Georgia Department of Public Health
Statewide Health Assessment
DRAFT March 2016

Acknowledgements

Table of Contents

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 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 School of Public Health Outreach Center, held a session on future issues facing public health at the UGA State of Public Health conference on October 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.

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% 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%% of health outcomes. The remaining 60% 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%. And, social and economic factors like education, employment, housing and transportation factors account for about 15% 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% 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).

[1] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 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.

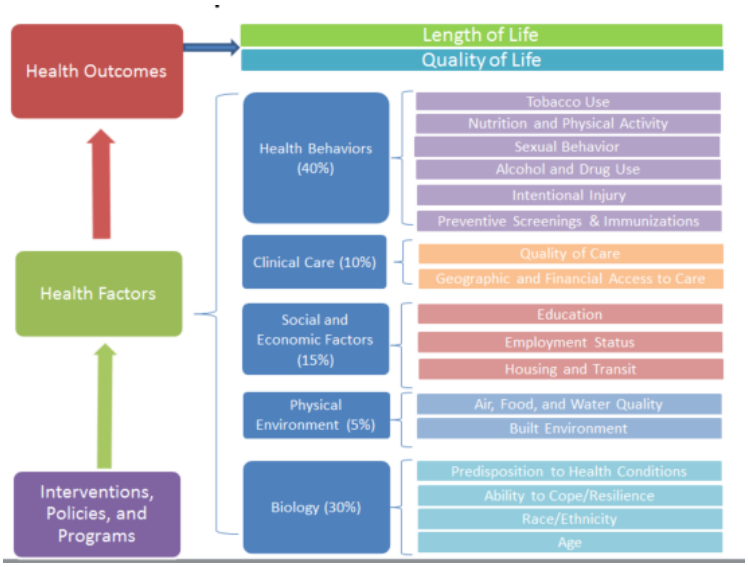


Figure 1. Georgia Population Health Outcome Model

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, maternal and child health, environmental health, and mental health and drug abuse. The indicators also reflect health disparities, where applicable.

Part 2 describes the context for these indicators and supports use of the indicators for planning purposes by describing 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% white, 31.4% black or African-American, 3.7% Asian, 0.5% American Indian or Alaska Native, 1.9% Multi-racial, and 9.2% Hispanic (Hispanic can be of any race).

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% 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 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).

Demographic population totals 2010

Total population in Georgia	
Total Population:	9,687,653
Male Population:	4,729,171
Female Population:	4,958,482

US Census Bureau 2010

Population by Races 2010

Race	Population	% 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%
Three or more races	15,920	Below 1%
Native Hawaiian Pacific Islander	6,799	Below 1%
Native Hawaiian	1,319	Below 1%
Alaska Native tribes	220	Below 1%

191 US Census Bureau 2010

192

193

Demographic median age by sex 2010

Median age in Georgia	
Both sexes	35
Male	34
Female	36

194 US Census Bureau 2010

Demographic household type 2010

Number of occupied homes in 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

US Census Bureau 2010

Demographic population in families by age 2010

Population in families living in Georgia	
Total Population:	7,781,104
Population Under 18 years:	2,443,455
Population 18 years and over:	5,337,649

US Census Bureau 2010

Demographic population of homes with people 60 year olds and over 2010

Households in Georgia containing people over 60	
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

US Census Bureau 2010

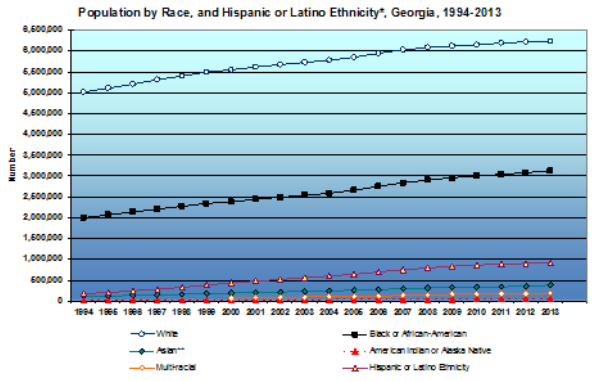


Figure 2

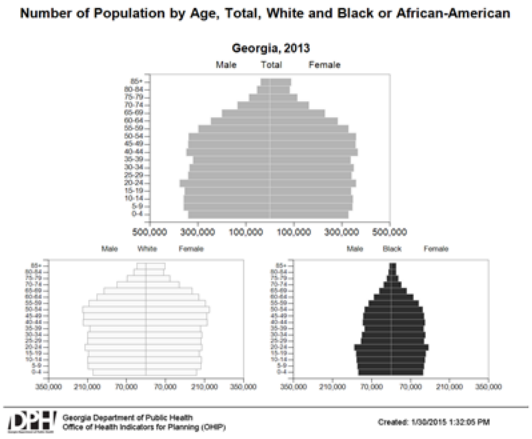


Figure 3

Figure 4

Figure 5

Within Georgia's 159 counties, there is a great deal of variation in population structure and socioeconomic status. Figure 2 shows 18 distinct demographic clusters as aggregations of census block groups (sub-county geographic units).

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 a total of 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 suburbs of metro Atlanta.

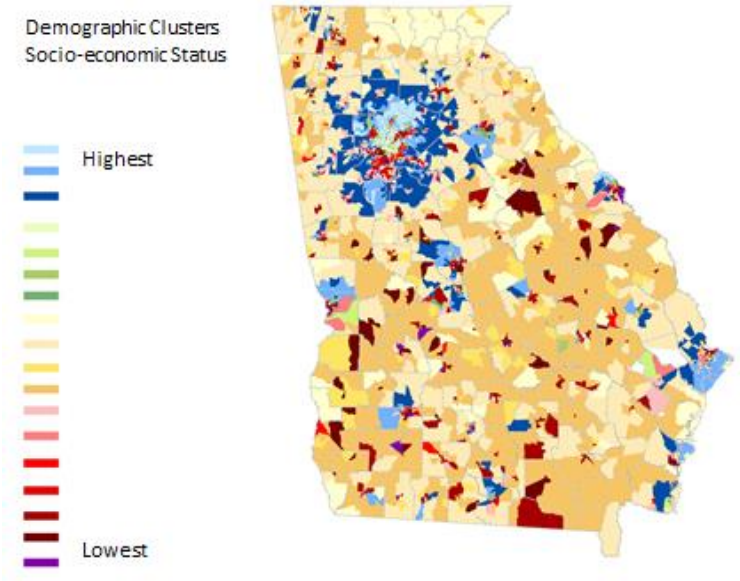


Figure 6

Regarding lower socioeconomic groups, Georgia's trend in poverty rates have outpaced the U.S during 2000 to 2012. Moreover, increases in poverty are disproportionately found in children less than five years of age during 2000 to 2012. Concomitantly, unemployment rates in Georgia have outpaced the U.S.

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.

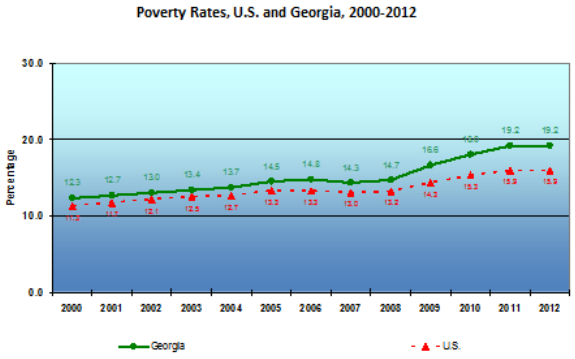


Figure 7

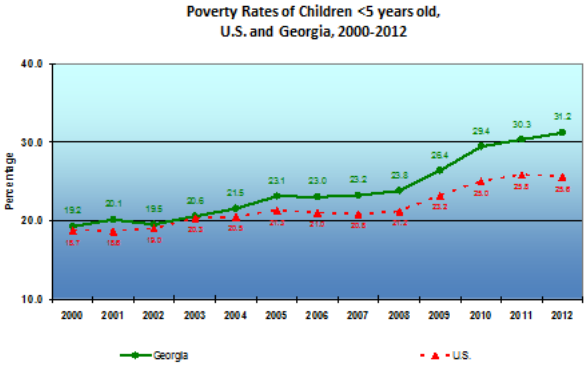


Figure 8

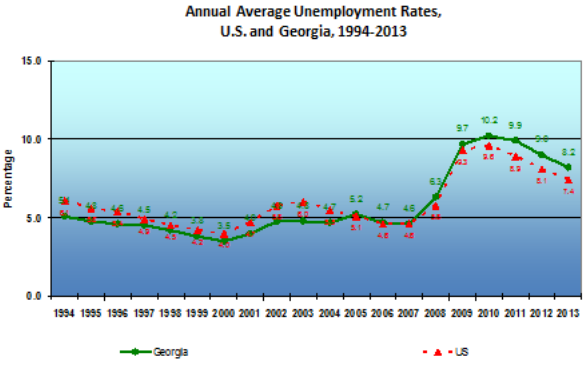


Figure 9

PART 1

Selected Measures of Health Status Georgia, 2015

Leading Causes of Premature Morbidity and Mortality Among Georgians: Overview

The 10 leading overall causes of morbidity and 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 10). 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 11).

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% of the potential years of life lost are tobacco, poor diet and physical inactivity. Infectious disease and alcohol are responsible for another nearly 15 %. Firearms, toxic agents, illicit drug use, and sexual behavior account for the remaining years of potential life lost (Figure 12). Causes of early death are the areas where public health has the greatest opportunity to intervene through prevention, promotion, and protection measures.

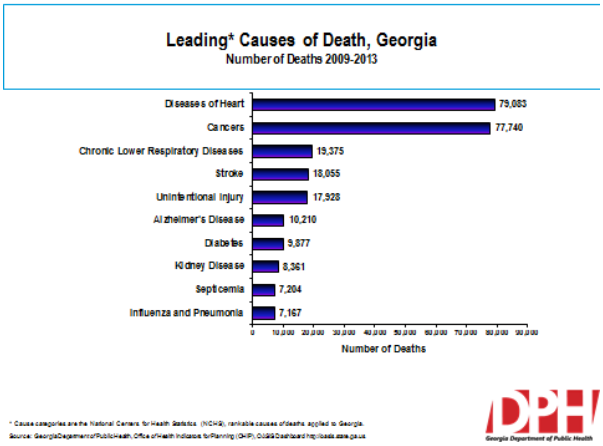


Figure 10

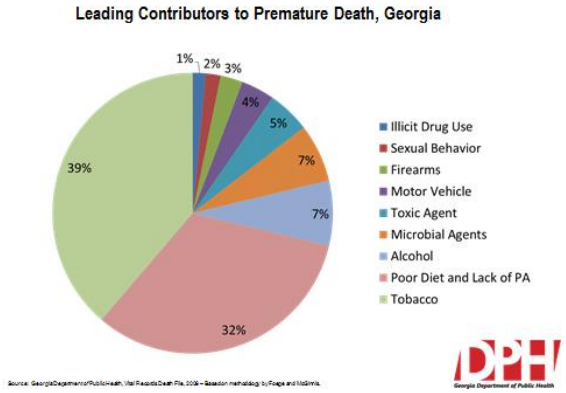


Figure 11

Maternal and Child Health

Maternal Mortality

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

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

<u>TREND OVER TIME</u>

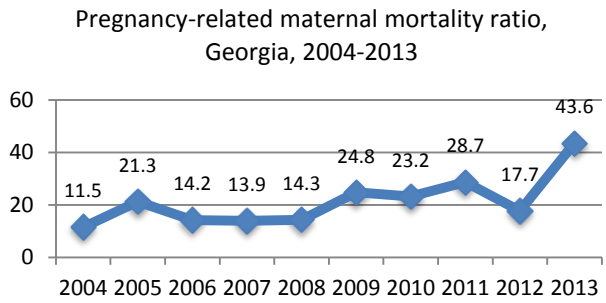


Figure 12

Source: OASIS state.ga.us

<u>DEMOGRAPHIC/EQUITY</u>

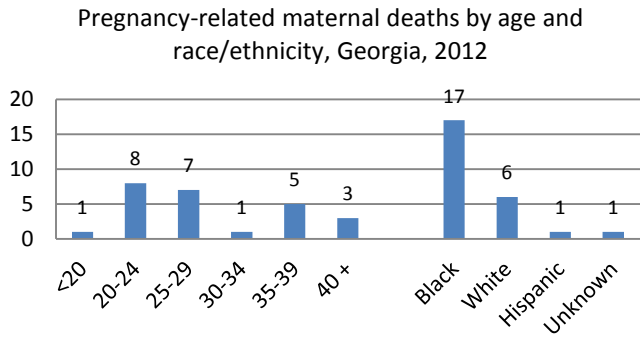


Figure 13

Source: Maternal Mortality Review Committee 2012

BEHAVIORS

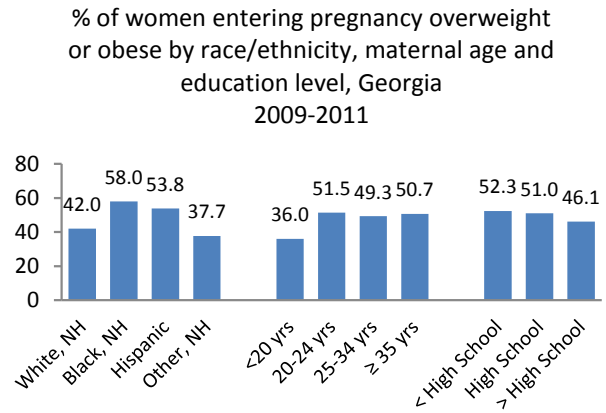


Figure 14

Source: PRAMS 2009-2011

Infant Mortality

Georgia's infant mortality rate declined from 2008 to 2010 by more than 25%. From 2010 to 2013, the infant mortality rate increased from 6.3 to 7.2. The Healthy People 2020 objective for the infant mortality rate is 6.0

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

Approximately half (53.1%) of Georgia's infants were placed to sleep on their back in 2011. The Healthy People 2020 objective for this measure is 75.9%. 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% of White mothers reported placing their infant on their side or stomach while approximately 57.0% of Black and Hispanic mothers did.

TREND OVER TIME

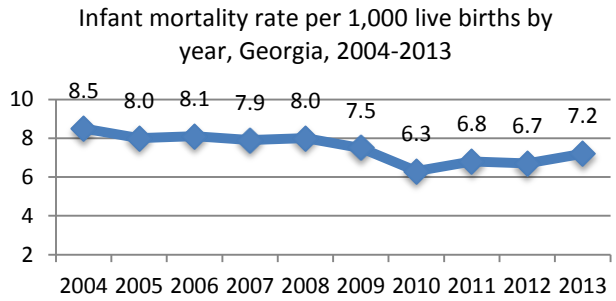


Figure 15

Source: OASIS state.ga.us

DEMOGRAPHIC/EQUITY

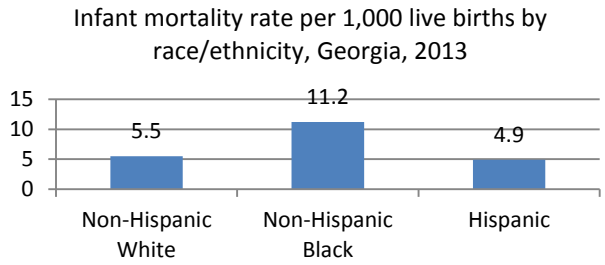
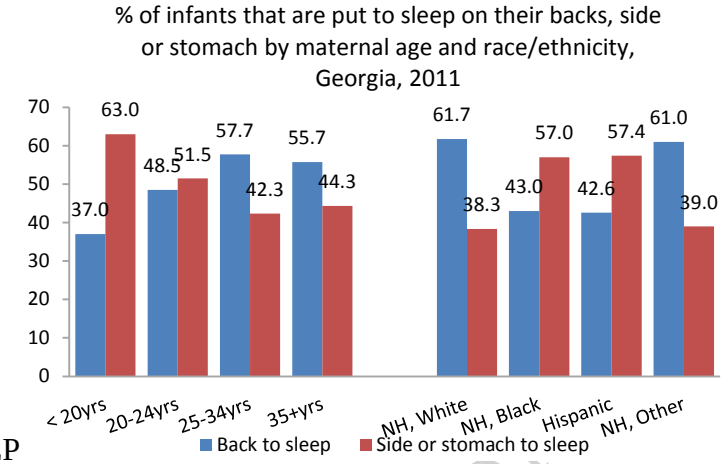


Figure 16

Source: OASIS state.ga.us



BEHAVIORS: SAFE SLEEP

Figure 17

Source: PRAMS 2011

Children and Youth with Special Health Care Needs

In 2009-2010, 17.4% 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% of the federal poverty level. The percentage decreased as income level decreased. Only 12.2% of CYSHCN adolescents received care in a well-functioning system compared to 21.0% 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.

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% of Hispanic CYSHCN across the nation reported receiving services, only 14.0% did in Georgia. Among Non-Hispanic Whites, 43.6% indicated receiving transition services. Parents with a higher education reported that their children received transition services more often than parents with lower educational attainment.

DEMOGRAPHIC/EQUITY

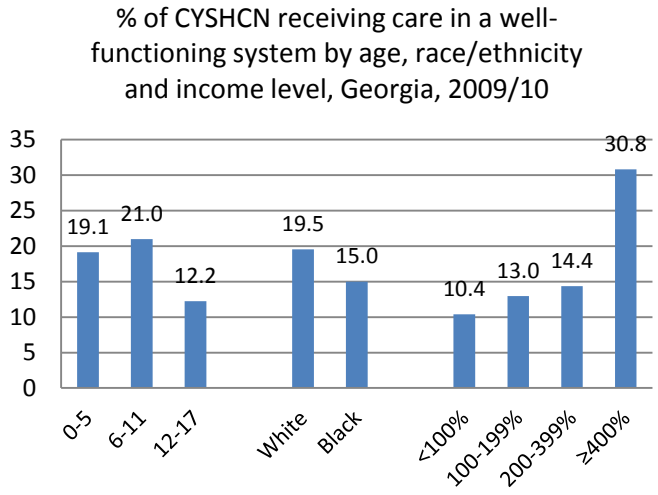


Figure 18

Source: National Survey of Children with Special Health Care Needs 2009/10

BEHAVIORS

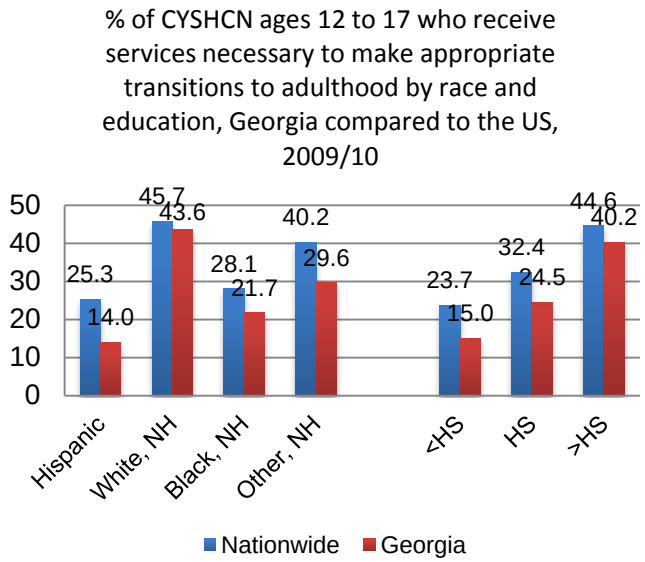


Figure 19

Source: National Survey of Children with Special Health Care Needs 2009-2010.

Oral Health

In 2011-2012, 18.6% of Georgia's children had decayed teeth or cavities. In the same year, the US average was 19.4%. The highest percentage of tooth decay was reported among Non-Hispanic Black children (24.7%) while the lowest was reported among Non-Hispanic White children (13.2%). The percentage among Hispanic children (23.7%) was very similar to non-Hispanic Blacks. More than 20.0% of children over the age of six had oral health problems in 2011-2012, compared to only 9.8% of children ages 1 to 5. Due to changes in survey methodology, trend data for this measure is not available.

The percentage of children receiving a preventive dental visit in the past year decreased from 80.3% in 2007 to 75.9% in 2011-2012. Georgia exceeded the national average of 78.4% in 2007, but was lower than the average of 75.9% 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%) compared to both the national estimate for Hispanic children (73.9%) and peers of other races in Georgia.

