in 1998 and reached the highest rate at 20.8 deaths per 100,000 live births in 2013.

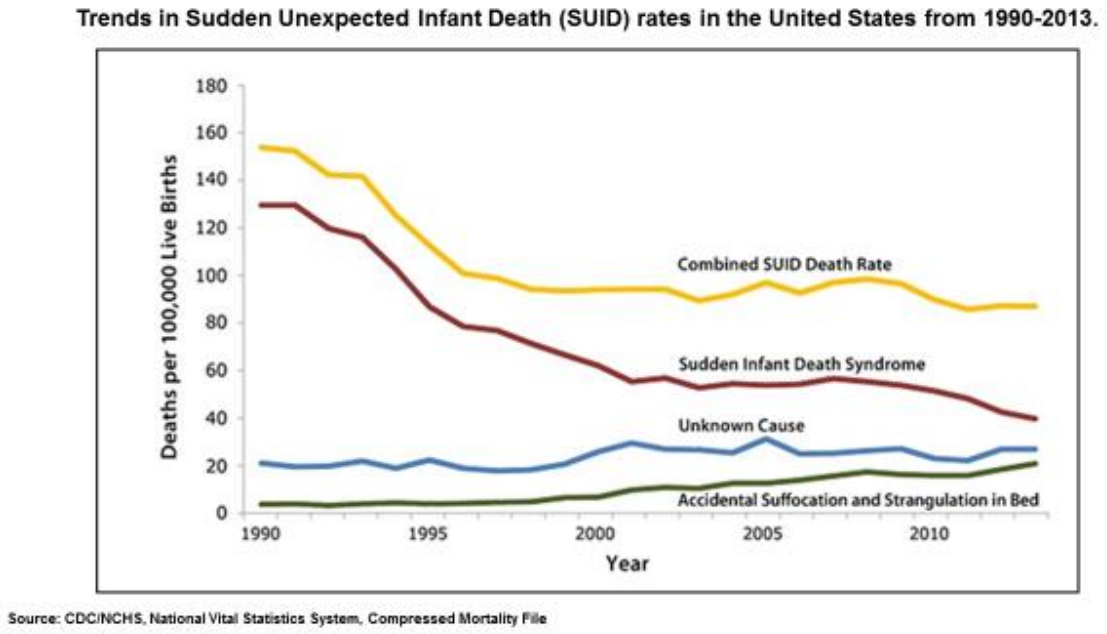
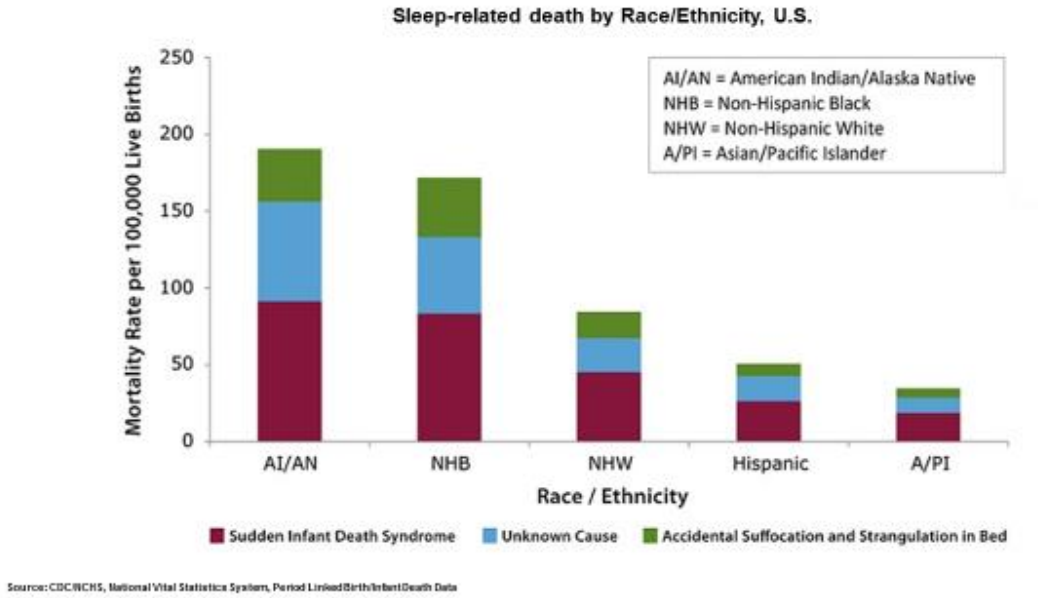


Figure 118. Trends in Sudden Unexpected Infant Death (SUID) rates in the U.S. from 1990-2013

The death rate for African-American infants due to sleep-related factors in Georgia has been almost twice that of White infants for many years (Figure 119). However, the death rates for other external causes of injury, with the exception of motor vehicle crashes, are nearly identical between African-American children and White children. Young mothers with low educational attainment are also at a higher risk for experiencing a sleep-related infant death.



Source: CDC/NCHS, National Vital Statistics System, Period Linked Birth/Infant Death Data

Figure 119. Sleep-related death by race/ethnicity, US

Nearly half of the deaths have occurred in an adult bed (47 percent). Eighty-three percent (83 percent) of the deaths occurred among infants younger than five months.

OLDER ADULT FALLS

Falls are responsible for significant mortality among older adults (Figure 120).

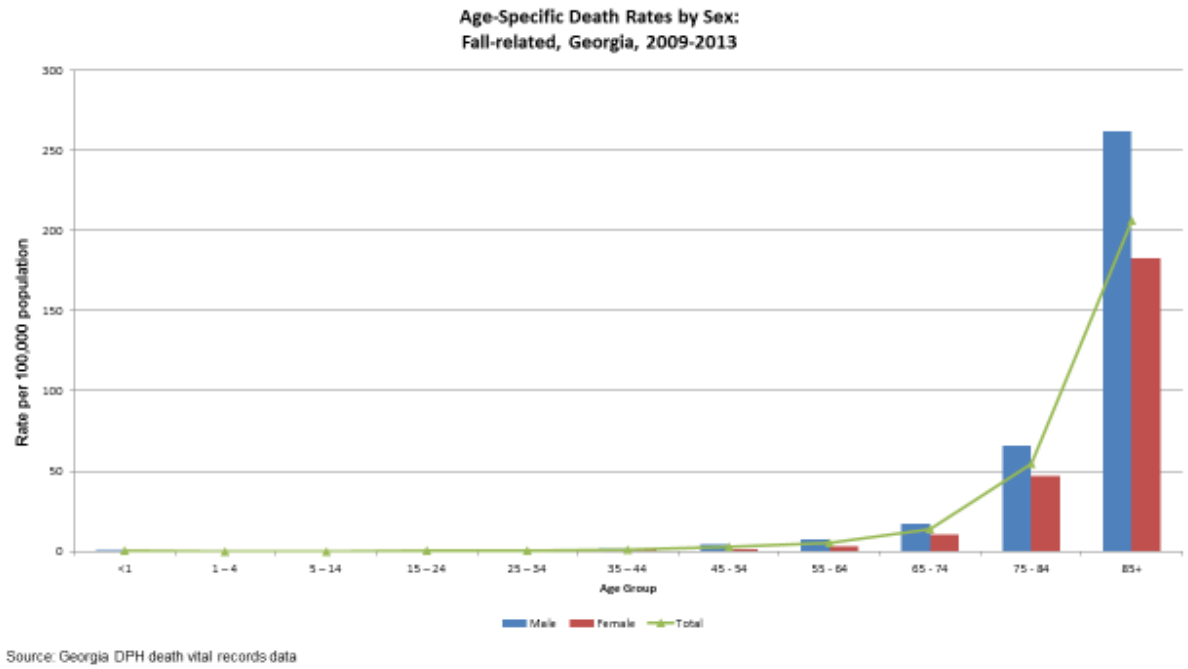


Figure 120. Age-specific death rates by sex, fall-related, Georgia, 2009-2013

Whites had an overall relatively higher fall-related death rate than African-American or other racial groups, both among males and females, particularly in the elderly (Figure 121).