DEMOGRAPHIC/EQUITY

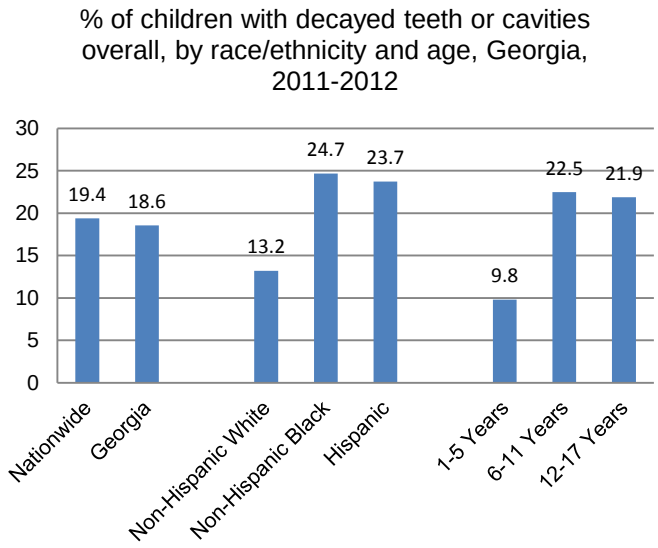


Figure 20

Source: NSCH 2011-2012

BEHAVIORS

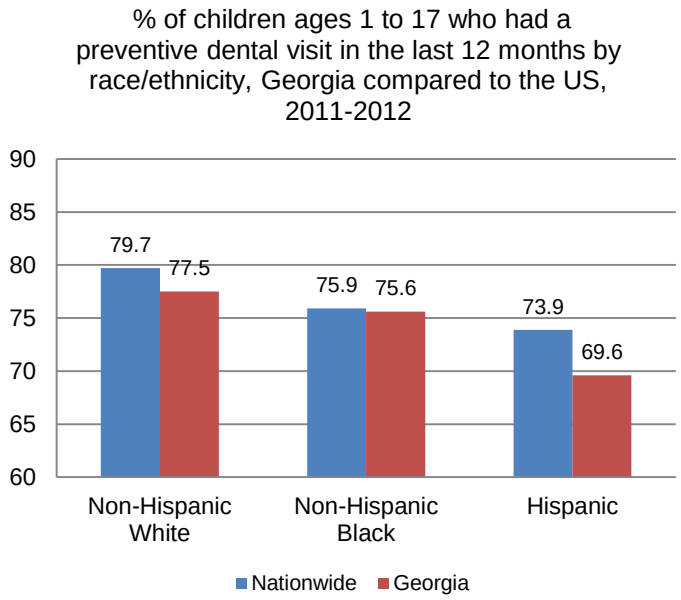


Figure 21

Source: NSCH 2011-2012

Chronic Disease

Cancer Incidence, All Sites

From 2000-2011, overall cancer incidence rates remained slightly higher among males in Georgia compared to U.S. males but they have been following a similar downward trend. The rates for U.S. males decreased by 0.6% 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 % per year from 2008-2011.

From 2000-2011, overall cancer incidence rates remained slightly lower among females in Georgia as compared to U.S. females. The rates for U.S. females decreased slightly by about 0.2 % per year from 2000-2011. Among Georgia females, rates remained steady during 2000-2011.

TREND OVER TIME, MALES

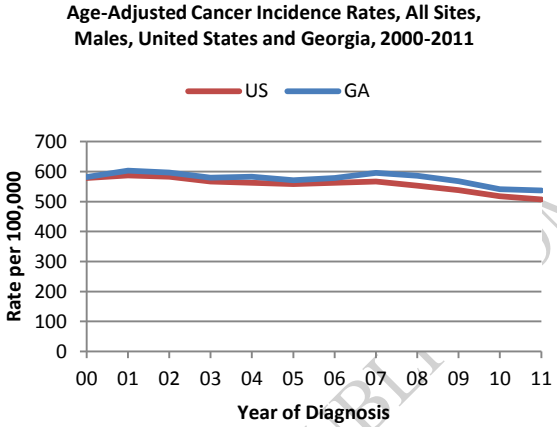


Figure 22

TREND OVER TIME, FEMALES

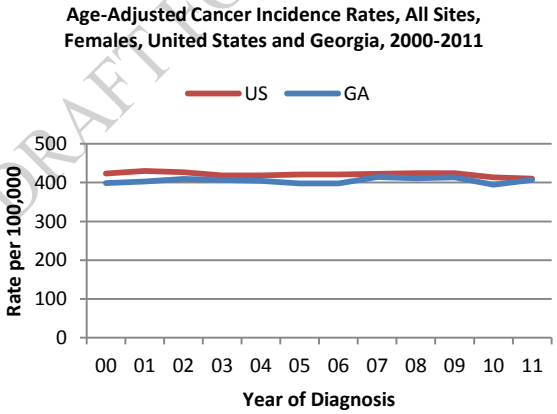
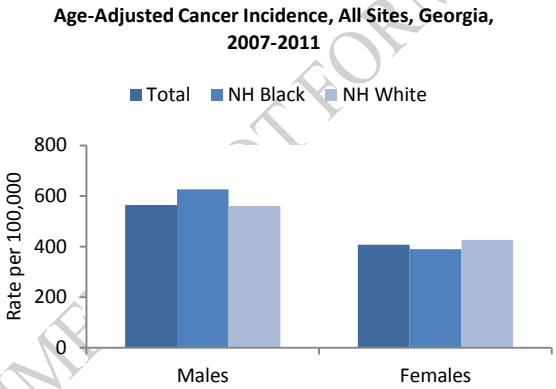


Figure 23

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.)



RATES BY SEX AND RACE/ETHNICITY

Figure 24

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Lung & Bronchus Cancer Incidence, Males

From 2000-2011, lung and bronchus cancer incidence rates remained higher among males in Georgia as compared to U.S. males but they have been following a similar downward trend. The rates for U.S. males decreased by about 1.4%per year from 2000-2008 followed by a more rapid decline of 4.0%per year from 2008-2011. Among Georgia males, rates declined by about 2.6%per year from 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% of invasive lung and bronchus cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 16% of cancers among NH white males. Lung and bronchus cancer was diagnosed at a late stage (regional or distant) for 85% of NH black males and 79% of NH white males. These numbers were very similar to those for U.S. males.

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

TREND OVER TIME

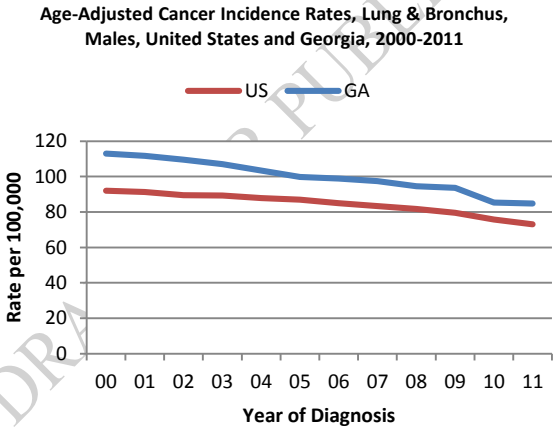


Figure 25

STAGE AND SURVIVAL

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Distribution of Stage at Diagnosis, Lung & Bronchus Cancer, 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%

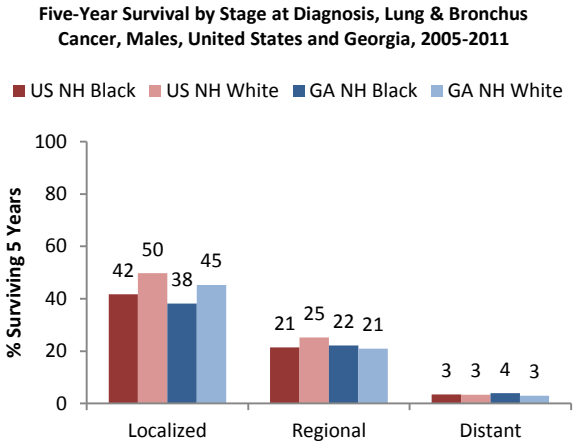


Figure 26

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Lung & Bronchus Cancer Incidence, Females

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

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% of invasive lung and bronchus cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 20% of cancers among NH white females. Lung and bronchus cancer was diagnosed at a late stage (regional or distant) for 82% of NH black females and 76% of NH white females. These numbers were very similar to those for U.S. females.

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

TREND OVER TIME

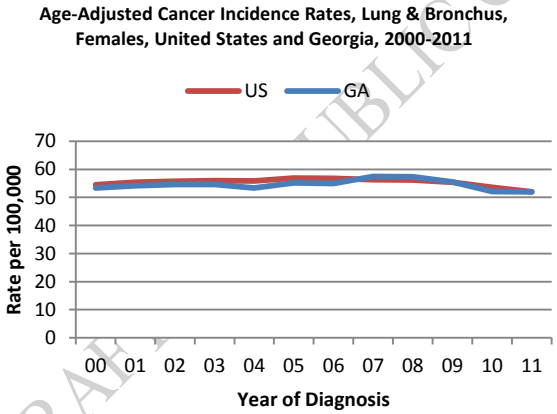


Figure 27

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Lung & Bronchus Cancer, Females, United States and Georgia, 2005-2011

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data accessed through 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 (1973-2012 varying) - 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.

	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%

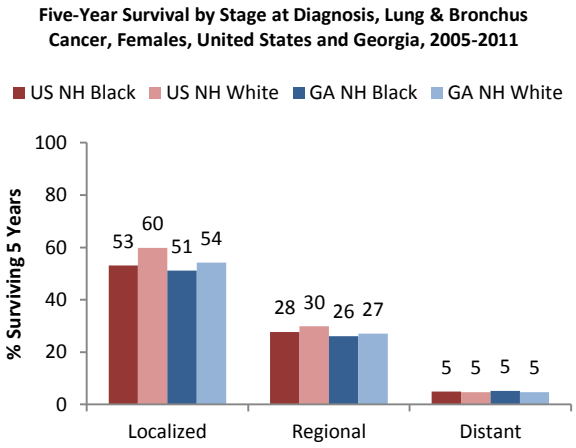


Figure 28

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. 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 (1973-2012 varying) - 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.

Colorectal Cancer Incidence, Males

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

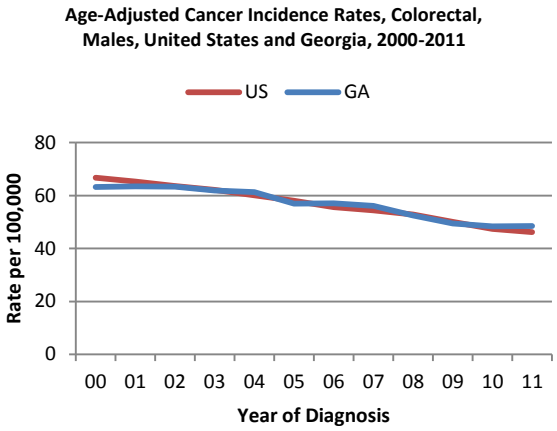
Stage of disease refers to the extent to which cancer has spread when diagnosed. The earlier the stage of detection, the better the chance of survival. In Georgia from 2005-2011, 38% of invasive colorectal cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 40%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

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

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

520 TREND OVER TIME



521

522 *Figure 29*

523 STAGE AND SURVIVAL

524

525 Distribution of Stage at Diagnosis, Colorectal Cancer, Males,
526 United States and Georgia, 2005-2011

527

	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%

528

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

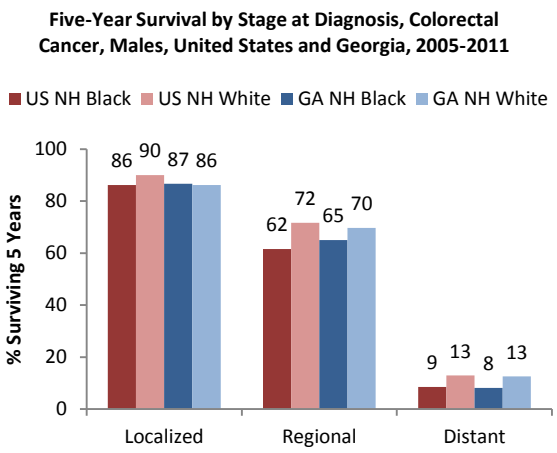


Figure 30

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Colorectal Cancer Incidence, Females

From 2000-2011, colorectal cancer incidence rates among females in Georgia were similar to those for U.S. females and have been following a similar trend. The rates for U.S. females decreased by 2.3% per year from 2000-2007 followed by a more rapid decline of 4.1% per year from 2007-2011. Among Georgia females, rates decreased by about 2.2 % per year from 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% of invasive colorectal cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 40% of cancers among NH white females. Colorectal cancer was diagnosed at a late stage (regional or distant) for 56% of NH black females and 56% of NH white females. These numbers were very similar to those for U.S. females.

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

TREND OVER TIME

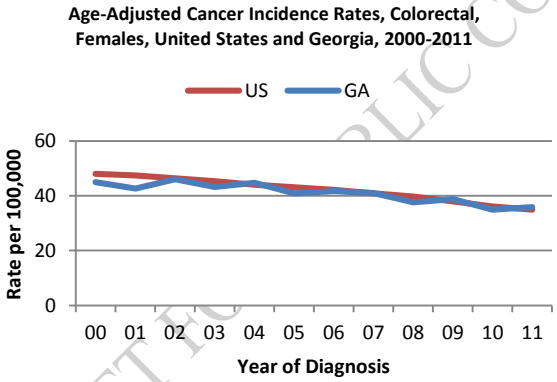


Figure 31

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Colorectal Cancer, Females, United States and Georgia, 2005-2011

	United States	**Georgia**

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data access through 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 (1973-2012 varying) - 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.

	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%

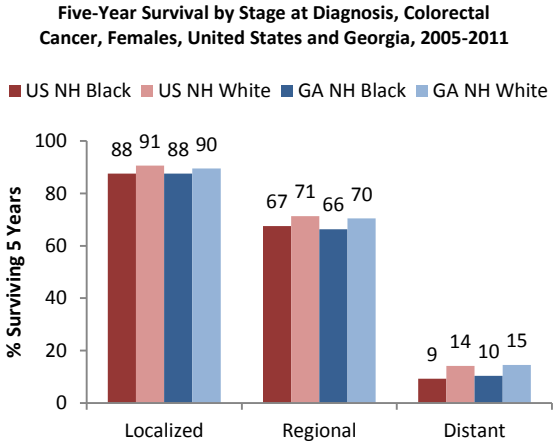


Figure 32

NH=non-Hispanic

Colorectal Cancer Screening (BRFSS, 2011-2013)

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 ten years. The overall colorectal cancer screening rate among Georgia adults aged 50 and older was 63%. 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 % vs. 30%). Adults over age 65 are likely to be insured by

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Medicare; hence there were not enough respondents in the uninsured category to display a comparison.

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% vs. 66 and 74%, respectively)

SCREENING BY SEX

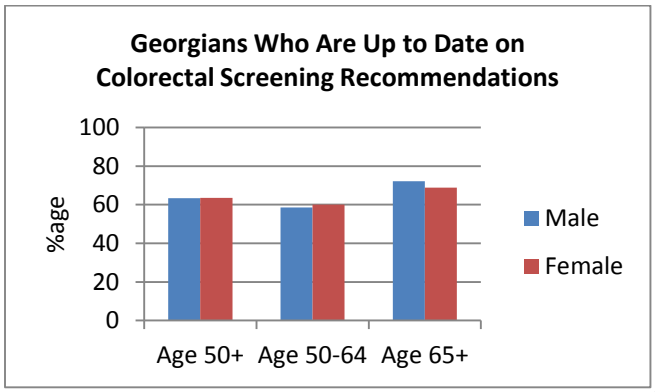


Figure 33

SCREENING BY HEALTH INSURANCE STATUS

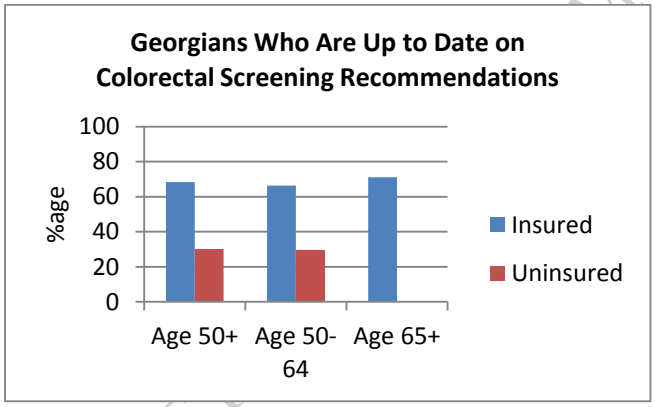
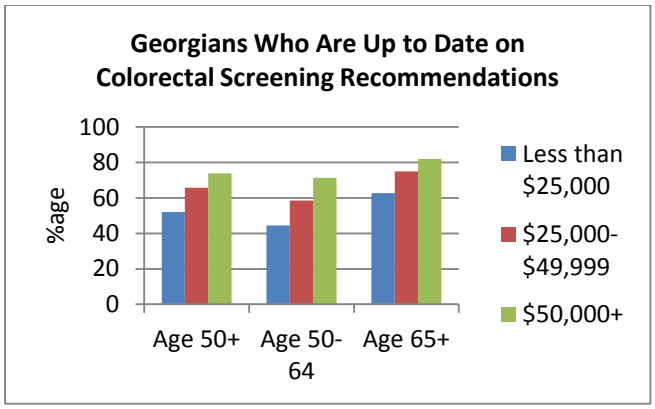


Figure 34

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data accessed through 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 (1973-2012 varying) - 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.



586
587 SCREENING BY INCOME LEVEL
588 *Figure 35*
589
590

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data accessed through 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 (1973-2012 varying) - 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.

Melanoma Incidence, Males

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

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% of invasive melanomas diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 84% of cancers among NH white males. Melanoma was diagnosed at a late stage (regional or distant) for 52% of NH black males and 13% of NH white males. These numbers were similar to those for U.S. males.

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

TREND OVER TIME

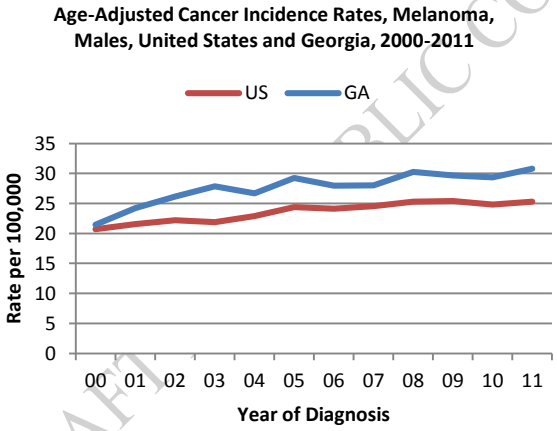


Figure 36

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Melanoma, Males, United States and Georgia, 2005-2011

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data accessed through 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 (1973-2012 varying) - 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.

	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%

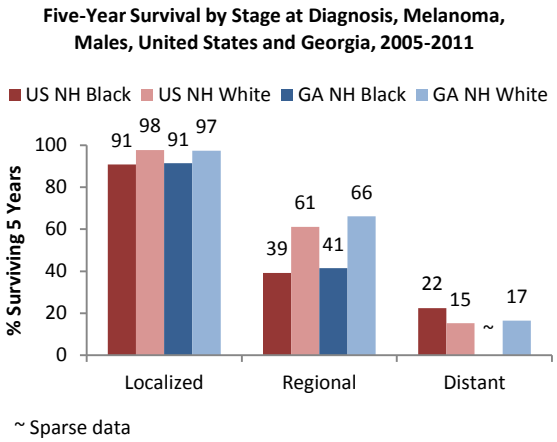


Figure 37
Melanoma Incidence, Females

From 2000-2011, melanoma incidence rates among females in Georgia were generally higher than those for U.S. females and both experienced an upward trend during the past decade. The rates for U.S. females increased by 3.0% per year from 2000-2006 followed by relatively steady rates from 2006-2011. Among Georgia females, rates increased by about 1.8% per year from 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% of invasive melanomas diagnosed among non-Hispanic (NH) black females were at the localized stage

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

compared to 87% of cancers among NH white females. Melanoma was diagnosed at a late stage (regional or distant) for 31% of NH black females and 8% of NH white females. These numbers were similar to those for U.S. females.

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

TREND OVER TIME

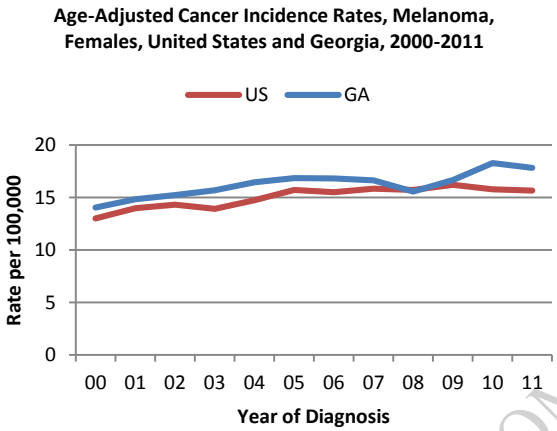


Figure 38

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Melanoma, 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%
Unkno	5%	3%	4%	4%

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

wn/Un staged

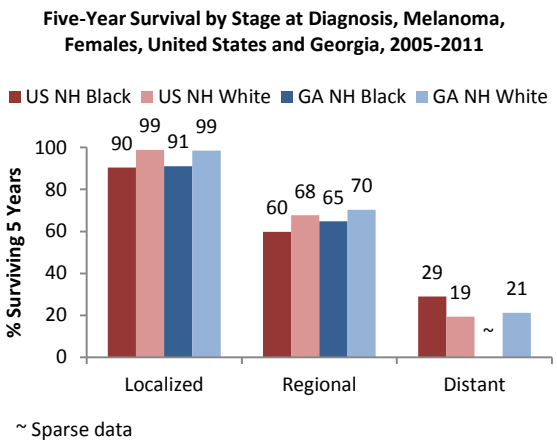


Figure 39

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

Prostate Cancer Incidence, Males

From 2000-2011, prostate cancer incidence rates among males in Georgia were generally higher than those for U.S. males but both have been following a downward trend. The rates for U.S. males decreased by 2.4% per year from 2000-2011. Among Georgia males, rates decreased by 1.2% per year from 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% of invasive prostate cancers diagnosed among non-Hispanic (NH) black males were at the localized stage compared to 86% of cancers among NH white males. Prostate cancer was diagnosed at a late stage (regional or distant) for 11% of both NH black and NH white males. These numbers were slightly better than those for U.S. males.

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

TREND OVER TIME

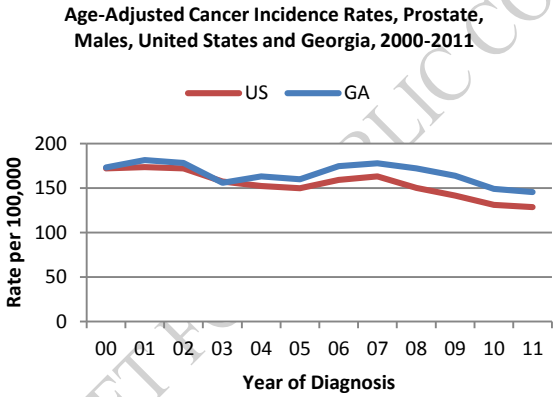


Figure 40

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Prostate Cancer, Males, United States and Georgia, 2005-2011

	United States	**Georgia**

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data accessed through 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 (1973-2012 varying) - 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.

	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%

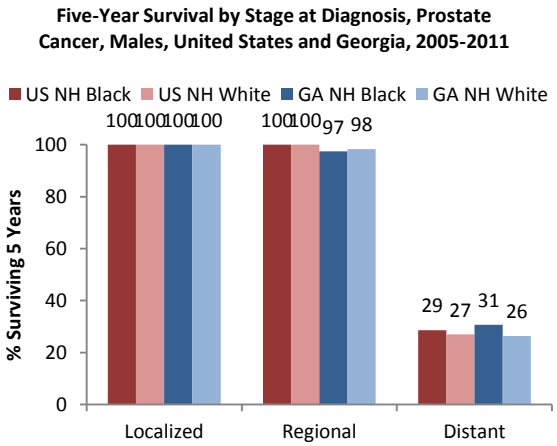


Figure 41

Breast Cancer Incidence, Females

From 2000-2011, breast cancer incidence rates among females in Georgia were similar to those for U.S. females and both have remained somewhat steady. The rates for U.S. females decreased by 2.5% per year from 2000-2004 and remained steady from 2004-2011. Among Georgia females, rates remained steady from 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% of invasive breast cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 63% of cancers among NH white females. Breast cancer was diagnosed at a late stage (regional or distant) for 46% of NH black females and 35% of NH white females. These numbers were very similar to those for U.S. females.

Sources:

1. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
2. Georgia Comprehensive Cancer Registry Data access through 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 (1973-2012 varying) - 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.

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

TREND OVER TIME

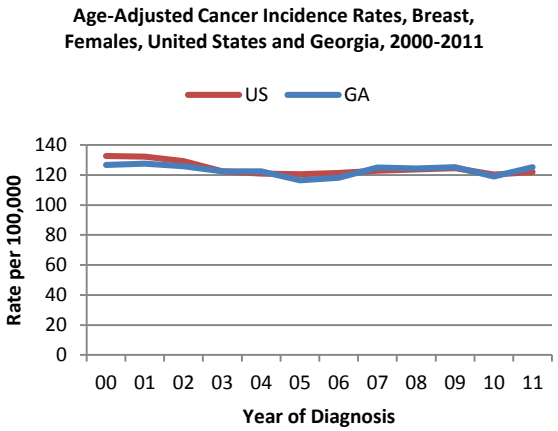


Figure 42

STAGE AND SURVIVAL

Distribution of Stage at Diagnosis, Breast Cancer, 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%

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

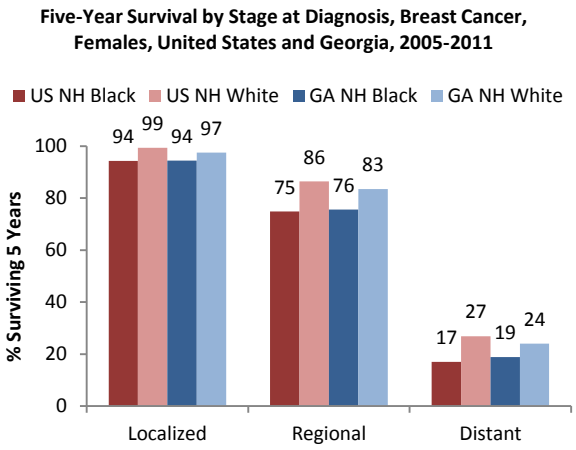


Figure 43
NH=non-Hispanic
Breast Cancer Screening (BRFSS, 2011-2013)

Overall 75.3% of Georgia women 40 years and older reported having a mammogram within the past two years. 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.

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% vs. 43%). 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.

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% vs. 77 and 82%, respectively).

SCREENING BY RACE/ETHNICITY

Sources:

3. United States Cancer Statistics: 1999-2011, WONDER Online Database. United States Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2014.
4. Georgia Comprehensive Cancer Registry data were accessed through the 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 (1973-2012 varying) - 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.

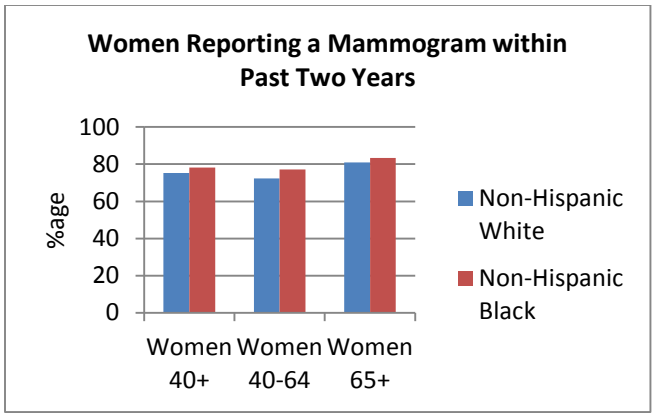


Figure 44

SCREENING BY HEALTH INSURANCE STATUS

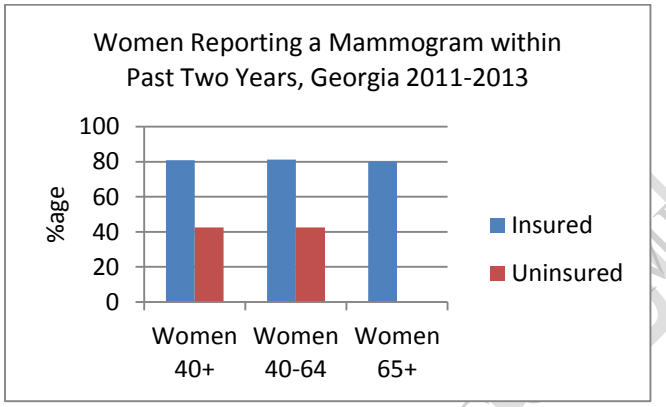
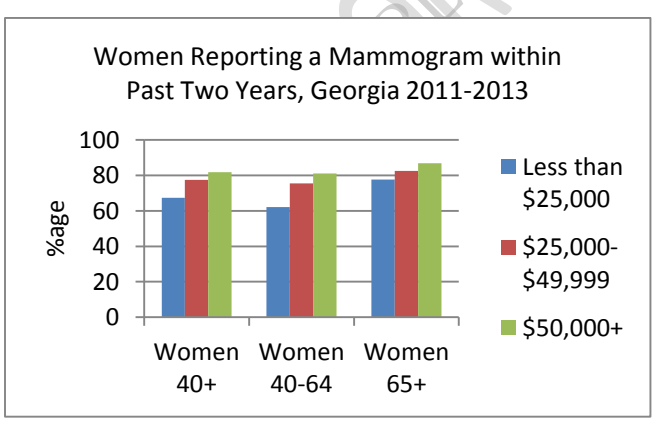


Figure 45



SCREENING BY INCOME LEVEL

Figure 46

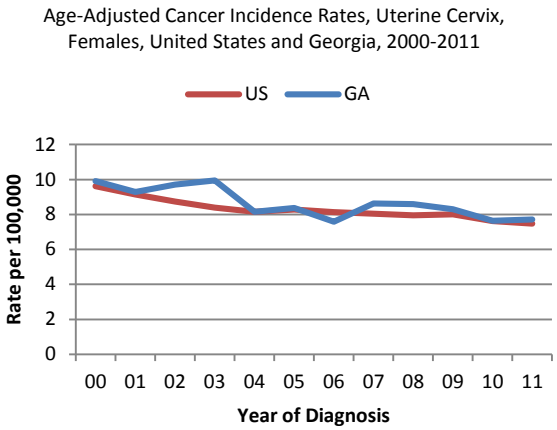
Cervical Cancer Incidence, Females

From 2000-2011, cervical cancer incidence rates among females in Georgia were generally similar to those for U.S. females and both have been following a downward trend. The rates for U.S. females decreased by 4.3% per year from 2000-2003 followed by a more modest decrease of 1.2% per year from 2003-2011. Among Georgia females, rates decreased by about 2.2% per year from 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% of invasive cervical cancers diagnosed among non-Hispanic (NH) black females were at the localized stage compared to 48% of cancers among NH white females. Cervical cancer was diagnosed at a late stage (regional or distant) for 60% of NH black females and 48% of NH white females. These numbers were similar to those for U.S. females.

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

762 TREND OVER TIME



763

764 *Figure 47*

765 STAGE AND SURVIVAL

766

767 Distribution of Stage at Diagnosis, Cervical Cancer, Females,
768 United States and Georgia, 2005-2011

769

	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%

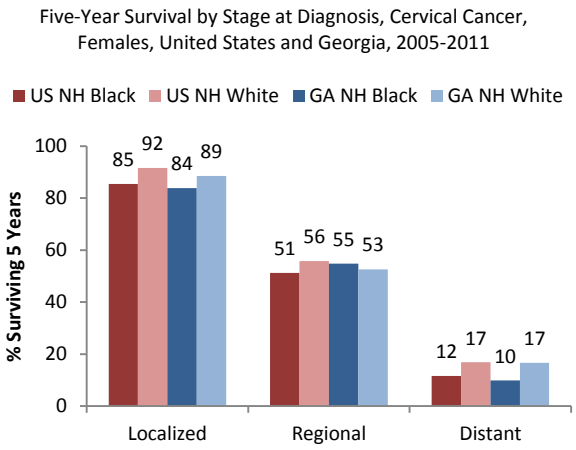


Figure 48

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% reported that their most recent Pap test was within three years. The cervical cancer screening rate was slightly higher for non-Hispanic black women than for non-Hispanic white women (81% vs. 90%).

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% vs. 73%).

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% vs. 87 and 90 %, respectively).

SCREENING BY RACE/ETHNICITY

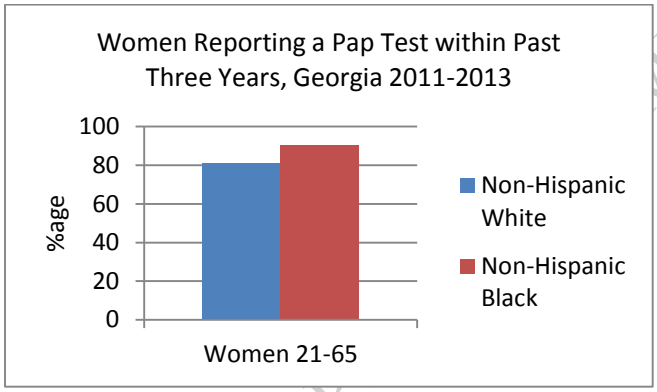


Figure 49

SCREENING BY HEALTH INSURANCE STATUS

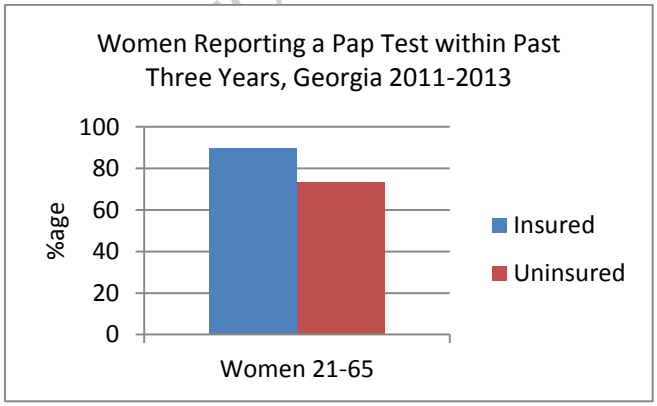
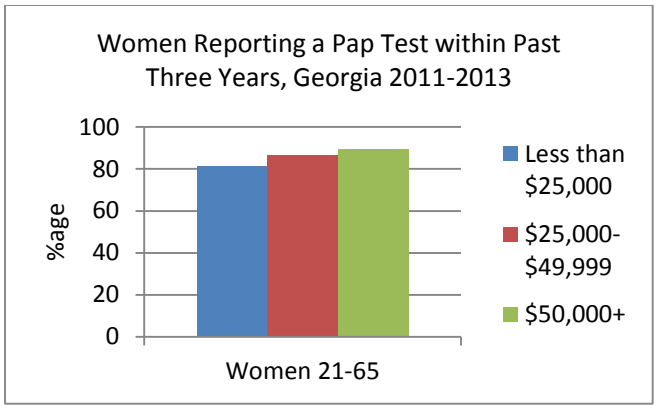


Figure 50



SCREENING BY INCOME LEVEL

Figure 51

Asthma

During 2013, the prevalence of asthma among Georgia children was 10.8%[1] and that in adults was 8.4%[2].

Among Georgia children, asthma was more common in boys (12.6%) than girls (8.9%); in black children (16.7%) than white children (7.6%); and among those aged 5-9 years (14.1%) than children in other age categories.

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

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

ASTHMA PREVALENCE

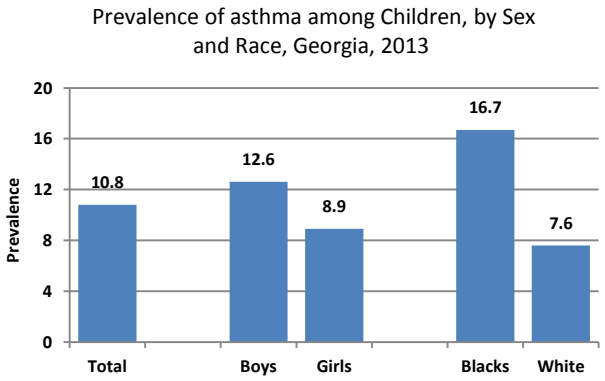


Figure 52

DEMOGRAPHIC/EQUITY

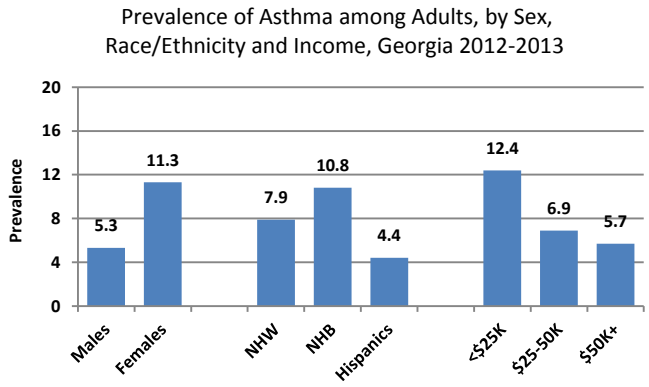


Figure 53

BEHAVIORS

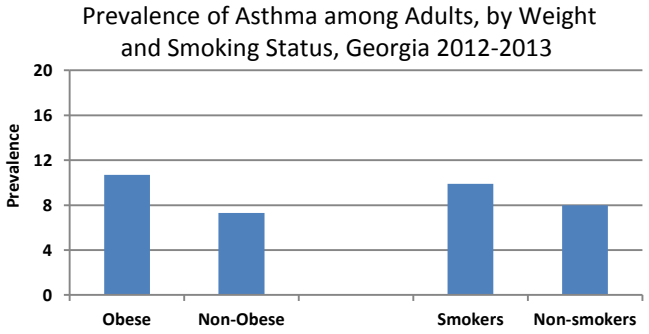


Figure 54

Georgia Behavioral Risk Factor Surveillance Survey (BRFSS), Child Asthma Module, 2013.
Georgia BRFSS, Adult Asthma Module, 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% of all the asthma ER visits while only 25% of Georgia population is in this age category. 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.

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.

TREND

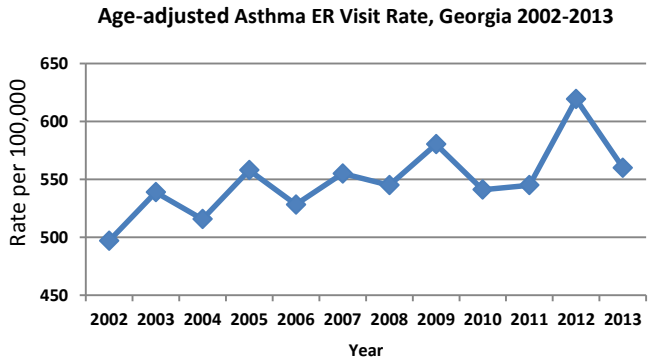


Figure 55

TREND

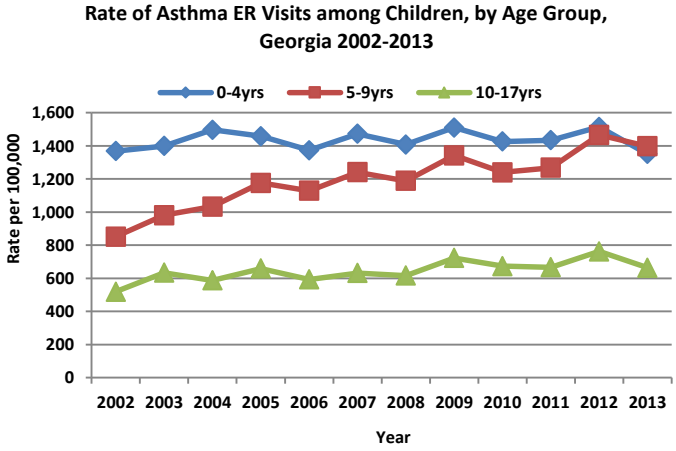
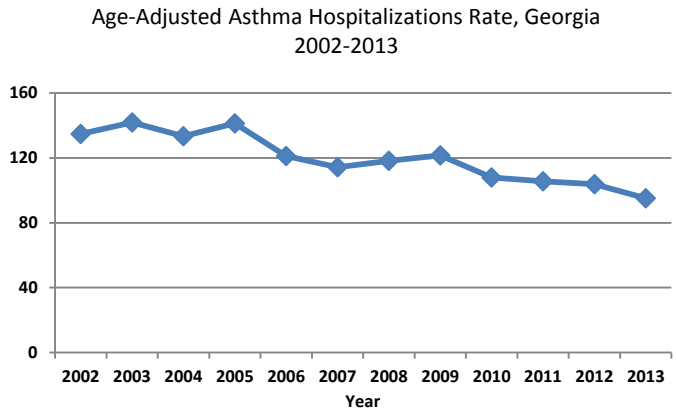


Figure 56

TREND



858
859 *Figure 57*
860 1. Georgia Hospital Discharge data, 2002-2013(Emergency Room Visits)
861 2. Georgia Hospital Discharge data, 2002-2013 (Inpatient)
862

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% (91,772) had a diagnosis of ADRD. Among this population, ADRD was more common in older adults, females and whites
During 2013, among Medicare beneficiaries with ADRD in Georgia, approximately 20,670 died. Of the beneficiaries with ADRD who died, approximately 30% 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.