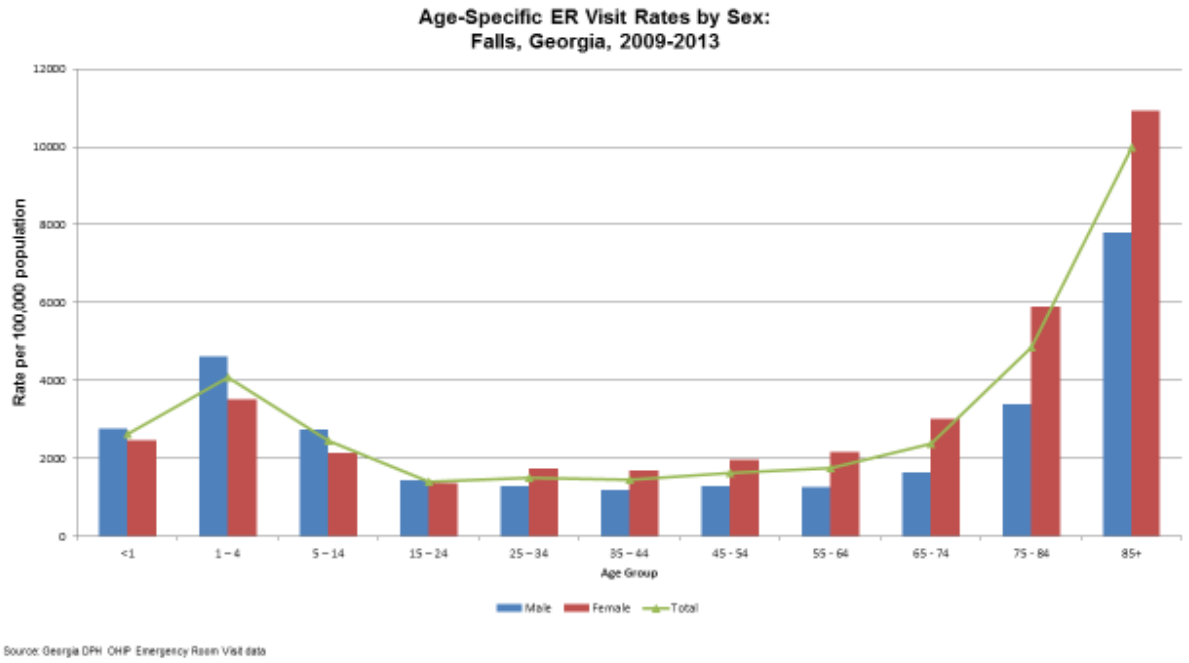


Figure 121. Age-specific ER visit rates by sex, falls, Georgia, 2009-2013

Fall-related injuries resulting from slipping, tripping, or stumbling accounted for 21 percent of deaths. However, half of death certificates did not indicate the type of fall. Most fall-related deaths involved injuries to the head, followed by injuries to the hip and thigh and to the neck. In Georgia, 43 percent of persons who died as a result of a fall suffered a traumatic brain injury (TBI) compared to 50 percent of individuals in the U.S. In Georgia, TBI was the primary or associated diagnosis in 3 percent of all causes of death and 11 percent of all TBI fatalities.

CDC recommends the following to prevent falls in elderly adults:

- Regular exercise
- Doctor or pharmacist's review of medications (to reduce side effects and interactions)
- Annual eye exams
- Home lighting improvements
- Reduction of hazards in the home that can lead to falls

In addition to the causes already described, drowning, fires, and suicide all contribute significantly to the injury burden in Georgia.

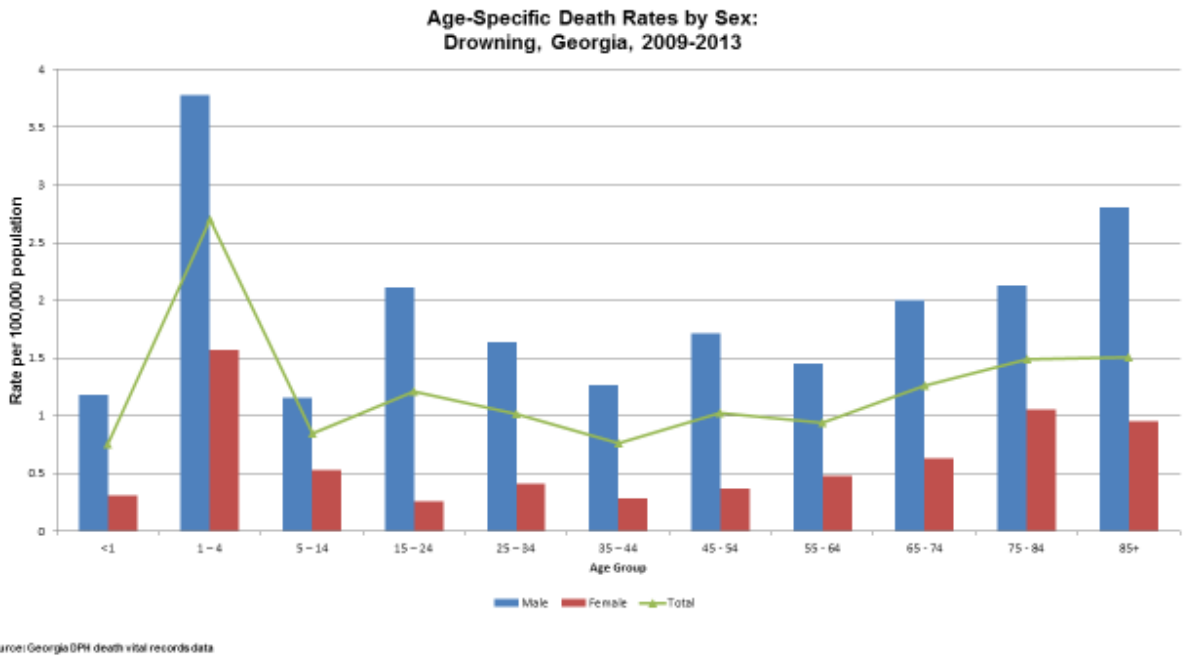


Figure 122. Age-specific death rates by sex, drowning, Georgia, 2009-2013

Overall, death rates from drowning in Georgia were slightly higher than the U.S from 2004 to 2011. The death rates in Georgia and the U.S. began to decrease after 2011. Death rates for males were higher than those for females among Whites, Blacks, and the other race category (Figure 122). Males from the other/unknown race category had the highest drowning death rates (2.5 per 100,000 population) followed by black males (2.0 per 100,000 population).

A total of 564 fire-related deaths occurred in Georgia between 2009 and 2013, an average of 113 deaths per year. More Whites (57 percent) died from fire-related injuries than Blacks (41 percent). However, the age-adjusted death rate from fire-related injuries was twice as high in Blacks (2.1 per 100,000 population) than in Whites (1.0 per 100,000 population). More males (~60 percent) died from fire-related injuries than females (~40 percent). The highest number of fire-related deaths were seen in adults ages 45-84 years. Fire-related death rates were highest among persons age 85 years and older.