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. The South (Valdosta) and Southeast (Waycross) Public Health Districts had ADRD prevalence exceeding 7%.

During 2013, 12.2 % 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). In Georgia during 2013, experiencing ICML was not significantly different by sex or race, although, the prevalence was higher among females and blacks.

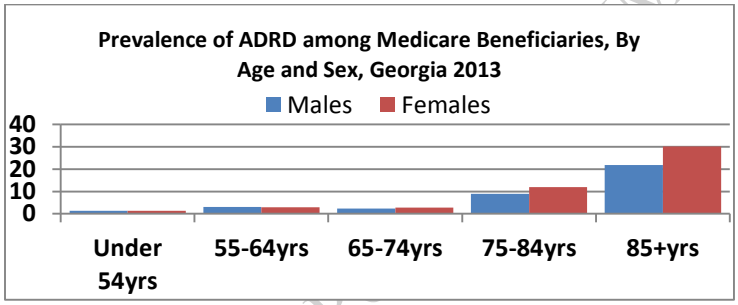


Figure 58

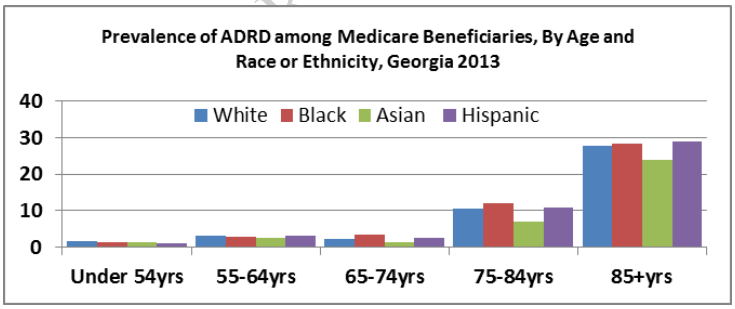


Figure 59

Prevalence of ADRD among Medicare Beneficiaries in Georgia, by Public Health District, Georgia, 2013

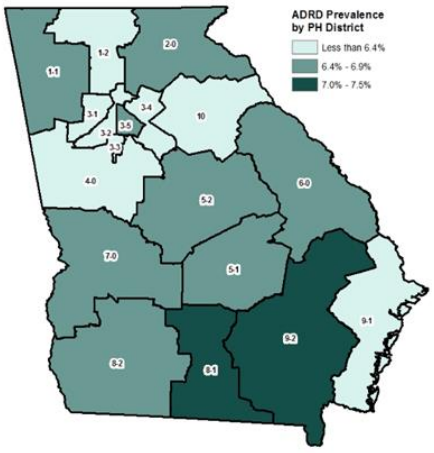


Figure 60

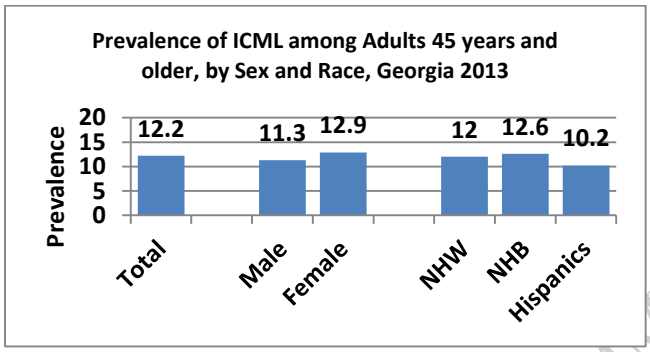


Figure 61

The prevalence of ICML was significantly higher among those making less than $35,000 per year (19%) than those whose annual household income was $50,000 or more (6.4%).

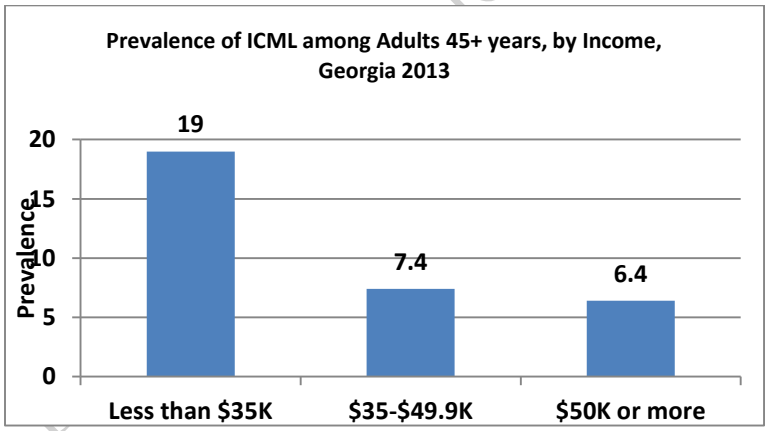


Figure 62

1. Center for Medicare and Medicaid Services
2. Georgia Hospital Discharge data, 2013 (Inpatient)
3. Georgia Behavioral Risk Factor Surveillance Survey (BRFSS), 2013

Cardiovascular Disease

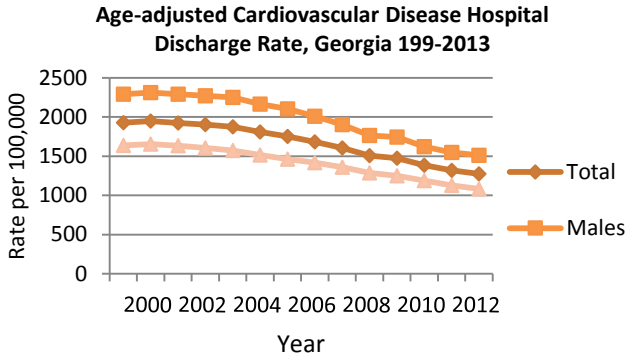
Between 2000 and 2013, there were over 1.8 million cardiovascular disease (CVD) hospital discharges. During this time CVD hospitalization rate decreased in both males and females. In 2013, the age-adjusted CVD hospitalization rate was 1509.3 per 100,000 persons accounting for over 125,000 CVD discharges.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

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

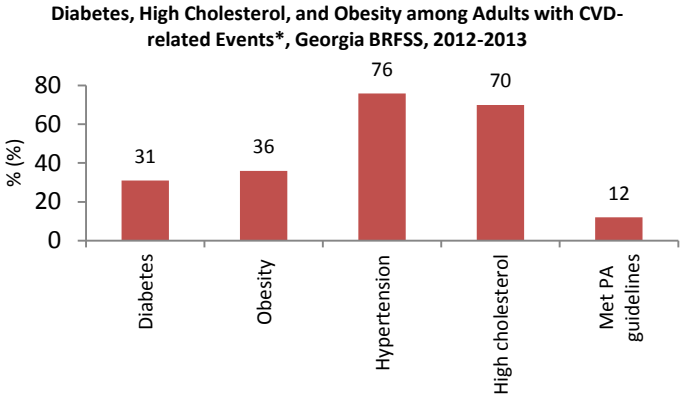
Among Georgia adults with CVD-related events*, the prevalence of smoking was 19.7% (vs. 19.5% for adults without CVD-related events); Tobacco Use was 23.4% (vs. 22.5%); Diabetes was 30.8% (vs. 8.7%); Obesity was 35.9% (vs. 29.1%); Hypertension was 76.4% (vs. 31.5%); High cholesterol was 69.6% (vs. 35.4%);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

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

Sociodemographic	CVD Prevalence (%)
Sex	
Males	9.1
Females	7.5
Race/Ethnicity	
Non-Hispanic White	9.2
Non-Hispanic Black	8.1
Hispanic	3.6
Age	
35-44 yr.	3.0
45-54 yr.	7.6
55-64 yr.	14.0
64-74 yr.	20.7
75+ yr.	29.9
Income	
Less than $25,000	11.8
$25,000-49,999	8.1
$50,000 or more	5.1
Education	
Less than High School	12.9
High School Graduate	9.3
Some College	7.5
College Graduate	4.6



928
929 *Figure 63*
930



931
932 *Figure 64*
933

Stroke Hospitalization

Stroke is a medical emergency and stroke hospitalization rate is a proxy measure for the incidence of stroke in the general population. In the last ten years, from 2004 to 2013, the trend shows 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 treatment.

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%) 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% of stroke patients had hypertension, 43% had dyslipidemia, 35% had diabetes and 23% had coronary artery disease, 14% had atrial fibrillation/flutter and 22% smoked at the time of their stroke event.

TREND OVER TIME

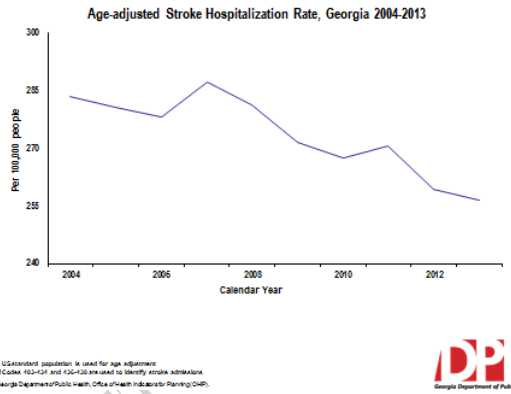


Figure 65

DEMOGRAPHIC/EQUITY

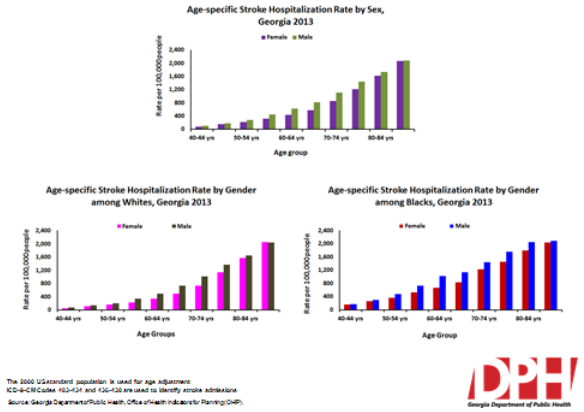


Figure 66

BEHAVIORS

The most frequent co-morbidities among stroke patients, GCASR, 2013 (n=15,977)

Co-morbidity	%
Hypertension	81%
Dyslipidemia	43%
Diabetes mellitus	35%
Coronary artery disease	23%
Atrial fibrillation/flutter	14%
Smoking	22%

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).

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

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

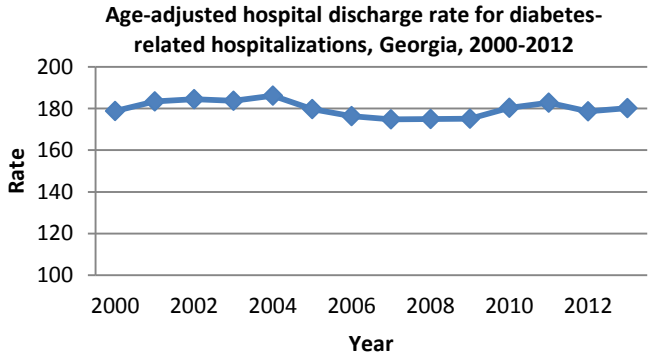


Figure 67

Sociodemographic	Diabetes Prevalence (%)
Age	
18 – 24 years	2.3
65 - 74 years	25.8
Sex	
Male	10.3
Female	10.6
Race	
NH White	9.7

NH Black	12.5
Education level	
<High school	14.3
College graduate	7.5
Insurance status	
Has insurance plan	11.5
No insurance plan	6.8
Household income level	
<$15,000	13.1
≥ $75,000	7.8

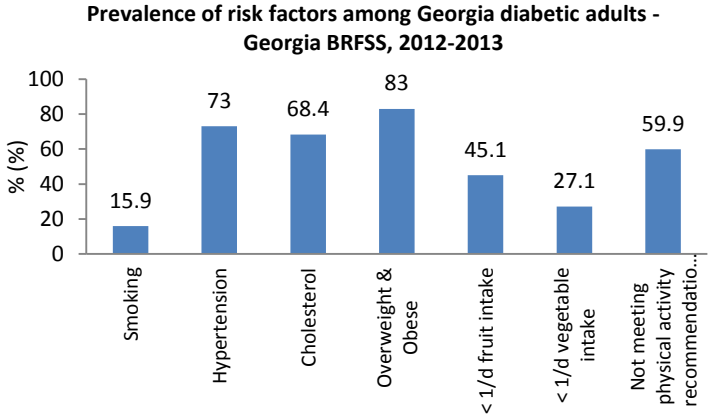


Figure 68

1. Georgia Hospital Discharge data, 2000-2013, (Inpatient)
2. Georgia Behavioral Risk Factor Surveillance Survey (BRFSS), 2012-2013

993 **Chronic Disease Risk Factors**
994

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%. During 2012-2013, approximately 29.6% of Georgia adults were obese. Adults age 18-24 years (17.7%) were least likely to be obese when compared to adults age 25 years and older.

Among adults, obesity was higher in females (30.9%) than males (28.3%); Non-Hispanic Black (37.2%) were significantly more likely to be obese when compared to NH White (26.7%); those with no insurance coverage (31.2%); and those making $25,000 or less (33.5%) than those making $50,000 or more (26.9%) per year.

Obesity was less likely among adults with a college degree (23.7%) when compared to adults with less than a high school degree (31.6 %.).

Sociodemographic	Obesity Prevalence (%)
Sex	
Males	28.3
Females	30.9
Race	
NH White	26.7
NH Black	37.2
Hispanic	29.1
Insurance Status	
Insurance Coverage	29.2
No Insurance Coverage	31.2
Household Income Level	
Less than $25,000	33.5
$25,000 - $50,000	30.8
Greater than $50,000	26.9

AGE GROUP

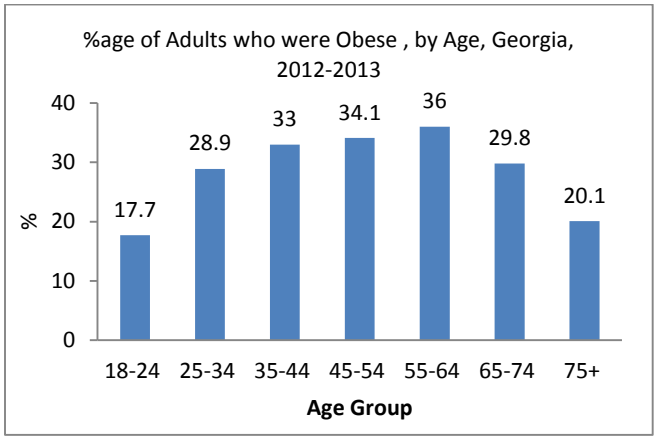


Figure 69

EDUCATION LEVEL

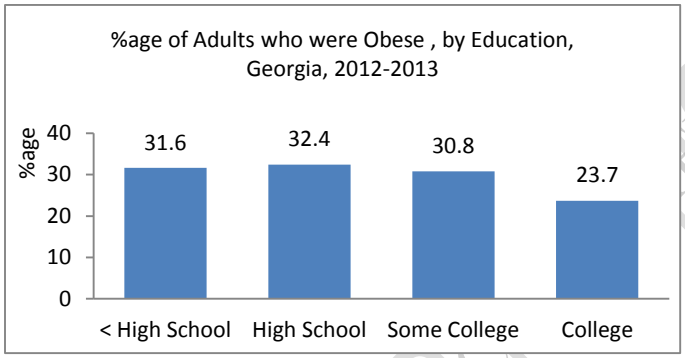


Figure 70

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% of Georgia adults met both the aerobic and muscle strengthening activities, while 27.2% of Georgia adults reported no leisure time physical activity. The proportion of adults who engaged in adequate physical activity decreases as age increases.

Adult males (26.4%) were significantly more likely than females (16.8%) to engage in physical activity. Hispanic (12.9%) adults were significantly less likely to engage in adequate physical activity when compared to non-Hispanic White (21.5%) and non-Hispanic Black adults (21.7%). In 2013, adults with incomes less than $25,000 (15.9%) were less likely to engage in physical activity.

Georgia adults with less than high school education (12.5%) were significantly less likely to engage in physical activity when compared to college graduate (27.4%).

AGE GROUP

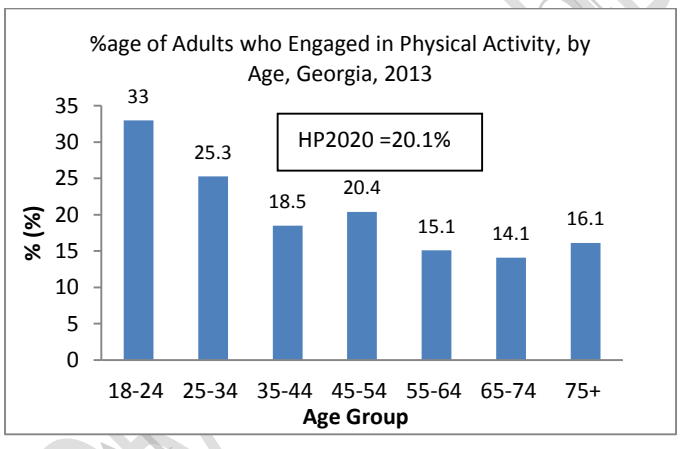


Figure 71

DEMOGRAPHIC/EQUITY

Sociodemographic	Adequate Physical Activity (%)
Sex	
Male	26.4
Female	16.8
Race	

NH White	21.5
NH Black	21.7
Hispanic	12.9
Insurance Status	
Has Insurance Coverage	20.8
No Insurance Coverage	18.5
Household Income Level	
Less than $25,000	15.9
$25,000 - $50,000	19.5
Greater than $50,000	24.9

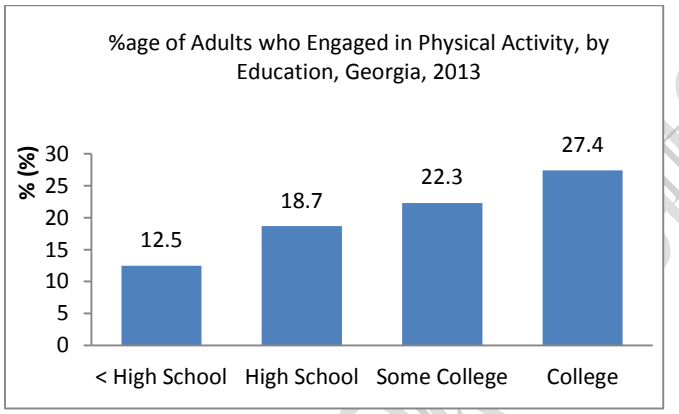


Figure 72

Current Cigarette Use

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% of deaths among Georgia adults are linked to smoking. During 2013, approximately 19.6% of Georgia adults were current smokers.

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

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

AGE GROUP

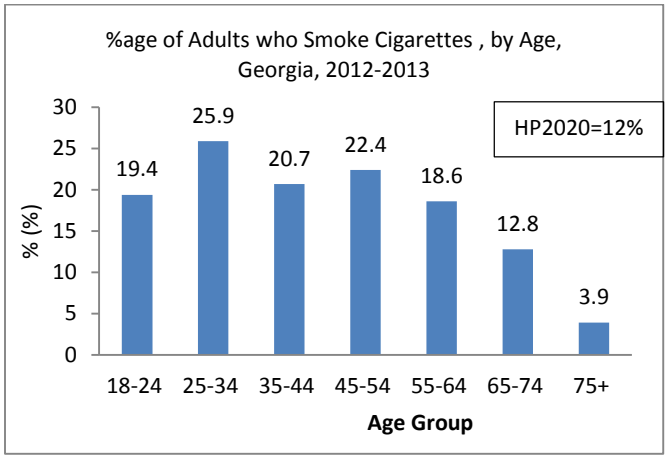


Figure 73

DEMOGRAPHIC/EQUITY

Sociodemographic	Currently Smoking (%)
Sex	
Male	23
Female	16.4
Race	
NH White	21
NH Black	18.3
Hispanic	16.4
Insurance Status	
Has Insurance Coverage	15.5
No Insurance Coverage	33.5
Household Income Level	
Less than $25,000	28.9
$25,000 - $50,000	21
Greater than $50,000	11.9

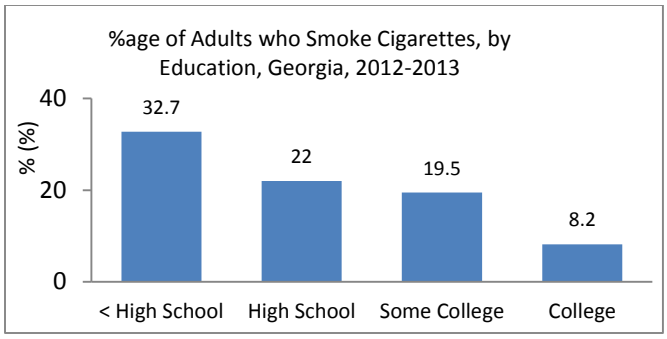


Figure 74

Infectious Disease

Infectious Disease: Pneumococcal Disease Death

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 one million US adults get pneumococcal pneumonia each year. About 5% to7% of them will die, and the death rate is even higher in those age 65 years and older.

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.

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)

DEMOGRAPHIC/EQUITY

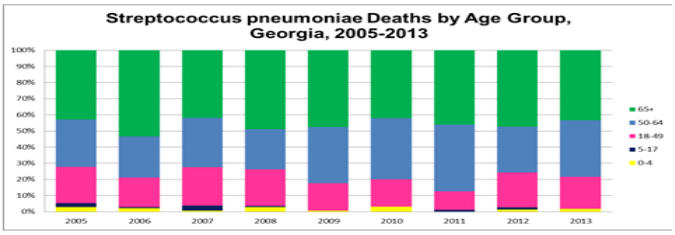


Figure 75

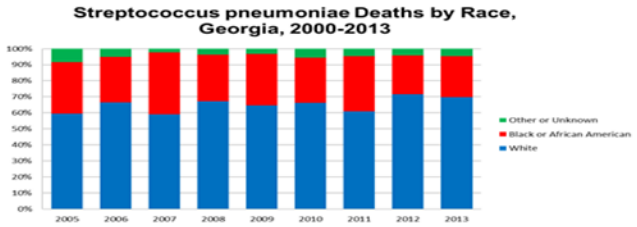


Figure 76

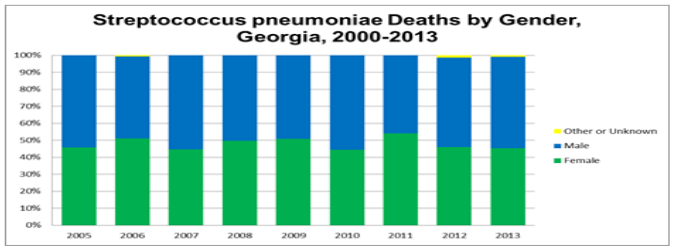


Figure 77

Infectious Disease: 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. 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.

The CDC estimates that 90%%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.

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)

TREND OVER TIME

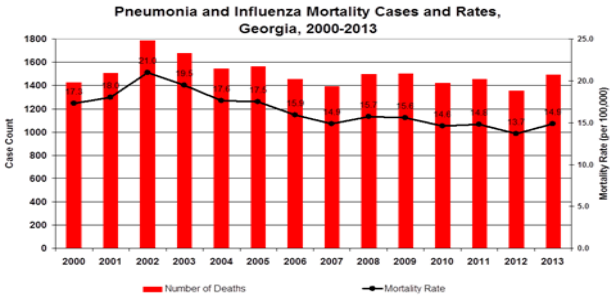
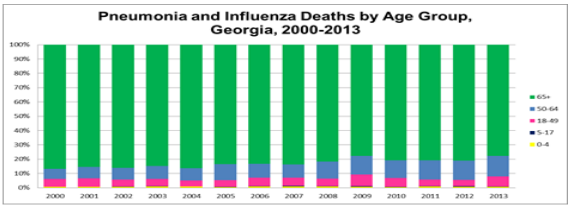
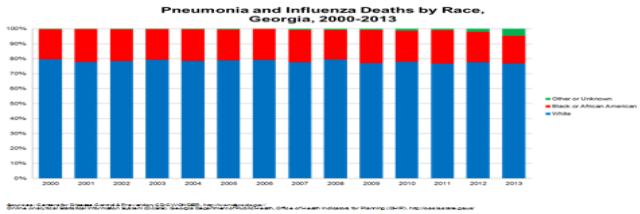


Figure 78

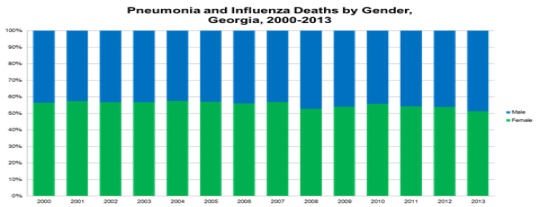
DEMOGRAPHIC/EQUITY



1161 Sources: Centers for Disease Control & Prevention (CDC) WONDER, http://wonder.cdc.gov/
1162 *Figure 79*



1163 Sources: Centers for Disease Control & Prevention (CDC) WONDER, http://wonder.cdc.gov/
1164 *Figure 80*



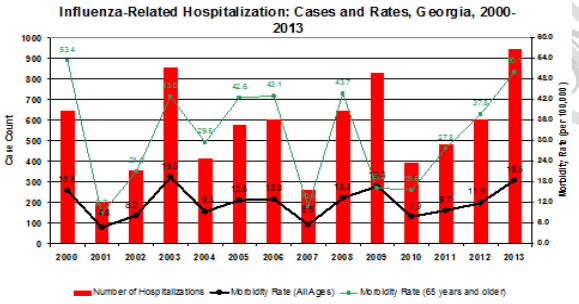
1165 Sources: Centers for Disease Control & Prevention (CDC) WONDER, http://wonder.cdc.gov/
1166 *Figure 81*
1167
1168
1169
1170
1171

Infectious Disease: 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. 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.

The CDC estimates that more than half of all flu-related hospitalizations occur in people age 65 and older. 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.

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).

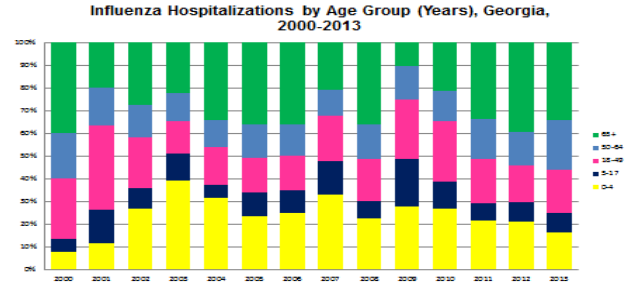


Source: Online Analytical Statistical Information System (OASIS), Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP), http://oasis.state.ga.us/

TREND OVER TIME

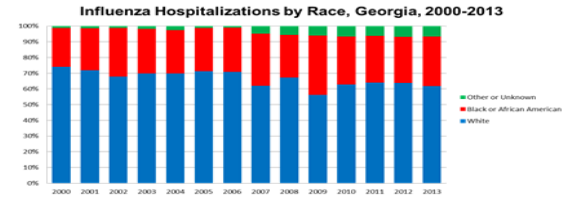
Figure 82

DEMOGRAPHIC/EQUITY



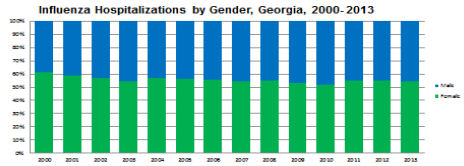
1196 Sources: Centers for Disease Control & Prevention (CDC) WONDER, http://wonder.cdc.gov/ ; Online Analytical Statistical Information System (OASIS), Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP), http://oasis.state.ga.us/

1197 *Figure 83*



1198 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/

1199 *Figure 84*



1200 Source: Online Analytical Statistical Information System (OASIS), Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP), http://oasis.state.ga.us/

1201 *Figure 85*

1202

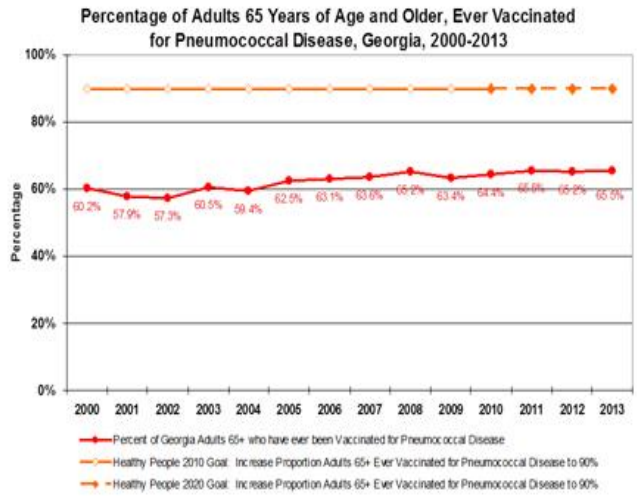
Infectious Disease: Adult Immunization for Pneumococcal Disease

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

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% to65% 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% of adults over 65 years vaccinated.

TREND OVER TIME



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 86

Infectious Disease: Adult Immunization for Seasonal Influenza

Data collected through the Georgia Behavioral Risk Factor Surveillance System (BRFSS) during the years 2000-2013 showed that about 55% to65% of Georgia adults 65 years of age and older were vaccinated against seasonal influenza in the last 12 months. These proportions are well under the national Healthy People 2010 and 2020 goals of having 90% of adults over 65 years vaccinated against flu every year.

TREND OVER TIME

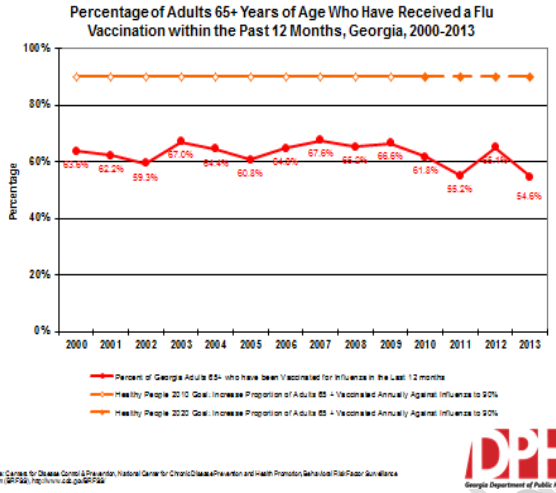


Figure 87

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. Graph 1.1 (right) 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). 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. Table 1.1 (right) shows the UTD immunization rate by 24 months of age, for children in the state of Georgia, stratified by race and ethnicity, from the 2014 GIS. Our total sample size was 2,243 children. Other combinations of race and ethnicity were either combined or left out due to small sample sizes. Table 1.2 (right) shows 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.

TREND OVER TIME

Graph 1.1
UTD Immunization Rates, based on ACIP recommendations
Georgia Immunization Study, 2010 – 2014

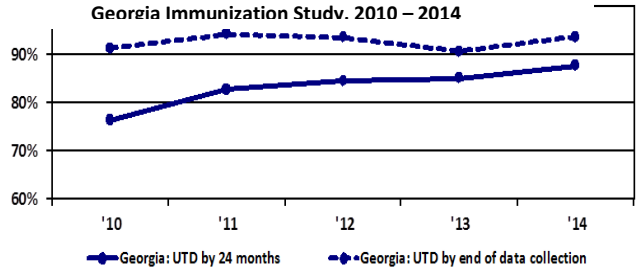


Figure 88

DEMOGRAPHIC/EQUITY

Table 1.1

Race/Ethnicity (n=2243)	UTD Immun. Rate by 24

	months of age
White, non-Hispanic (n=967)	85.8%
White, Hispanic (n=77)	90.9%
Black (n=808)	87.3%
Unspecified, Hispanic (n=171)	91.2%
Asian (n=58)	94.8%
Multiracial (n=31)	93.5%

BEHAVIORS

Table 1.2
Frequency of Reasons for Incomplete Immunizations by End of

Reason for Incomplete (n=2243)	No. of people
Delayed by Parent	41
Delayed by Physician	10
Medical Exemption	1
Missed Appts./Convenience Issue	31
Other	20
Parental Refusal	24
Religious Exemption	14
Temporary Vaccine Shortage	3

Sexual Transmitted Disease

Chlamydia

Chlamydia data does not necessarily represent the prevalence of the disease, but instead the level of screening for the disease as well as the introduction within the last few years of more sensitive testing available. 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.

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.

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.

TREND OVER TIME

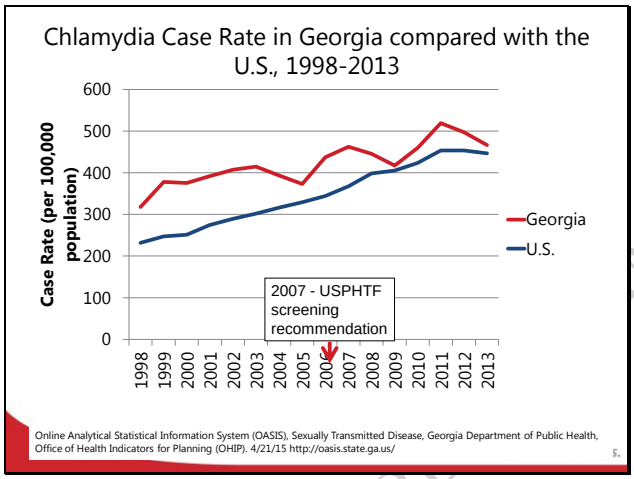


Figure 89

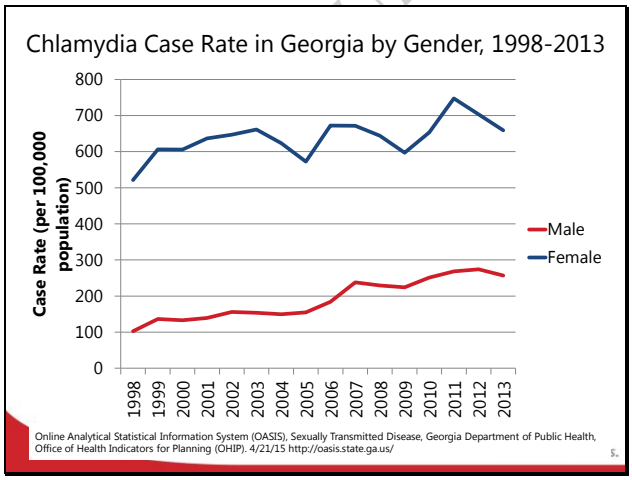


Figure 90

DEMOGRAPHIC/EQUITY

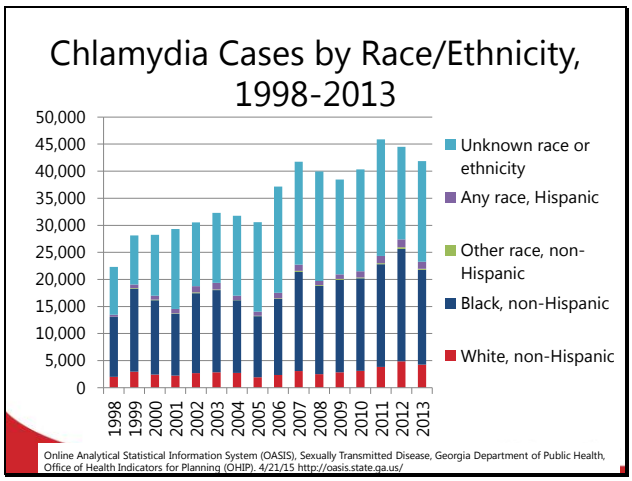


Figure 91

Syphilis

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 90's where elimination was discussed, there has been a steady rise in cases. The main forces causing the increase seem to be an increase in the use of internet sites to find anonymous partners and increases seen in the MSM population.

Across the country, it appears black, non-Hispanic males are most affected by primary and secondary syphilis and have shown increased case counts over the past several years.

There was a low of congenital syphilis cases in Georgia during 2005, but then a rise through 2013. There have been 2 to -21 cases 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.

TREND OVER TIME

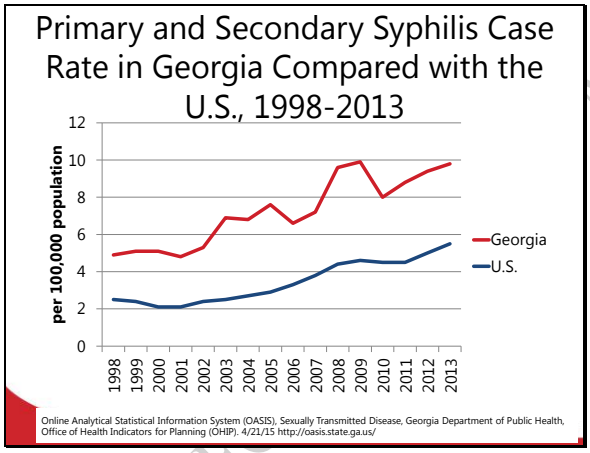


Figure 92

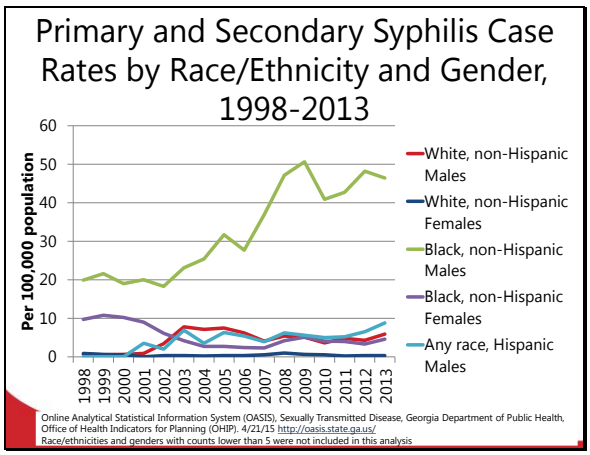


Figure 93

DEMOGRAPHIC/EQUITY

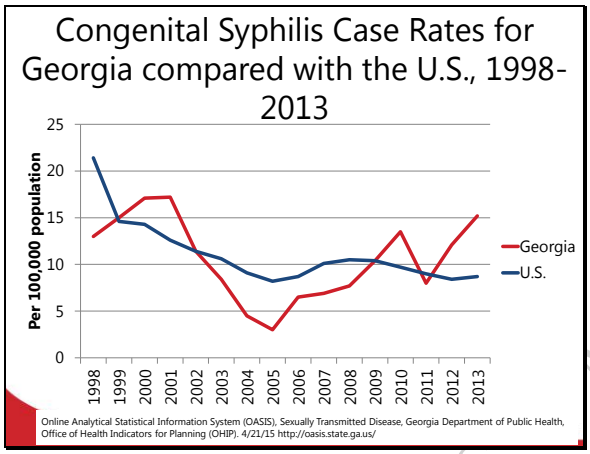


Figure 94

Gonorrhea

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

Gonorrhea primarily affects those age 15 to 24 years. There are new screening recommendations to ensure sexually active women under 25 years old are screened annually for gonorrhea. There is also a push for doctors to screen Men who have Sex with Men (MSM) for gonorrhea on a semi-annual or annual basis because it is more prevalent in that population. DPH does not normally capture this data for gonorrhea cases.