Suicide is the leading cause of violence-related death, and the 11th leading cause of overall deaths in Georgia. During 2009-2013, there were 5,664 suicides in Georgia, an average of 1,133 deaths per year. The majority of suicides were Whites (84 percent), and males (78 percent) (Figure 123).

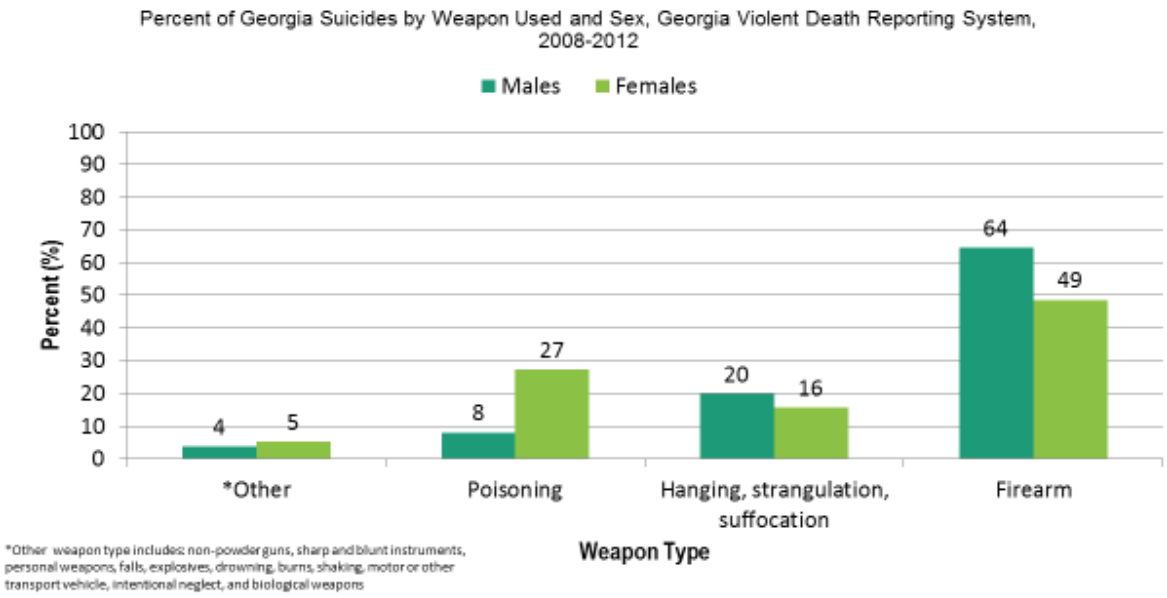


Figure 123. Percent of Georgia suicides by weapon used and sex, Georgia Violent Death Reporting System, 2008-2012

The suicide rate was over four times greater for males (19.0 per 100,000 population) than for females (4.8 per 100,000 per population). Whites (15.3 per 100,000 population) were more likely than Blacks (5.0 per 100,000 population) and people of other races (6.9 per 100,000 population) to die from suicide.

PART 2. PUBLIC HEALTH SYSTEM ASSESSMENT

ACCESS TO CARE IN GEORGIA

According to the State Office of Rural Health, there are currently approximately 6,100 designated Health Professional Shortage areas (HPSAs) across the state of Georgia. Primary Care HPSAs are based on a physician to population ratio of 1:3,500. In other words, when there are 3,500 or more people per primary care physician, an area is eligible to be designated as a primary care HPSA. Applying this formula, it would take approximately 8,200 additional primary care physicians to eliminate the current primary care HPSA designations. While the 1:3,500 ratio has been a long standing ratio used to identify high need areas, it is important to note that there is no generally accepted ratio of physician to population ratio.

Furthermore, primary care needs of an individual community will vary by a number of factors such as the age of the community's population. Additionally, the formula used to designate primary care HPSAs does not take into account the availability of additional primary care services provided by Nurse Practitioners and Physician Assistants in an area.

There currently are approximately 4,900 Dental HPSAs. Dental HPSAs are based on a dentist to population ratio of 1:5,000. In other words, when there are 5,000 or more people per dentist, an area is eligible to be designated as a dental HPSA. Applying this formula, it would take approximately 7,300 additional dentists to eliminate the current dental HPSA designation.

PRIMARY CARE HEALTH CARE SHORTAGE AREAS

54 of Georgia’s counties are considered primary care shortage areas; 57 counties are considered primary care shortage areas with a low-income population group; 6 counties are considered only partially primary care shortage areas, as the shortage only applies to a portion of the county; and only 10 counties have a designated facility such as a Federally Qualified Health Center or Rural Health Center for primary health care services. The majority of primary care shortages are in the rural counties across the state.

MEDICALLY UNDERSERVED AREAS/POPULATIONS

Of Georgia’s 159 counties, 141 have medically underserved areas; 7 of the 159 counties have medically underserved populations. Medically underserved areas are as prevalent in some metro areas as it is in rural areas across the state.

DENTAL HEALTH PROFESSIONAL SHORTAGE AREA

Forty-eight (48) of Georgia’s counties are considered shortage areas for dental health professionals; 72 counties are considered to have a shortage of dental health care professionals and a low-income population group; 3 counties are considered to have only a partial shortage, as the shortage only applies to a portion of the county; and only 10 counties have a designated facility such as a Federally Qualified Health Center or

Rural Health Center for services provided by dental health professionals. The majority of dental health professional shortages are in the rural counties across the state.

SELECTED RURAL HEALTH CARE FACILITIES IN GEORGIA

Many of the rural areas do not have access to critical access hospitals. Several counties in the state do not have access to critical access hospitals, rural health clinics or and federally qualified health centers (Figure 124).

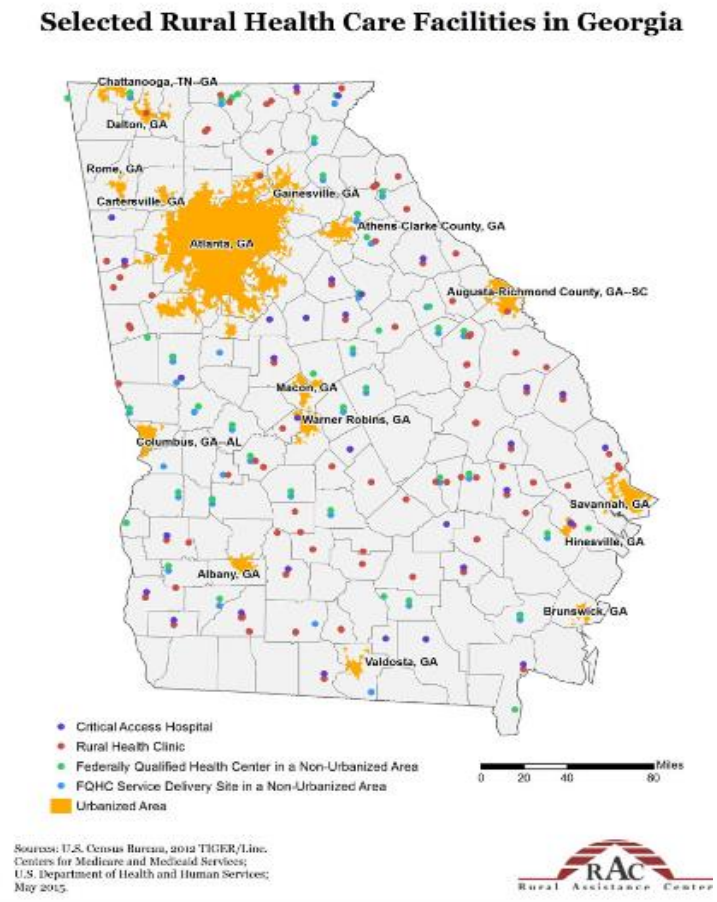


Figure 124. Selected rural health care facilities in Georgia

There are currently 33 rural hospitals across the state. Only 30 hospitals in the state are designated as critical access hospitals.