TREND OVER TIME

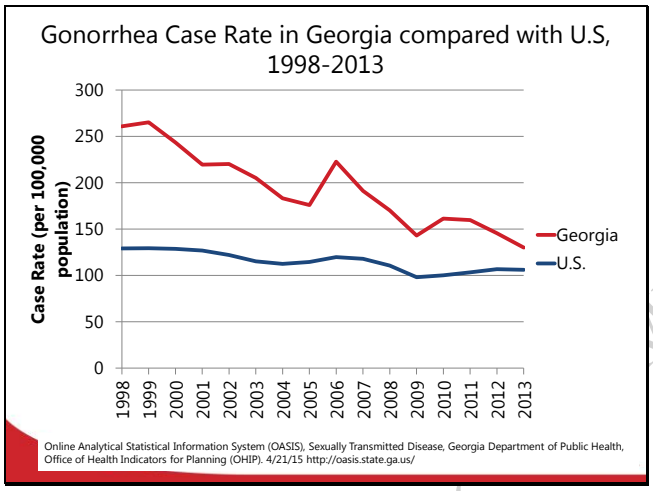


Figure 95

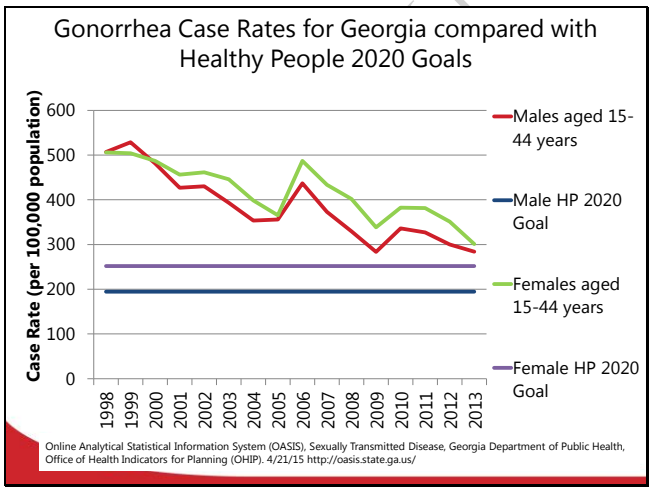


Figure 96

DEMOGRAPHIC/EQUITY

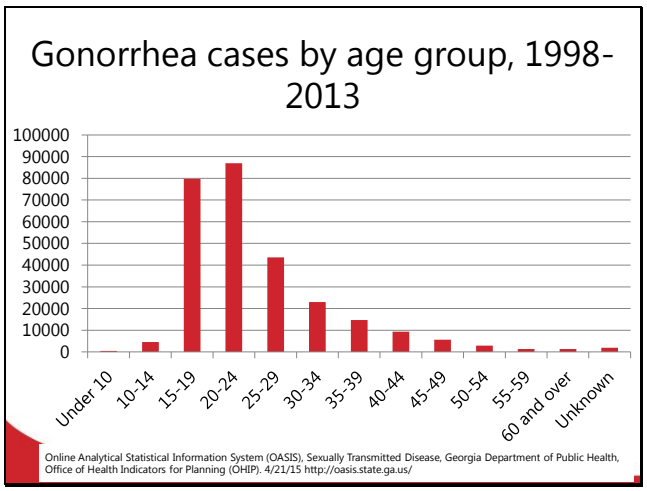


Figure 97

HIV Prevention Program

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

Figure 1 shows new HIV diagnoses and persons living with HIV between 2007 and 2013. 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. 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 2 shows substantial disparities in new diagnoses of HIV in 2013 by race/ethnicity. These disparities are longstanding. Figure 3 shows the HIV/AIDS mortality rate in Georgia, overall, and by race/ethnicity, and the US rate. The Georgia rate is higher than the US rate, reflecting the higher rate of HIV in Georgia compared to the nation as a whole. The graph also highlights substantial disparities by race/ethnicity.

TREND OVER TIME

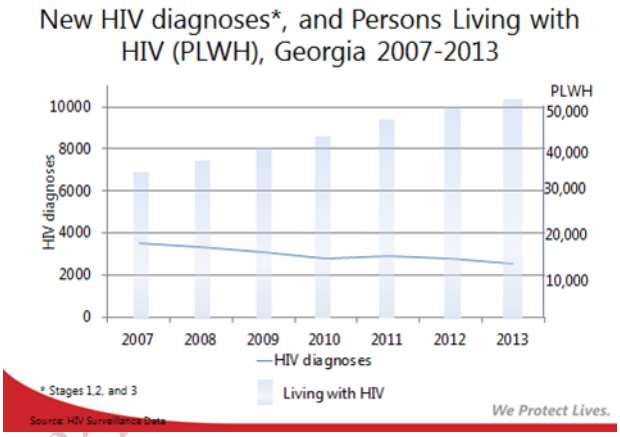


Figure 98

DEMOGRAPHIC/EQUITY

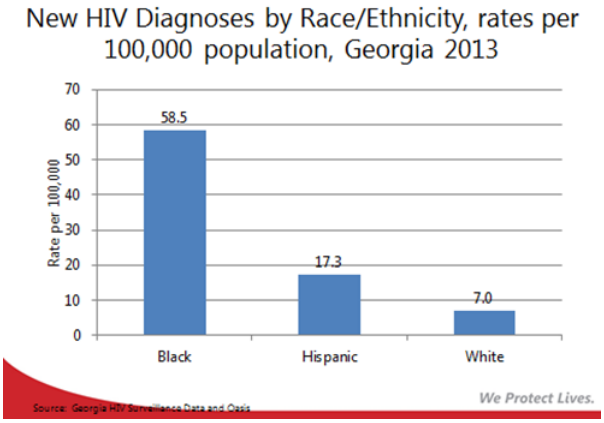


Figure 99

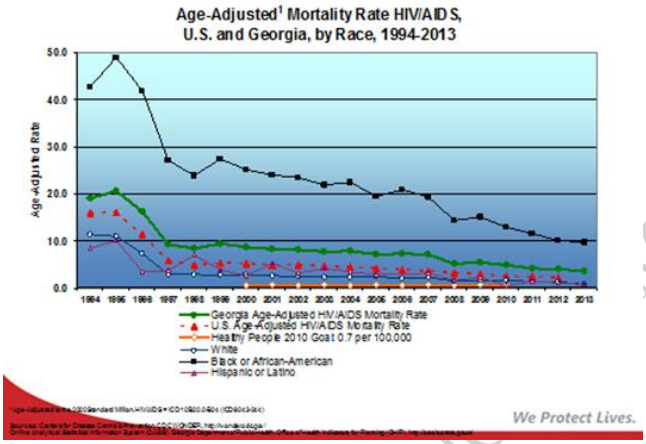


Figure 100

Environmental Health

Lead Poisoning Prevention

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 ensuringthat 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.

In the last 40 years, the blood lead levels of children have dropped significantly in the U.S. due to prevention efforts of public health agencies. 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 the CDC reference level of 5 micrograms per deciliter (ug/dL).

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.

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

<u>TRENDS OVER TIME</u>

Elevated Blood Lead Prevalence by Race GA, Age 1-5, 1998-2013

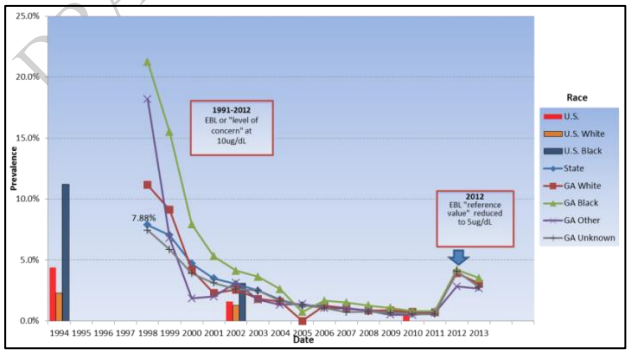


Figure 101

Source: STELLAR Database, DPH

Blood Lead Geometric Mean by Race GA, Age 1-5, 1998-2013

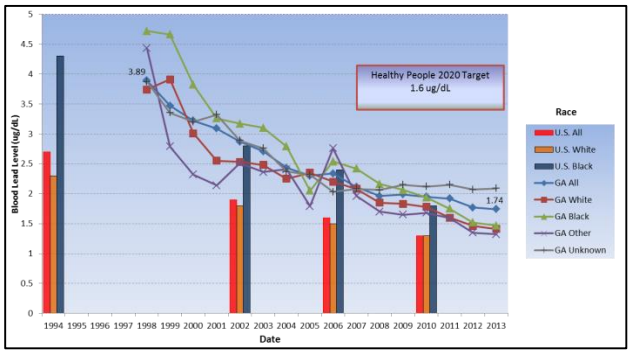


Figure 102

Source: STELLAR Database, DPH

Arboviral Disease Surveillance in Georgia

The mission of the Public Health Entomology program is to Inform the public of hazards and disease associated with insect and other arthropod pests of public health importance; Prevent illness or infestation through monitoring, assessment, education, and collaboration with partners; and Protect the public from risks associated with insects and other arthropods of public health importance Three arborviral diseases are currently endemic in Georgia: LaCrosse Encephalitis, Eastern Equine Encephalitis, and West Nile virus.

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). The average age of those with WNV neurologic illness was 49 years (range 9-76). Nine (69.2%) 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%) 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.

TREND OVER TIME (GA) 2001-2014

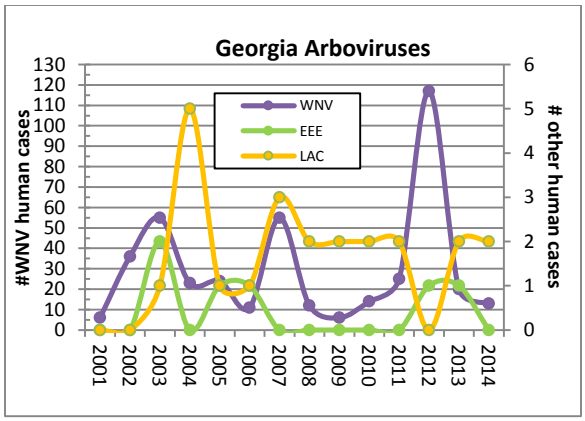


Figure 103

Source: OASIS, DPH

TRENDS OVER TIME (US) 2001-2014

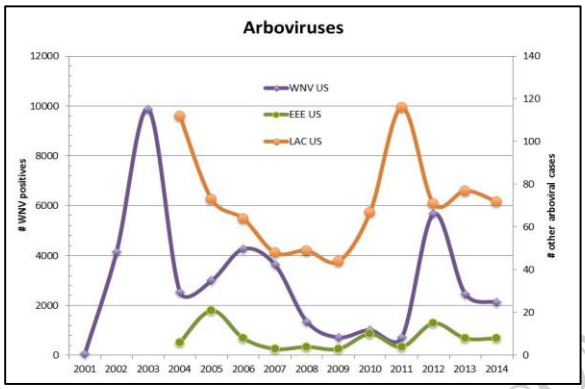


Figure 104

SOURCE: OASIS, DPH

Food Service Program

Foodborne illness in the United States is a major cause of personal distress, preventable death, and avoidable economic burden. The Centers for Disease Control and Prevention (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.

The mission of the Department of Public Health (DPH) Food Service program is to minimize foodborne related illnesses by: Informing the public of foodborne-related hazards; Preventing foodborne-related illness through monitoring, assessments, and education; and Protecting the public from risks associated with foodborne illness. 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 food-borne 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.

<u>RISK FACTORS</u>

The 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 the CDC through epidemiological data as the most prevalent contributing factors of foodborne illness or injury.

The performance metric for this program is reducing the number of citations for the CDC's top 5 designated violations made during inspections by 10%.

The following graph demonstrates the risk factors cited over time from 2012-2014.

<u>TRENDS OVER TIME 2012-2014</u>

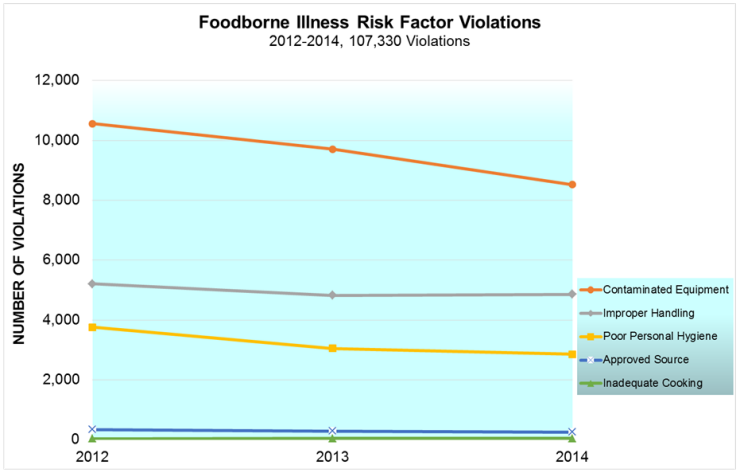


Figure 105

Source: Digital Health Department, Environmental Health Section, DPH

Onsite Sewage Management System Program

According to the Centers for Disease Control and Prevention, one of the top 10 major public health achievements in this countryis the control of infectious diseases from management of wastewater. Georgia requires all onsite 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 onsite 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.

Onsite Sewage Management System Failures

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 program established a performance metric to measure the % of OSSM system failures age 5 years or less with a target of no more than 1% 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 following chart demonstrates that from 2008-2015, approximately 2% of systems failed within the first five years and Georgia's overall estimated failure rate is approximately 1.7% as reported to the Environmental Protection Agency. This is significantly less than national failure rates of 10-20 % as reported by E.P.A.

<u>TRENDS OVER TIME</u>

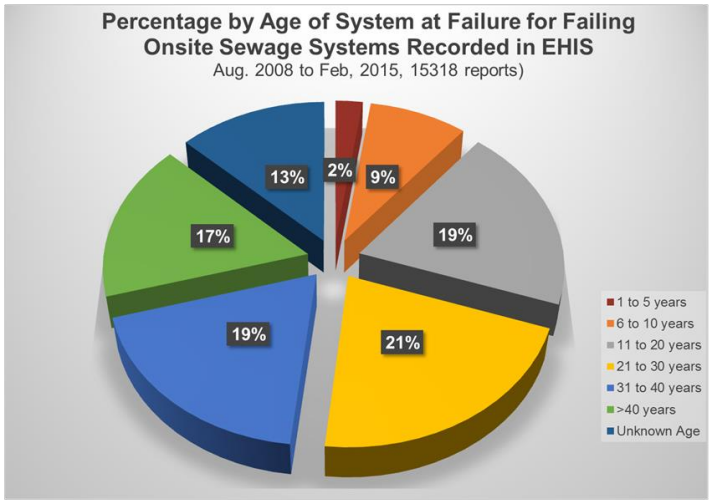


Figure 106

Source: Digital Health Department, Environmental Health Section, DPH

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 3rd 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.

Pool Closures

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.

RISK FACTORS

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

The performance metric for this program is reducing the number of critical disinfectant residual violations cited during inspections by 10%.

The following graph demonstrates the risk factors cited from 2012-2014.

TRENDS OVER TIME 2012-2014

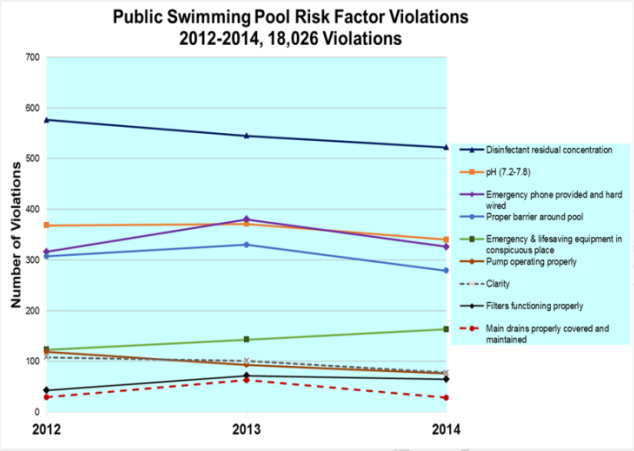


Figure 107

Source: Digital Health Department, Environmental Health Section, DPH

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 dollars 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.

<u>RISK FACTORS</u>

The performance metric for this program is reducing the number of critical and housing public health risk factor violations cited during inspections by 20%.

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 following graph demonstrates the risk factors cited from 2012-2014.

<u>TRENDS OVER TIME 2012-2014</u>

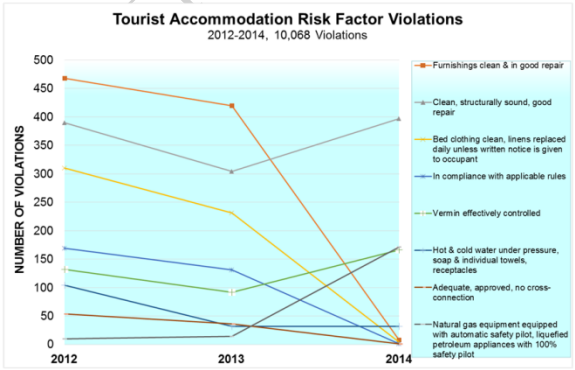


Figure 108

Source: Digital Health Department, Environmental Health Section, DPH

Injury Prevention

Injury Prevention

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 lifespan. 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 the 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. This has not happened in fifty years. Georgia is working with partners on more effective pain management practices, PDMP, and other policies to reduce deaths from prescription drug overdose.

Source: CDC WISQARS

Rank	Age Groups										
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Short Gestation 1,935	Unintentional Injury 637	Unintentional Injury 415	Unintentional Injury 495	Unintentional Injury 4,680	Unintentional Injury 4,201	Unintentional Injury 4,854	Malignant Neoplasms 14,006	Malignant Neoplasms 25,707	Heart Disease 114,461	Heart Disease 153,198
2	Congenital Anomalies 1,786	Homicide 164	Malignant Neoplasms 137	Malignant Neoplasms 117	Homicide 1,612	Homicide 1,631	Heart Disease 4,637	Heart Disease 12,180	Heart Disease 19,959	Malignant Neoplasms 80,595	Malignant Neoplasms 126,868
3	SIDS 1,170	Congenital Anomalies 151	Homicide 53	Homicide 70	Suicide 1,082	Suicide 1,388	Malignant Neoplasms 4,609	Unintentional Injury 4,774	Chronic Low Respiratory Disease 3,659	Cerebro-vascular 32,259	Cerebro-vascular 27,615
4	Maternal Pregnancy Comp. 516	Malignant Neoplasms 95	Congenital Anomalies 41	Heart Disease 65	Malignant Neoplasms 438	Heart Disease 1,185	HIV 2,488	Cerebro-vascular 2,384	Cerebro-vascular 3,659	Chronic Low Respiratory Disease 23,653	Unintentional Injury 22,758
5	Respiratory Distress 434	Heart Disease 69	Heart Disease 38	Congenital Anomalies 66	Heart Disease 416	Malignant Neoplasms 1,145	Suicide 1,745	HIV 1,830	Unintentional Injury 2,774	Alzheimer's 22,944	Chronic Low Respiratory Disease 10,944
6	Unintentional Injury 336	Influenza & Pneumonia 34	Benign Neoplasms 18	Suicide 56	Congenital Anomalies 148	HIV 1,038	Homicide 1,174	Liver Disease 1,704	Diabetes Mellitus 2,662	Influenza & Pneumonia 8,601	Influenza & Pneumonia 7,601
7	Bacterial Sepsis 289	Septicemia 29	Septicemia 16	Benign Neoplasms 18	HIV 127	Diabetes Mellitus 220	Cerebro-vascular 947	Suicide 1,641	Nephritis 1,628	Nephritis 7,165	Diabetes Mellitus 4,303
8	Placenta Cord Membranes 257	Perinatal Period 24	Chronic Low Respiratory Disease 15	Chronic Low Respiratory Disease 18	Cerebro-vascular 72	Cerebro-vascular 201	Liver Disease 649	Diabetes Mellitus 1,438	Liver Disease 1,569	Diabetes Mellitus 6,013	Alzheimer's Disease 4,013

Figure 110

Source: CDC WISQARS

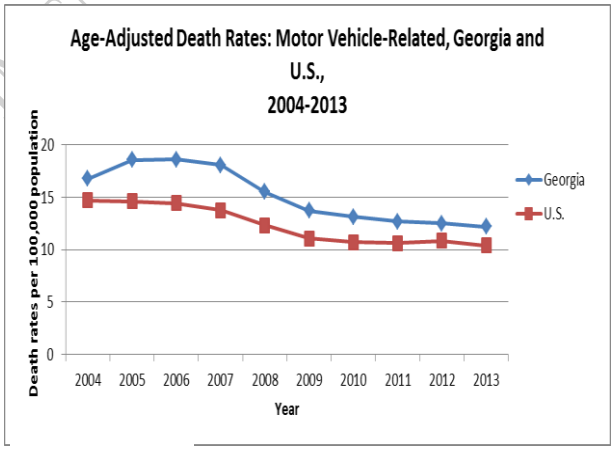


Figure 109

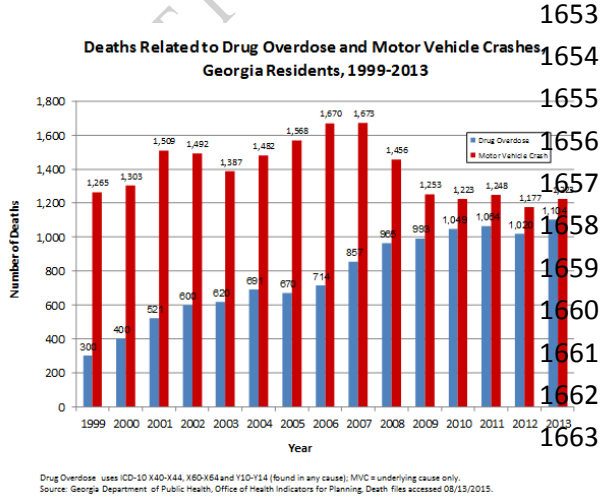


Figure 111

Motor Vehicle Crashes: Child Occupant Safety

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

This graph demonstrates that children are still going into a seat belt too early. This data for earlier years indicated the intersection of restraint use and seat belt use was around 3 years of age. As booster seat use increases the intersection of these lines moves towards the older ages. The blue line is the child safety seat use and the pink line seat belt use. Between 4 and 5 years of age is when children switch to being restrained in a seat belt only. The green line is using no restraint systems and line is constantly unchanged for all ages. The red dotted lines shows the Georgia Child Restraint Law improvements by ages.