GEORGIA'S PUBLIC HEALTH SYSTEM

The Georgia Department of Public Health is the lead agency in preventing disease, injury and disability; promoting health and well-being; and preparing for and responding to disasters from a health perspective. In 2011, the General Assembly restored DPH to its own state agency after more than 30 years of consolidation with other departments.

At the state level, DPH functions through numerous divisions, sections, programs and offices. Locally, DPH funds and collaborates with Georgia's 159 county health departments and 18 public health districts. Through the changes, the mission has remained constant – to protect the lives of all Georgians. Today, DPH's main functions include: Health Promotion and Disease Prevention, Maternal and Child Health, Infectious Disease and Immunization, Environmental Health, Epidemiology, Emergency Preparedness and Response, Emergency Medical Services, Pharmacy, Nursing, Volunteer Health Care, the Office of Health Equity, Vital Records, and the State Public Health Laboratory.

For over a century, responsibility for Georgia's public health functions has been shared by state and local governments. The principal actors are the Georgia Department of Public Health (DPH), the 159 County Boards of Health, and the 18 District Health Directors. DPH and the County Boards of Health and the District Health Directors are best thought of as a partnership – not a partnership in the legal sense, but in the ordinary sense of people working together to accomplish a common goal.

Some Health Districts consist of a single county, while others include more than a dozen counties (Figure 125). The purpose of organizing county health departments into a Health District is to achieve economy by avoiding duplication of effort – it allows the county health departments to share a common chief executive officer and a central administrative staff.

The key link between DPH and the county boards of health is the District Health Director. The District Health Director is a licensed physician appointed by the DPH Commissioner and approved by the County Board of Health to serve as the CEO of the county health department. The DHDs and their District staffs manage the county health department staff, handle budgeting and billing, coordinate services and programs, provide professional management and supervision, report to the Commissioner and the County Board of Health, and execute the public health component of the State's emergency plans.

The County Boards of Health have responsibility for assessing local needs, advocating for county public health programs, approving and presenting the health budget to the county commission, and providing policy guidance to the District Health Director. The District Health Directors serve as the chief executive officers of the county health departments, handling the day to day operation of the county health departments in their districts. Although they report to the county board of health and to DPH, District Health Directors operate with broad discretion in the management of county health departments.

Unlike some other states, which have a centralized public health system controlled by a single state agency, Georgia employs a "hybrid" system of public health administration using both a state public health

department and separate county health departments. Although DPH has some oversight responsibilities toward the county boards of health, they are separate legal entities.[†]

Not surprisingly, there is much overlap between the operations of DPH and those of the county health departments. As the Attorney General has noted, "both the state and county have very broad duties and responsibilities in the area of public health and insofar as the positions taken by the county and state are not inconsistent, it is evident that they can both function in the same areas."[‡]

The keys to success in achieving the goals of public health are cooperation among these public health partners, mutual support, open communications, and respect for the unique role that each partner plays in serving the people of Georgia.

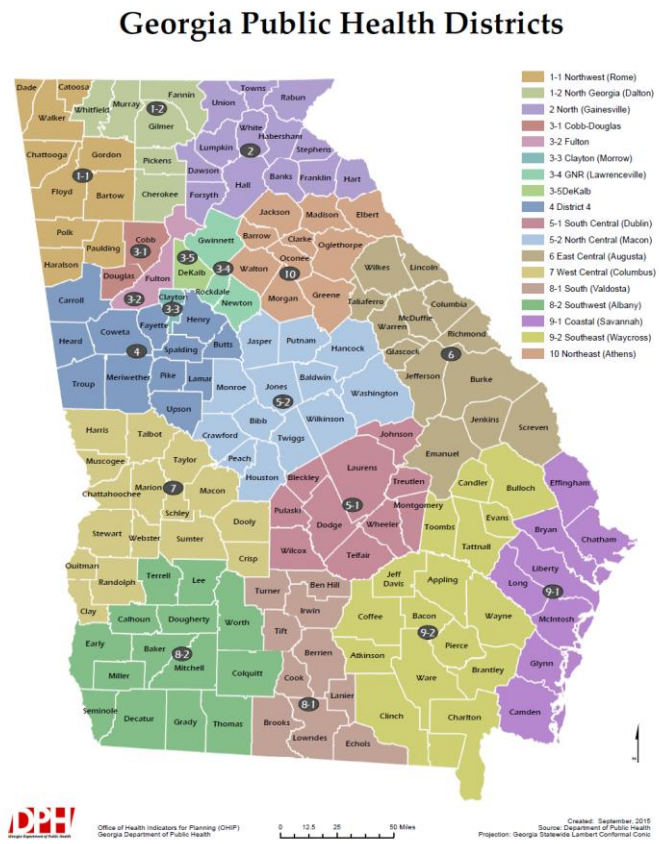


Figure 125. Georgia Public Health Districts

[†] 1974 Op. Att'y Gen. No. 74-19. *Accord*, ***Ga. Dept. of Human Resources v. Demory*, 138 Ga. App. 888 (1976)**; *Aldridge v. Georgia Hospitality & Travel Assoc.*, 251 Ga. 234, 237 (1983).

[‡] 1974 Op. Att'y Gen. No. 74-19.

PUBLIC HEALTH SYSTEM ASSESSMENT

In order to understand the capacity of the public health system in Georgia, DPH conducted a Public Health System Assessment. This assessment focused on how well the 10 essential public health services being provided and was intended to help the leadership of DPH to identify strengths, weaknesses and areas for improvement.

Methodology

The survey was distributed electronically using the state email system to state, district and county health department staff. In addition, surveys were distributed to county board of health members. The department received 376 responses. The survey looked at the components, activities, competencies, and capacities of our Georgia public health system.

OVERALL SUMMARY OF FINDINGS

The majority of respondents (89 percent) to the survey represent the core partners of the Department of Public Health (DPH). The District Health Offices, county health departments and the county board of health together with the DPH form the Georgia Public Health System. County Board of Health members represent local county/city government, education, healthcare, and vulnerable populations of the county.

Respondents	Responses	Percentage
Health District Staff	146	38.6%
County Health Department Staff	160	42.6%
DPH State Office Staff	42	11.2%
County Board of Health Member	28	7.5%
Total	376	

Respondents indicated that DPH does well in identifying the health status of the state's population, identifying health threats and identifying health service needs of at risk populations. Respondents also identified DPH's ability to diagnose and investigate health problems and hazards as an area of strength. DPH received a significant number of optimal responses in the areas of disease surveillance and identifying health threats to the population, and surveillance and investigation of environmental health hazards.

DPH also does well in analyzing health problems and planning for response to major health threats. DPH is doing a satisfactory job of health planning. However, respondents indicate that DPH should develop a systematic health planning process, such as a community health improvement plan that develops and tracks measurable health objectives that establish strategies/actions to guide health improvement. Responses

indicated that DPH needs to do a better job of getting input from population groups affected by proposed health plans and policies before adoption and in aligning resources to assure successful planning.

DPH does a good job of developing laws, reviewing laws and evaluating laws that impact public health. Respondents indicated DPH does well informing regulated entities regarding compliance with laws and regulations. DPH received optimal ratings for their enforcement activities.

Communication is an area with mixed responses. DPH does well in the development of health information and health promotion activities designed to promote better health. However, DPH needs to develop partnerships with external organizations to implement and reinforce health education and health promotion activities. Survey responses indicate that DPH needs to do a better job of communicating health plans and activities through policy change, media advocacy, social marketing and risk communication to diverse audiences.

Another related, common theme among responses is that DPH needs to improve in the area of community and partner engagement. Respondents indicated that DPH needs to identify community assets and resources to promote health and assure the equitable distribution of resources. DPH needs to exercise leadership in the development of statewide partnerships to fully utilize resources for improving the state's health status. In particular, DPH needs to build and maintain partnerships with other sectors to provide a coordinated system of health care. This type of advocacy, policy leadership, partnership development requires resources and may require dedicated staff leadership, and this finding is something that DPH leadership will consider.

In addition, respondents identified access to health care as a concern. While this is not exclusively in the domain of DPH, it was noted that the agency could do more to improve in identifying populations with barriers to health care and assure that access is available to public health services. Current programs do not reach all of the people in need in Georgia.

Respondents noted that DPH has the workforce capacity to provide population health services and personal health services. However responses indicated that DPH may not have the salary structure, retention approaches, and training programs and policies necessary to ensure continual training and development for public health professionals. Respondents identified development of leadership, management skills, and cultural competence as areas of concern.

Finally, DPH needs to build a department wide quality improvement program and a performance management system that enable evaluation of programs and services. Responses noted the need for DPH to improve in the identification of innovative and cutting edge research to advance public health. Respondents indicated they were uncertain about DPH's ability to conduct health policy analysis and public health systems research.

PUBLIC HEALTH ENVIRONMENT

WATER QUALITY

Georgia's drinking water comes from surface waters (rivers, lakes, streams, ponds and reservoirs) and from groundwater (springs and wells). More than 80 percent of the state's population gets its drinking water from public water systems most of which treat the water before it is distributed (Figure 126).

In 2007, 94 percent of the population served by community water systems in Georgia received water that met all health-based standards. EPA's target for the southeastern states was 91 percent.

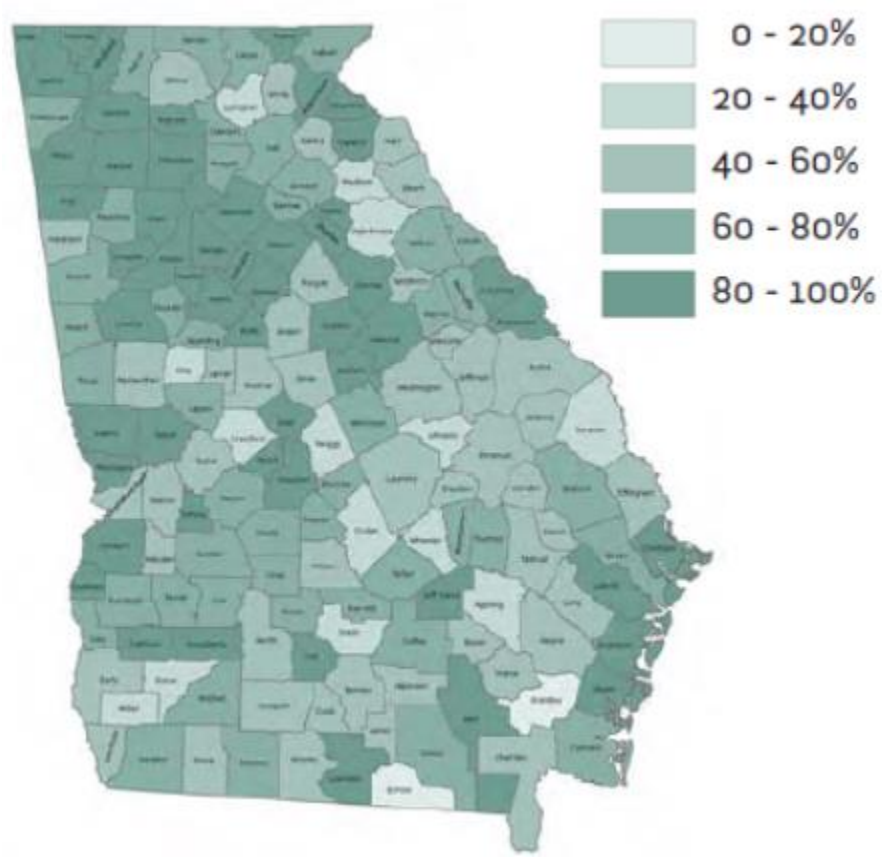


Figure 126. Percent of population on a public water supply system, by county, Georgia, 2007

AIR QUALITY

Ozone is a gas that forms when nitrogen oxides and volatile organic compounds react in the presence of sunlight. This ground level ozone can inflame and damage the lining of the lungs, reduce lung function and aggravate asthma.

Particulate matter includes smoke, dust, fly ash and liquid droplets that can remain suspended in air for long periods of time. Fine particulate matter poses the greatest threat to human health. Fine particles can penetrate deep into the human respiratory system and contribute to respiratory and cardiopulmonary disease.

Approximately 17 percent of the state's population falls into "sensitive" categories, meaning they are less than 5 years old, more than 65 years old, or have weakened immune systems or symptoms of asthma. People in these sensitive groups may feel greater effects from poor air quality, and air quality standards are set at levels to protect them. Of this population, more than 50 percent, approximately 850,000 live in areas that have been declared non-attainment for either ozone or particulate matter or both.

Non-attainment areas are determined by the number of times a pollutant surpasses the air quality standards. For ozone and fine particulate matter, levels exceed the standards in several parts of Georgia. Twenty full counties in Georgia have been designated non-attainment for ozone and 24 full counties and three partial counties have been designated non-attainment for fine particulates. These counties contain more than half of Georgia's population. Fifty-five (55) percent of the state's population lives in counties where ozone levels sometimes exceed the standard and 57 percent live in areas where levels of fine particulates sometimes exceed the standard.

ASSETS AND RESOURCES

Georgia's public health system consists of 159 county health departments and county boards of health divided into 18 health districts along with a state office. The public health system also comprises innumerable partners from the following sectors—health care; education; private employers; insurers; agriculture; information technology; nonprofit, and local, state and federal government. Below is a listing of DPH assets and resources.