What Works: Specific to child passenger safety and prevention of injuries, the CDC recommends the following findings to assist communities in developing prevention programming:

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

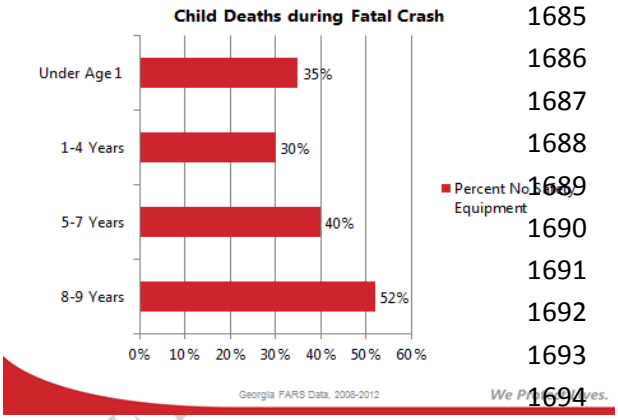


Figure 113

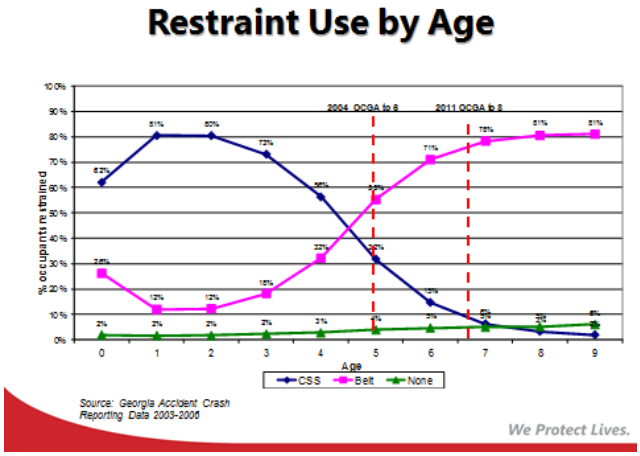


Figure 112

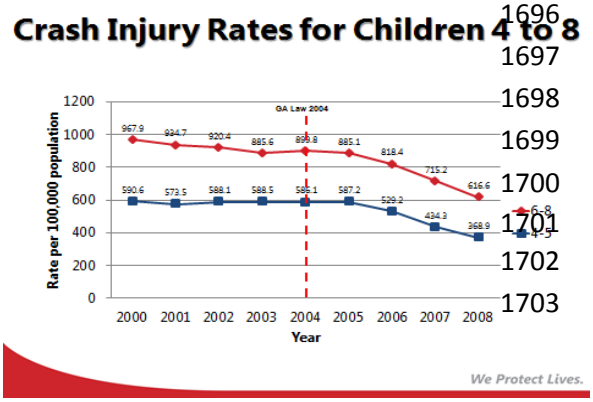


Figure 114

Source: Georgia Accident Crash reporting Data 2000-2008

1704
1705

Motor Vehicle Crashes: Older Driver Safety

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. Overall, males were more likely than females to die from motor vehicle crashes.

From 2009-2013, the rates of hospitalization resulting from motor vehicle crashes were highest among Georgians age 85+, followed by 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. Persons of other races (114.0 per 100,000 population) were more likely to be hospitalized than Whites and Blacks (Figure 16). The lack of proper seat belt training among other races could be a risk factor.

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.

Source: OASIS, GaDPH

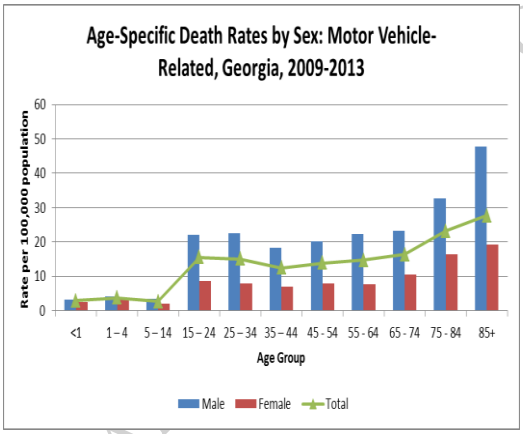


Figure 117

Source: OASIS, GaDPH

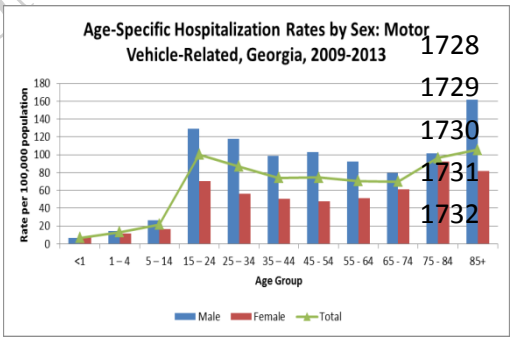


Figure 116

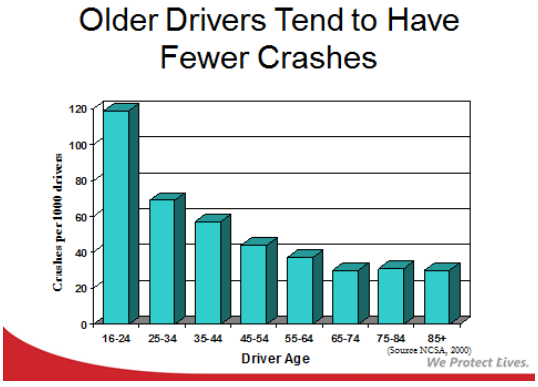


Figure 115

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. 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.

The death rate for African-American infants due to sleep-related circumstances in Georgia has been almost twice that of White infants for many years. 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.

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

Source: OASIS, GaDPH

SOURCE: OASIS, GADPH

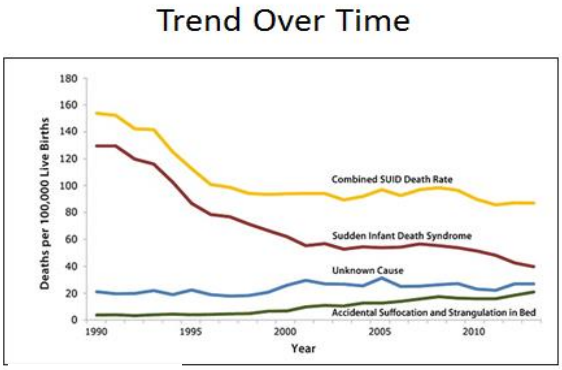


Figure 118

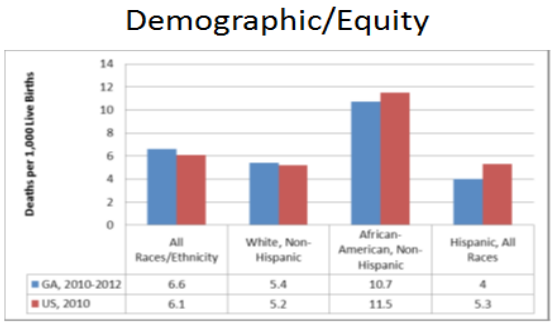


Figure 119

Source: OASIS, GaDPH

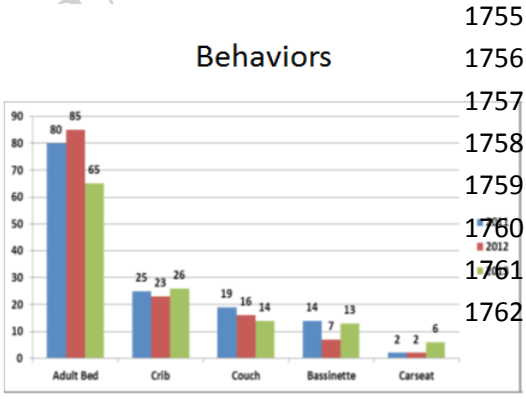


Figure 120

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Older Adult Falls Prevention

Source: OASIS, DPH

Fall-related injuries resulting from slipping, tripping, or stumbling accounted for 21% 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% of persons who died as a result of a fall suffered a traumatic brain injury (TBI) compared to 50% of individuals in the U.S. In Georgia, TBI was the primary or associated diagnosis in 3% of all causes of death and 11% of all TBI fatalities.

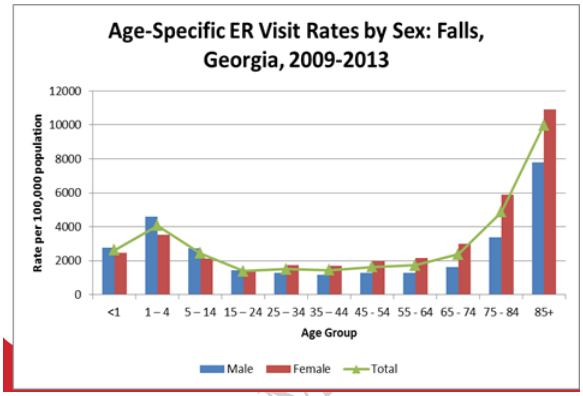


Figure 121

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

The 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

Source: OASIS, DPH

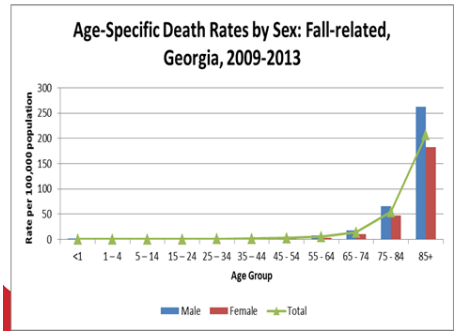


Figure 122

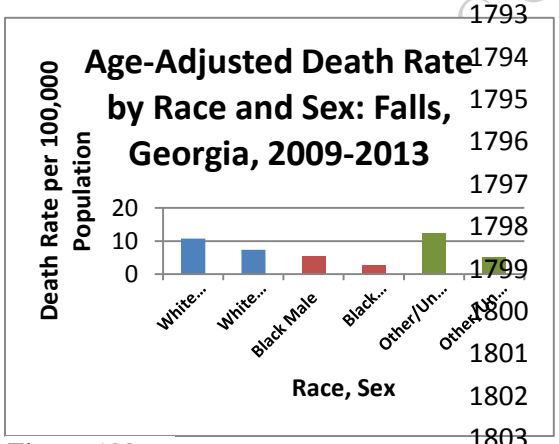


Figure 123

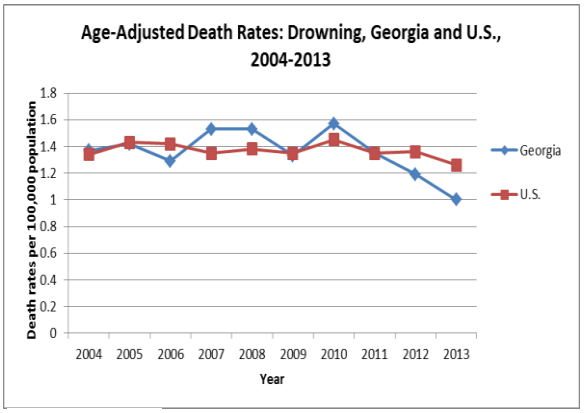


Figure 124

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. 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%) died from fire-related injuries than Blacks (41%). 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%) died from fire-related injuries than females (~40%). The highest number of fire-related deaths was seen in adults ages 45-84 years (See Table 20 in Appendix A). Fire-related death rates were highest among persons age 85 years and older (Figure 41).

Source: OASIS, DPH

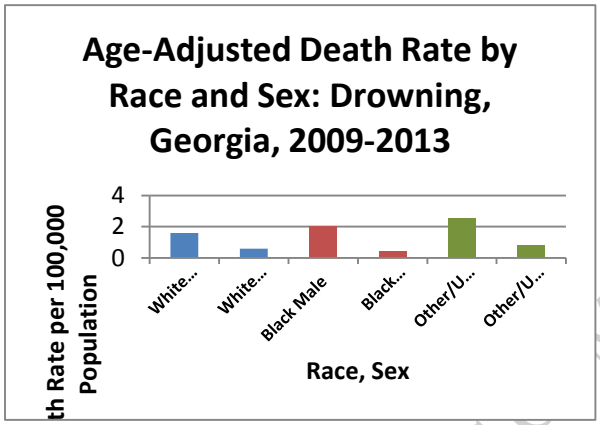


Figure 125

Source: OASIS, GaDPH

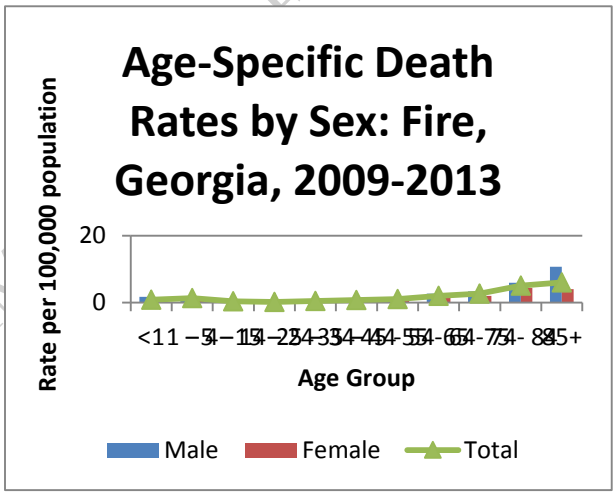


Figure 126

Source: OASIS, DPH

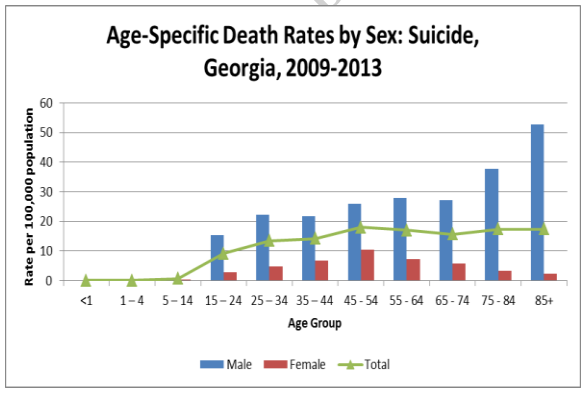


Figure 127

Suicide is the leading cause of violence-related death, and the eleventh leading cause of overall deaths in Georgia (CDC WISQARS). 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%), and males (78%).

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.

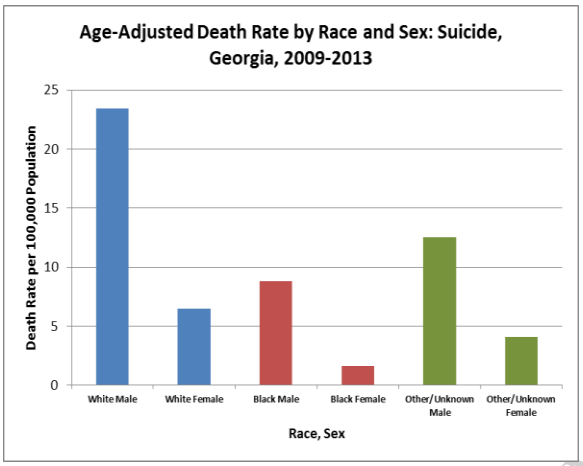


Figure 1822 Source: OASIS, DPH

PART 2

Access to Care in Georgia

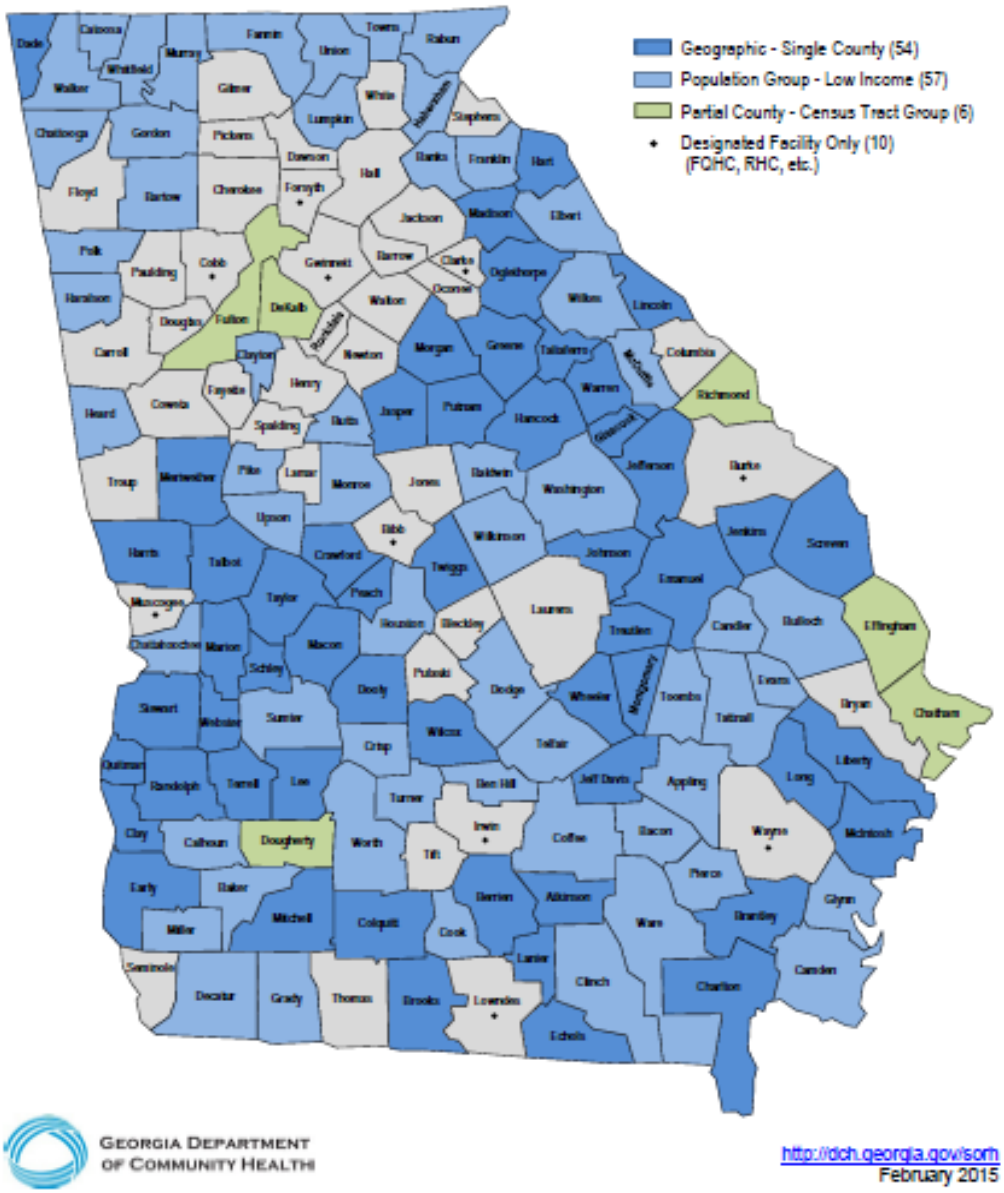
According to the State Office of Rural Health, there are currently approximately 6,100 designated Health Professional Shortage areas (HPSAs) across the state of Georgia. Primary Care HPSAs are based on a physician to population ratio of 1:3,500. In other words, when there are 3,500 or more people per 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 designations