DPH Community Assets and Resources

AID Atlanta, Inc.
AID Atlanta, Inc.
AID Gwinnett/Ric Crawford Clinic Inc.
American Cancer Society - South Atlantic Division
American Lung Assoc. of the Southeast, Inc.
American Red Cross / DHS / DBHDD / DPH
Assoc. of Public Health Laboratories - NLTN
Assoc. of State & Territorial Health Officials (ASTHO)
Atlanta Breastfeeding Consultants, Inc.
Atlanta Harm Reduction Coalition, Inc.
Atlanta Oncology Assoc.
Atlanta Research and Education Foundation (AREF)
Brain & Spinal Injury Trust Fund Commission
Cancer Coalition of South GA, Inc.
Center for Pan Asian Community Services, Inc.
Central City AIDS Network
Comprehensive AIDS Resource Encounter, Inc.
East GA Cancer Coalition, Inc.
Easter Seals of North GA
Easter Seals West GA, Inc.
Empowerment Resource Center Inc.
Federation of Southern Cooperatives
GA Academy of Family Physicians, Inc. (GAFP)
Ga American Academy of Pediatrics
GA Assoc. for Primary Health Care, Inc.
GA Assoc. of Emergency Medical Services, Inc.
GA Chapter of the American Academy of Pediatrics
GA CORE - GA Center for Oncology Research & Education
GA Enterprises for Products and Services, Inc.
GA Eye Bank, Inc.
GA Health Care Assoc.
GA Hospital Assoc. Research & Education Foundation
GA MCF - GA Medical Care Foundation
GA Obstetrical Gynecological Society
GA Parent Infant Network for Education Services (GA PINES)
GA Partnership for Telehealth
GA Pharmacy Association
GA Rural Water Assoc.
GA Society to Prevent Blindness
Georgia Asthma Coalition
Georgia Center for Oncology Research and Education
Georgia Hospital Association
Georgia Network to End Sexual Assault, Inc.
Harambee House, Inc.
Healthy Mothers Healthy Babies Coalition of GA, Inc.
Hemophilia of GA, Inc.
HIV/AIDS Empowerment Resource Center for Young Women, Inc.
International Air Transport Assoc.
Kaiser Family Foundation
March of Dimes
Marcus Autism Center, Inc.
NAPHSIS
National Assoc. of Chronic Disease Directors (NACDD)
National Center on Birth Defects and Developmental Disabilities

National Healthy Mothers Healthy Babies
New Horizon Community Service Board
Not One More Life
Nurses for Newborns Foundation
Parent to Parent of GA, Inc.
Positive Impact, Inc.
Prevent Blindness GA
Rape Crisis of the Coastal Empire, Inc.
Recovery Consultants of Atlanta, Inc.
Healthy Mothers Healthy Babies Coalition of GA, Inc.
Sexual Assault Center of NWGA, Inc.
Sister Love, Inc.
Someone Cares Inc.
STAND, Inc.
The Cooper Institute
Union Mission
United Way of Metropolitan Atlanta
West Central GA Cancer Coalition, Inc.
West Georgia Rape Crisis Center
Women In Need of God's Shelter, Inc.
Youth Empowered Solutions

DPH INSTITUTIONAL ASSETS AND RESOURCES

Albany State University
Athens Regional Medical Center
Atlanta Medical Center, Inc. - Tenet Health System GB, Inc.
Atlanta Police Dept.
Atlanta VA Medical Center
Auditory-Verbal Center, Inc.
Augusta VA Medical Center
Barrow Regional Medical Center
Board of Regents - Ga Archives
Brain & Spinal Injury Trust Fund Commission
Bright from the Start - GA Dept. of Early Care and Learning
Center For The Visually Impaired
Central GA Radiation Oncology Centers
Chatham County Board of Health
Children's Healthcare of Atlanta
Choice Health Care Network, LLC
City of Savannah Housing Dept.
Cobb Center for Radiation Therapy, Inc.
Cobb County Board of Health
Cobb County Police Dept.
Columbus Health Services dba Community Health Pharmacy formerly The Medical Center
Columbus Regional Healthcare System
Columbus Wellness Center Outreach & Prevention Project, Inc.
Community Health Care Systems, Inc.
Consumer Product Safety Commission
Council of Superior Court Clerks of GA
Criminal Justice Coordinating Council
Crisp Regional Health Services
DeKalb County Medical Examiner
DeKalb County Police Dept.
DeKalb Medical
Dept. of Corrections
Dept. of Veterans Affairs
Eastman Youth Detention Center
ECHA Johns Creek, LLC dba Emory Johns Creek Hospital
Effingham Hospital
Emanuel Medical Center
Emory Clinic (The)
Emory Saint Joseph's, Inc.
Emory Prevention Research Center
Emory University - Rollins School of Public Health
Emory University - Office of Grants & Contracts Accounting
Emory University-Office of Sponsored Programs
Emory University (Emory Prevention Research Center)
Emory University Hospital
Emory University Hospital Midtown (formerly Crawford Long)
Emory University School of Medicine
FBI
Floyd Healthcare Management, Inc. d/b/a Floyd Medical Center
Fulton County, A Political Subdivision of the State of GA
Fulton County Dept. of Health & Human Services
Fulton County Government
Fulton County Medical Examiner's Office
Fulton DeKalb Hospital Authority
Fulton DeKalb Hospital Authority
GA Dept. of Agriculture
GA DBHDD - GA Dept. of Behavioral Health & Developmental Disabilities
GA DBHDD - GA Dept. of Behavioral Health & Developmental Disabilities
GA DCH - GA Dept. of Community Health
GA DCH - GA Dept. of Community Health
GA DCH (PeachCare)
GA DCH, Emory University, and Truven Health Analytics
GA Department of Community Health (DCH)
GA Department of Community Health (DCH)-Medicaid
GA Department of Human Services and Department of Behavioral Health and Developmental Disabilities (DHS/DBHDD)

GA Dept. of Driver Services

GA Dept. of Early Care and Learning (DECAL)

GA Dept. of Education

GA DHS - DFCS

GA DHS – Div. of Aging Services

GA DHS - GA Dept. of Human Services

GA DHS/Child Support Services

GA DNR - COASTAL RESOURCES DIV

GA DNR - GA Dept. of Natural Resources, Environmental Protection Division

GA DOC - GA Dept. of Corrections

GA DOE - GA Dept. of Education

GA DOL - GA Dept. of Labor

GA DOR- GA Dept. of Revenue

Disability Adjudication Services-GA Vocational Rehabilitation Agency(formerly GA DOL - GA Dept. of Labor)

GA DOT

GA DPH - OEMST GA DCH - Division of Emergency Preparedness and Response

GA DPS- GA Dept. of Public Safety

GA Emergency Management Agency

GA Enterprises (formerly Clayton Co Public School dba Worktec)

GA Enterprises for Products and Services, Inc.

GA Eye Bank, Inc.

Georgia Health Policy Center/GSU

GA Health Sciences University (MCG Health, Inc.)

GA Public Broadcasting

GA Regents University

GA Regents University - MCG Health Inc.

GA Regents University - MCG Health Inc.

GA Southern University

GA Trauma Commission

Gainesville Police Dept.

GBI - GA Bureau of Investigation

Geo Care, Inc.

Georgia Center for Oncology Research and Education

Georgia Head Start Association

Georgia Regents Research Institute, Inc.

Georgia Regents University

Georgia Southern Univ. Research and Service Foundation, Inc.

Georgia Tech Applied Research Corp

Governor's Office for Children and Families

Grady Burn Center

Grady Health System

Grady Memorial Hospital

Grady Memorial Hospital (GA Poison Ctrl)

Griffin Regional Radiation Therapy Center

GSU - Andrew Young School of Policy

GSU - Ga State University

GSU - GA State University Research Foundation, Inc.

GTA - GA Technology Authority

Gwinnett County Medical Examiner's Office

Gwinnett County Police Dept.

Gwinnett Hospital Inc. (Gwinnett Medical Center)

Gwinnett Hospital System, Inc.

Hall County Coroner's Office

Hamilton Medical Center Inc.

Harbin Clinic Department of Radiation Oncology

Harbin Clinic Infusions formerly Pharmatrend Infusions

Health Care Central GA, Inc.

Henry Radiation Oncology Center, LLC

HIV/AIDS Empowerment Resource Center for Young Women, Inc.

Institute for Radiation Therapy, Inc.

John D. Archbold Memorial Hospital, Inc.

Joseph M. Still Burn Center (Doctors Hospital)

Just Care, Inc.'s Columbia Regional Care Center

Macon-Bibb County Health Department

MCG Health, Inc.

Meadows Regional Medical Center

Medical Center of Central GA, Inc.

Medical Center, Navicent Health (formerly Medical Center of Central Georgia, Inc.)

Medical College of Georgia Health, Inc. (Maternal)

Medical College of Georgia Health, Inc. (Neonatal)
Medical Ctr. of Central GA (Maternal)
Medical Ctr of Central GA (Neonatal)
Memorial Health University Medical Center, Inc.
Memorial Health University Medical Center, Inc. (Maternal)
Memorial Health University Medical Center, Inc. (Neonatal)
Mercer University (Corporation of)
Midtown Medical Center, Inc. (Maternal)
Midtown Medical Center, Inc. (Neonatal)
Monroe HMA, LLC d/b/a Clearview Regional Medical Center (formerly Walton Regional)
Morehouse School of Medicine Inc.
Morgan Co Hospital Authority
National Assoc. of Chronic Disease Directors (NACDD)
National Center on Birth Defects and Developmental Disabilities
Newnan Regional Radiation Therapy
North Fulton Regional Hospital
Northeast GA Medical Center
Northeast Georgia Health System
Northeast Georgia Medical Center
Northside Hospital
Northside Hospital - Cherokee, Inc.
Northside Hospital, Inc. (Forsyth)
Northside Hospital, Inc. (Atlanta)
Northside Hospital, Inc. (Forsyth)
Northwest GA Regional Cancer Coalition, Inc.
Office of the Child Advocate, Division of Child Fatality Review (OCA/CFR)
Phoebe Putney Memorial Hospital, Inc.
Phoebe Putney Memorial Hospital, Inc. (Maternal)
Phoebe Putney Memorial Hospital, Inc. (Neonatal)
Phoebe Sumter Medical Center
Piedmont Henry Hospital
Radiotherapy Clinics of GA
Redmond Hospital
Redmond Regional Medical Center
Refugee Health Program
RFP - MCH Call Center
Richmond County Sheriff's Office
Rockdale County Coroner's Office
Rockdale Medical Center
Saint Joseph's Hospital
Saint Joseph's Mercy Care System
Satilla Regional Cancer Treatment Center - Cure Point
South GA Center for Cancer Care
South GA Medical Center
South University Research Corporation
Southeast GA Health System - Brunswick Campus
Southern Crescent Sexual Assault Center
Southern Regional Medical Center
St. Joseph's Mercy Care Services
St. Mary's Healthcare System
State Accounting Office
Taylor Regional Hospital
The Consortium for Southeast Hypertension Control
The Cottage Sexual Assault Center & CAC
Tift Regional Medical Center (Tift County Hospital Authority)
Ty Cobb Regional Medical Center
UGA - Board of Regents
UGA College of Public Health
University Health Services, Inc. dba University Hospital
University of GA
University of GA - IHMD (BOR)
University of GA (BOR) (ITOS)
University of GA Research Foundation
University System of GA on behalf of Valdosta State University
University of Tennessee
US Dept. of Agriculture Animal & Plant Health Inspection Service, Wildlife Services (USDA-APHIS-WS)
US Dept. of Health & Human Services
Valdosta State University (BOR/USG)

Wellstar Cobb Hospital
WellStar Health System
Wellstar Kennestone Hospital
Wellstar Kennestone Regional Medical Center
WellStar Paulding Hospital
West Central GA Cancer Coalition, Inc.
West End Medical Center
West GA Medical Center, Inc.
Westcare GA, Inc.

Chronic Disease Additional Assets and Resources

Community Assets

ACS CANCER ACTION NETWORK
Alere Wellbeing
American Academy of Pediatrics-Georgia Chapter
American Association of Diabetes Educators
American College of Physicians-Georgia Chapter

American Diabetes Association
Community Health Works
Coverdell Stroke Registry
CVS Caremark Pharmacy
Georgia Breast Cancer Coalition Fund
Georgia OB/GYN Society
Good Samaritan Health Center
Healthcare Georgia Foundation
HRSA Atlanta Regional Office
Merck
Mercy Care Atlanta, Inc.
Rite Aid Pharmacies
Susan G. Komen For The Cure-Atlanta Chapter
The Cottage Sexual Assault Center and CAC
The Health Initiative (Voice for LGBTQ)
YWCA, Encore Plus Program

Institutional Assets

Armstrong State University
Fort Valley State University
Morehouse Prevention Research Center
Savannah State University
University of West Georgia

Maternal and Child Health Additional Assets and Resources

Community Assets

Sickle Cell Association of Lower Chattahoochee Region
Hands & Voices
Commission on Hearing Impaired and Deaf Persons
Georgia Lions Lighthouse
Sickle Cell Foundation of Ga

Institutional Assets

Georgia State Center for Leadership and Disability
Bacon County Hospital
Cartersville Medical
Clearview Regional Medical Center
Coffee Regional Medical Center
Coliseum Medical Center
Colquitt Regional Medical Center
Crisp Regional Hospital
Doctor's Hospital Augusta
Dodge County Hospital
Donalsonville Hospital
East Georgia Regional
Emory Eastside Medical Center
Emory John's Creek Hospital
Hutcheson Medical Center
Fairview Hospital
Fannin Hospital
Gordon Hospital
Grady General
Habersham Medical Center
Houston Medical Center
Irwin County Hospital
Liberty Regional Medical Center
Mayo Clinic Health System in Waycross
Memorial Hospital and Manor
Midwife Group and Birth Center
Newton Medical Center
Oconee Regional Medical Center
Piedmont Fayette Hospital
Piedmont Hospital (Atlanta)
Piedmont Mountainside Hospital
Piedmont Newnan Hospital
South Georgia Health System
South East Georgia Health System (Camden)
Spalding Regional Medical Center
St. Francis Women's Hospital
Stephens County Hospital
Tanner Medical Center (Carrollton)
Tanner Medical Center (Villa Rica)
Trinity Hospital of Augusta
Union General Hospital
University Hospital
Upson Regional Medical Center
Washington County Medical Center
Wayne Memorial Hospital
Wellstar Douglas Hospital
Northwest Health District (Rome)
North Georgia Health District (Dalton)
North Health District (Gainesville)
Cobb/Douglas Health District
Fulton Health District
Clayton Health District
Easter Seals of North Georgia
DeKalb Health District
LaGrange Health District
South Central Health District (Dublin)
North Central Health District (Macon)
East Central Health District (Augusta)
West Central Health District (Columbus)
South Health District (Valdosta)
Southwest Health District (Albany)
Coastal Health District
Southeast Health District (Waycross)
Northeast Health District (Athens)
West Georgia Medical Center, Inc.
Wellstar Kennestone Hospital
Wellstar Cobb Hospital
Ty Cobb Memorial Hospital
Tift Regional Medical Center
Taylor Regional Hospital
St. Joseph's Candler Hospital
Spalding Hospital
Southern Regional Medical Center
Southeast Georgia Health System Brunswick Campus
South Georgia Medical Center
Saint Mary's Hospital of Athens
Rockdale Hospital
Piedmont Henry Medical Center
Medical Center Novicent Health (MCCG)
Memorial Health University Medical Center
East Georgia Regional Medical Center (Statesboro)
Dorminy Medical Center
DeKalb Medical Center

Children's Health Care of Atlanta (Scottish Rite)
Georgia PINES
Seaton Consultants
Georgia State University
Natus Medical
PENTA
Pediatrix Medical Group
The ENT Center of Central Georgia
Emory Healthcare
Children’s Hospital of Georgia
DeKalb Medical Center
Northside Hospital
Centers for Disease Control and Prevention
Department of Education, State Schools
Atlanta Area School for the Deaf
Georgia School for the Deaf
Atlanta Speech School
Memorial University Medical Center
Columbus Regional Hospital
Grady Health System/Emory University

Environmental Health Additional Assets and Resources

Childhood Lead

Community Assets

Safe Kids GA
GA Apartment Owners Association
Weir Lead Testing
Georgia Community Action Ass.(GCAA) Weatherization*
Leadnology Inc.
Georgia Realtors Ass.

Institutional Assets

DPH Tobacco Use Prevention
Bright From the Start
City of Atlanta, Dept. of Planning & Community Development
US Environmental Protection Agency
Georgia Environmental Protection Division
Centers for Disease Control and Prevention
US Housing and Urban Development
City of Atlanta Dept. of Planning and Community Development
GA. Deputy State Fire Marshall
Houston Co. Bd. Of Ed., Environmental & Safety

Aborviral Disease

Community Assets

Statesboro Public Works - Mosquito Control
Dougherty County Public Works - Mosquito Control
Chatham County Mosquito Control
Georgia Mosquito Control Association

Food Service Program

Institutional Assets

US Food and Drug Administration (FDA)
Georgia Restaurant Association (GRA)
US Department of Agriculture (USDA)
National Restaurant Association (NRA)

Water and Wastewater

GA Assn of Water Professional
GA Onsite Wastewater Assn
State Onsite Regulator Assn
GA Home Builders Assn
Atlanta Regional Commission
UGA College of AG, Crop and Soil Sciences
UGA College of Ecology, River Basin Center
Metropolitan North GA Water planning District
GA Dept. of Community Affairs
EPA Region IV
NSF, Drinking and Wastewater Programs
CDC, Waterborne disease and Outbreaks
Tourist Accommodations and Public Swimming Pool Program

Community Assets

National Swimming Pool Foundation
Association of Pool and Spa Professionals
Georgia Hospitality and Lodging Association
Asian-American Hotel Owners Association
Cobb County Dep. Of Parks and Recs Aquatics
Georgia Pest Control Association

Institutional Assets

ChlorKing, Inc.
Artistic Pools
Aquatic Training Institute
Water Technology
Water Works Inc.
Cheatham and Associates
CDC, National Center for Environmental Health
Insurance Commission, Safety Engineering Division
GDA, Structural Pest Commission
National Center for Emerging Zoonotic and Infectious Diseases
The Howell Group
Orkin Pest Control

Chemical Hazards Program

Community Assets

Keep Dalton-Whitfield Beautiful
Keep Newnan Beautiful
Glynn Environmental Coalition
Eco-Action
West Atlanta Watershed Alliance

Institutional Assets

University of Georgia, Marine Extension Service
University of Georgia, Agricultural & Environmental Services Lab
Emory University, Environmental Health Research Center
Dalton State College
Georgia State University, Center of Excellence on Health Disparities Research
Georgia State University, Georgia Health Policy Center

Dept. of Natural Resources (DNR), Coastal Resources Division
DNR, Environmental Protection Division, Brownfields Program
DNR, Environmental Protection Division, Hazardous Waste Corrective Action
DNR, Environmental Protection Division, Hazardous Waste Response & Remediation
CDC, National Center for Environmental Health, Healthy Community Design Initiative
Environmental Protection Agency, Brownfields Program
Environmental Protection Agency, Office of Environmental Justice and Sustainability
Agency for Toxic Substances and Disease Registry, Regional Headquarters
Agency for Toxic Substances and Disease Registry, Brownfields Program
Association of State & Territorial Health Officials, Environmental Health
MARTA, Office of Research & Analysis
Atlanta Regional Commission
Southface Energy Institute
Atlanta Beltline

Environmental Health Emergency Preparedness
Community Assets
American Red Cross / Georgia
American Red Cross / Georgia
Ga Funeral Directors Association
Georgia Critical Incident Stress Foundation
Institutional Assets
Atlanta Fire Rescue
CDC Division of Env. Haz and Health Effects
Disability Resource Advocate / EPR Consultant
Epidemiologist / Heumann Health Consult. Portland, OR
FBI / Special Agent / Special Events
FDA Consumer Safety Officer, Indi., IN
FDA SE Regional Laboratory, Chemist , Atlanta
GBI Mass Fatality Trailers contact
GEMA Public Assistance Division
GEMA State Operations Director
Generac
Georgia Coroners Association
Georgia Hospital Association / Train & Exercise Coord.
Georgia State Patrol (GDPS) / GEMA Liaison
GER | Global Emergency Resources
Goings Consulting Services / Mass Fatality Planning
Guardian Centers
Mortech Manufacturing
Mortuary Response Solutions
Mower Doc / Generac Generator Maintenance
NYC Medical Examiner
Southern LINC Wireless / Southern Company
USDA / Atlanta office
Veteran Corps / Installation Emerg. Mgr.

Trauma System Additional Assets and Resources

Community Assets

GA EMS Association
GA Hospital Association
Gov. Office of Highway Safety
Georgia Trauma Care Network Commission
GA Committee on Trauma Excellence

Institutional Assets

Archbold Memorial Hospital
Athens Regional Medical Center
Atlanta Medical Center
CHOA - Egleston
CHOA - Scottish Rite
Clearview Regional Medical Center
Crisp Regional
Joseph M Still Burn Center
Effingham Hospital
Emanuel Medical Center
Floyd Medical Center
Georgia Regents University
Grady Burn Center
Grady Memorial Hospital
Gwinnett Medical Center
Hamilton Medical Center
Meadows Regional Hospital
Medical Center Navicent Health
Memorial Health University
Midtown Medical Center
Morgan Memorial Hospital
North Fulton Hospital
Northeast Georgia Medical Center
Redmond Hospital
Taylor Regional
Trinity Hospital of Augusta
Wellstar Kennestone Regional Medical Center
Appling Healthcare System
Carterville Medical Center
Doctors Hospital of Augusta
Fairview Park Hospital
Hutcheson Medical Center
Phoebe Putney Memorial Hospital

South Georgia Medical Center
Shepherd Spinal Center
Winn Army Community Hospital

Women Infants and Children Additional Assets and Resources

Community Assets

Northwest Georgia Regional Commission
Legacy Link, Inc.
Atlanta Regional Commission
Three Rivers Southern Crescent
Northeast GA RC
River Valley RCAAA
Middle GA RC
CSRA
Heart of GA ARC
Southwest GA RC
Southern Georgia Area Agency on Aging
Coastal GA RDC

Institutional Assets

WIC District Rome 1-1
WIC District Dalton 1-2
WIC District Gainesville 2-0
WIC District Cobb Douglas 3-1
WIC District Fulton 3-2
WIC District Clayton 3-3
WIC District Gwinnett 3-4
WIC District DeKalb 3-5
WIC District LaGrange 4-0
WIC District Dublin 5-1
WIC District Macon 5-2
WIC District Augusta 6-0
WIC District Columbus 7-0
WIC District Valdosta 8-1
WIC District Albany 8-2
WIC District Coastal 9-1
WIC District Waycross 9-2
WIC District Athens 10-0
WIC District Grady 12-0