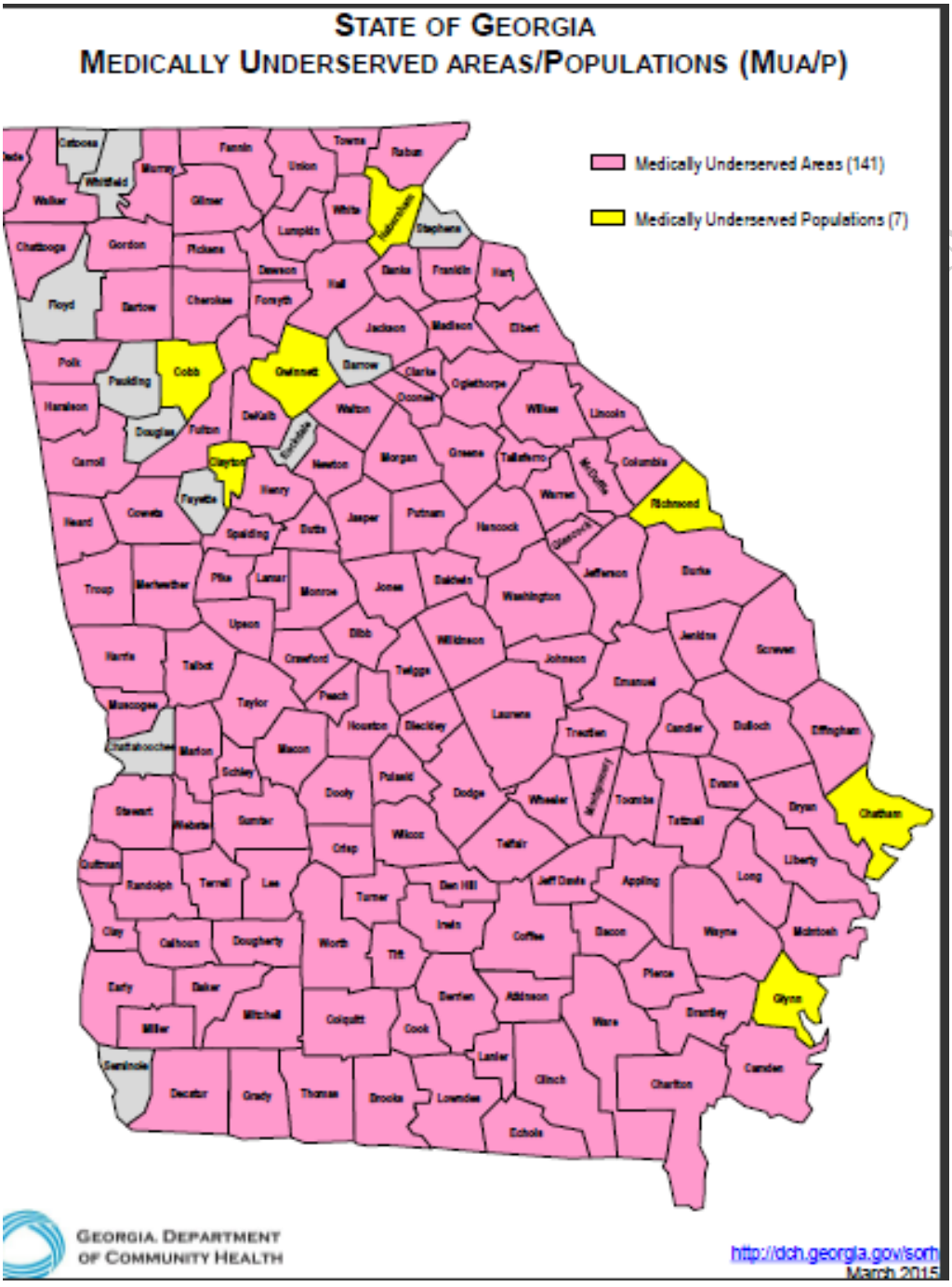
Primary Care Health Care Shortage Area Map

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.



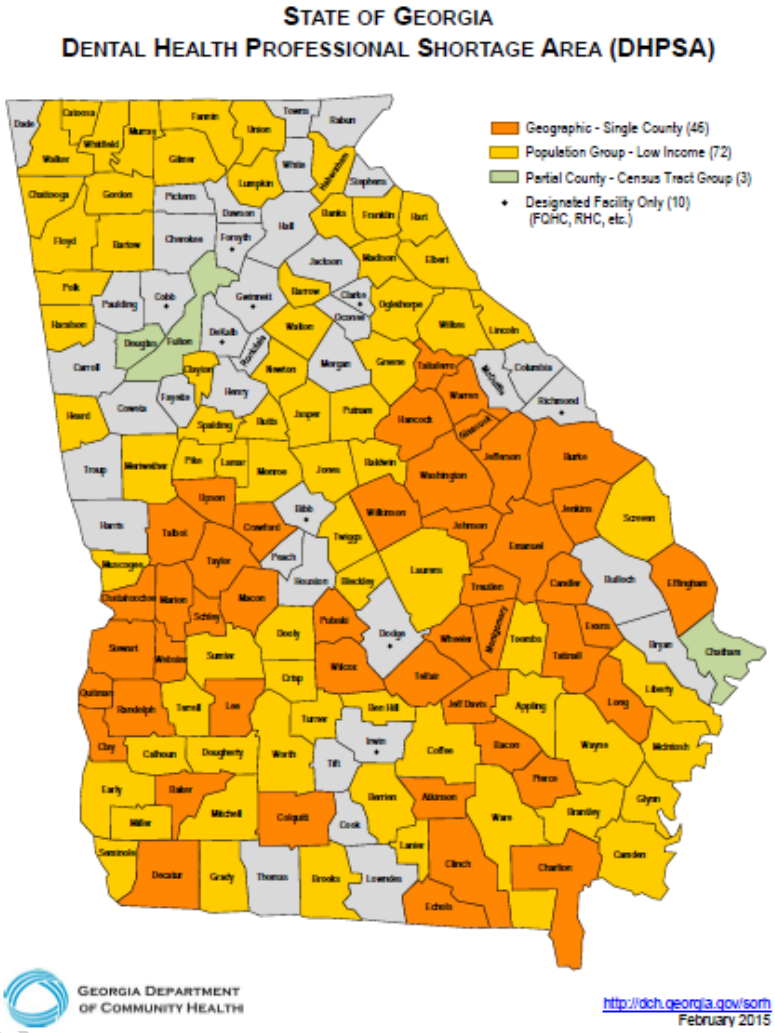
Medically Underserved Areas/Populations

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.



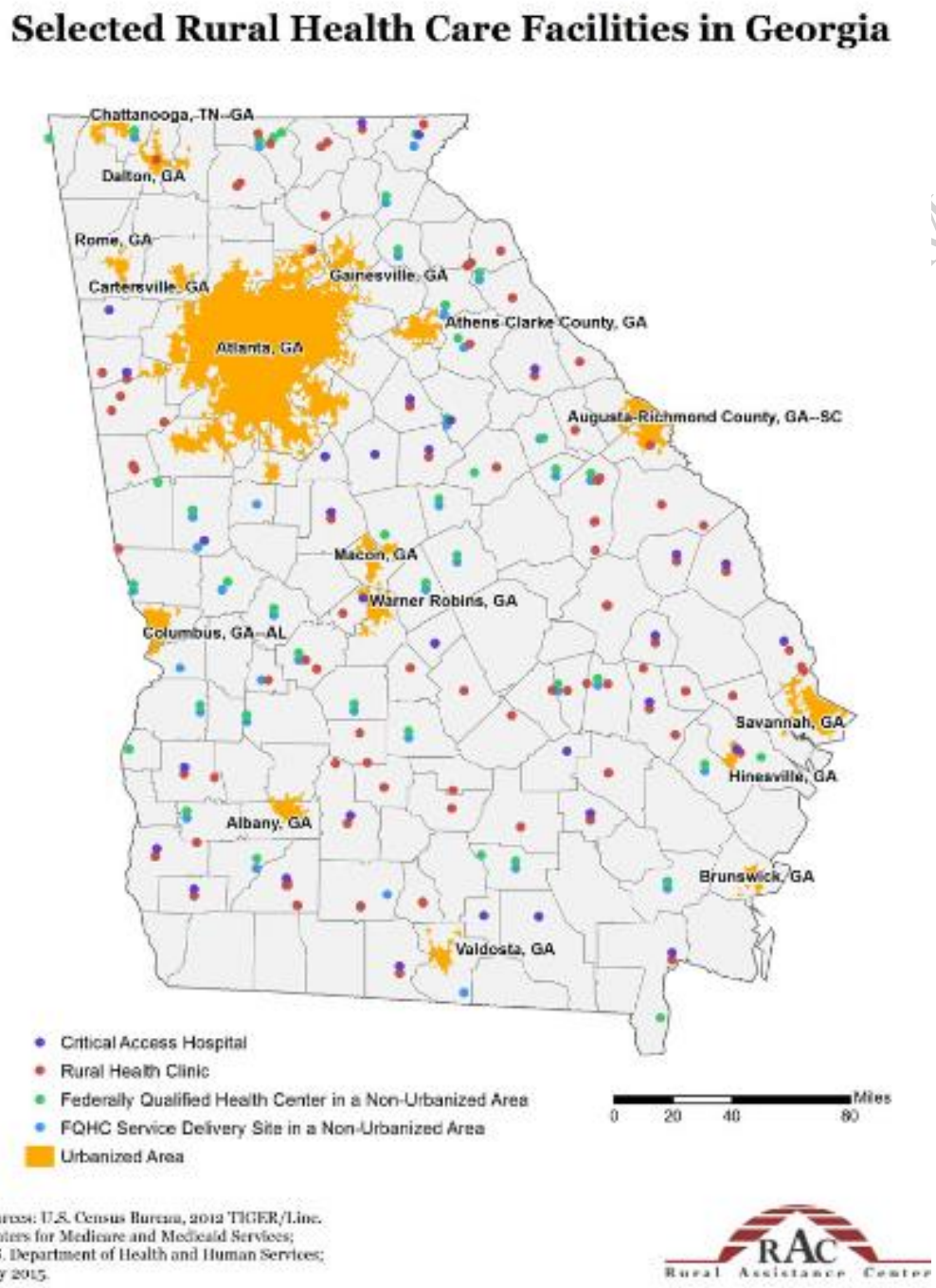
Dental Health Professional Shortage Area

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.



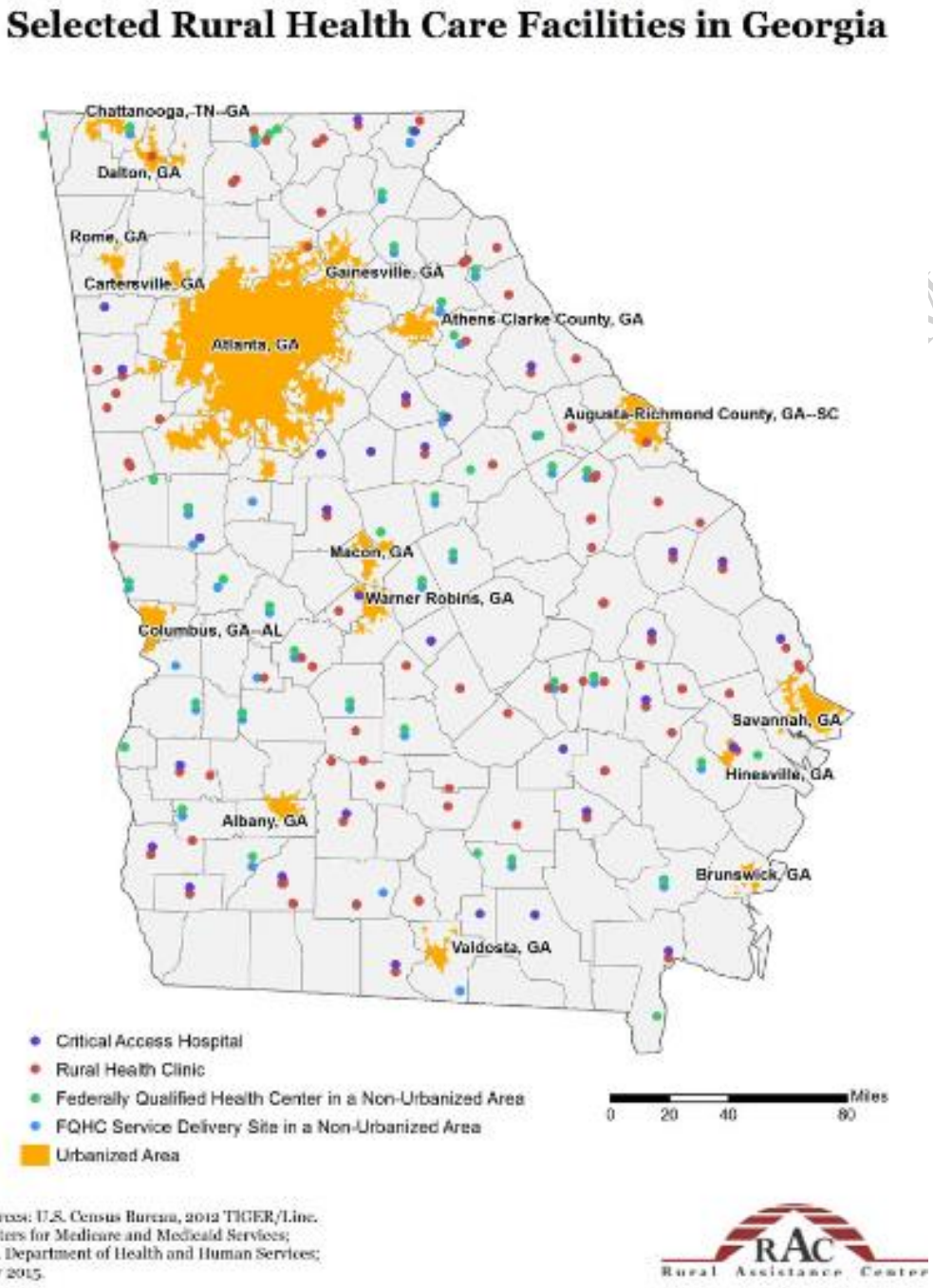
Selected Rural Health Care Facilities in Georgia

The main take away here is that many of the rural areas do not have access to critical access hospitals. Several counties inthe state don't have access to critical access hospitals, rural health clinics or and federally qualified health centers.



State of Georgia Hospitals Certified for Critical Access Designation

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



Source: State Office of Rural Health.

Georgia's Public Health System

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 eighteen 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.

DPH has responsibility for framing and implementing a statewide public health policy, operating statewide programs such as the Georgia Public Health Laboratories and disease surveillance, and establishing standards for numerous matters from reportable diseases to restaurant inspections.

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.

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.

DPH defines its mission this way:

"To prevent disease, injury, and disability;
to promote health and wellbeing;
to prepare for and respond to disasters."
In order to fulfill that very broad mission, DPH works very closely with its partners in public health, the 159 County Boards of Health and the eighteen District Health Directors.

Public Health Administration in Georgia

Georgia's "hybrid" public health system.

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.[2] 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."[3]

Georgia's 159 county health departments are organized into eighteen Health Districts.[4] Some Health Districts consist of a single county, while others include more than a dozen counties. 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.

Georgia's Public Health System Assessment

Overview

The Georgia Department of Public Health (DPH) 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,

[2] 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).

[3] 1974 Op. Att'y Gen. No. 74-19.

[4] See Appendix A for a map of Georgia's eighteen Health Districts.

Volunteer Health Care, the Office of Health Equity, Vital Records, and the State Public Health Laboratory.

The Georgia Public Health System Assessment focuses on how well the 10 essential public health services being provided. The survey looks at the components, activities, competencies, and capacities of our Georgia public health system. The assessment identifies strengths, weaknesses and areas for improvement.

The public health system survey was distributed to state, district and county health department staff. In addition, surveys were distributed to county board of health members. The department received 376 responses.

Overall Summary of Findings

The majority of respondents (89%) 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.

Who do you Represent	Responses	%ages
Health District Staff	146	38.60%
County Health Department Staff	160	42.55%
DPH State Office Staff	42	11.17%
County Board of Health Member	28	7.45%
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 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 prior to 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 media advocacy, social marketing and risk communication to diverse audiences.

One common theme among responses is that DPH needs to improve in the area of community 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. DPH needs to build and maintain partnerships with other sectors to provide a coordinated system of health care.
Respondents identified access to health care as a concern. DPH needs to improve in identifying populations with barriers to health care and assure that access is available to public health services.
Respondents noted that DPH has the work force 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.

DPH needs 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.

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% of the state's population gets its drinking water from public water systems (Figure 1.1), most of which treat the water before it is distributed.

In 2007, 94% 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%.

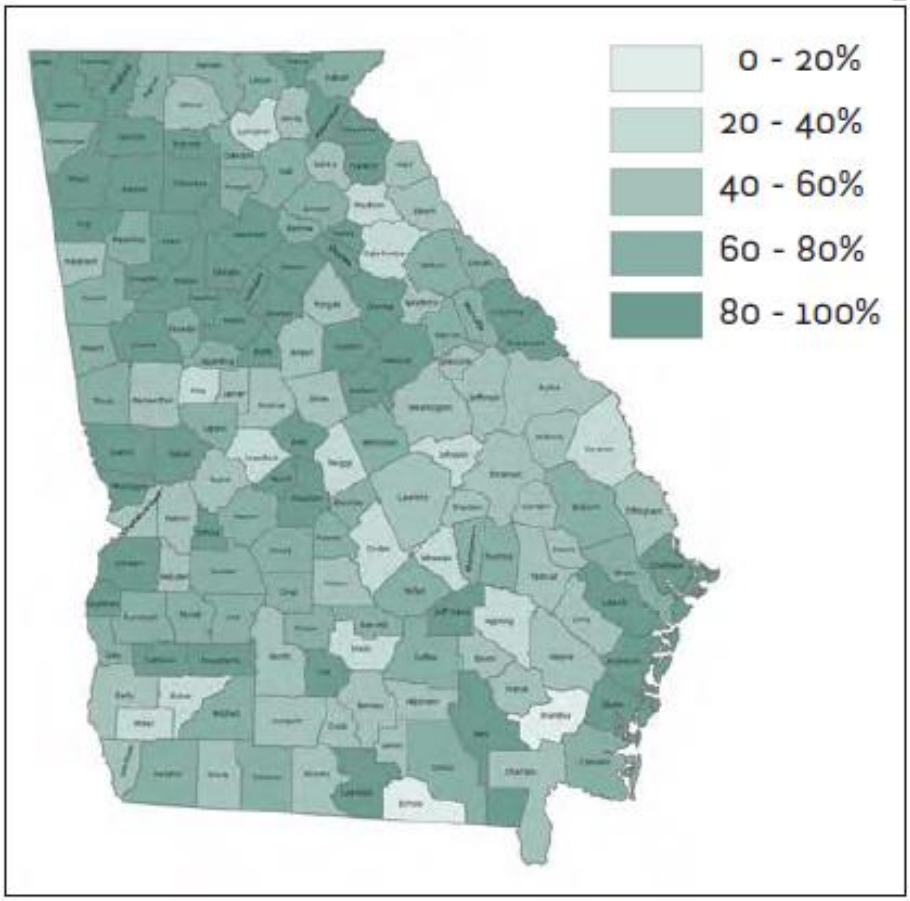


Figure 1.1 Percent of population on a public water system, by county, 2007. (EPD)

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.

Sensitive populations in non-attainment areas:

Approximately 17% 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%, 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)% of the state's population lives in counties where ozone levels sometimes exceed the standard and 57% live in areas where levels of fine particulates sometimes exceed the standard.

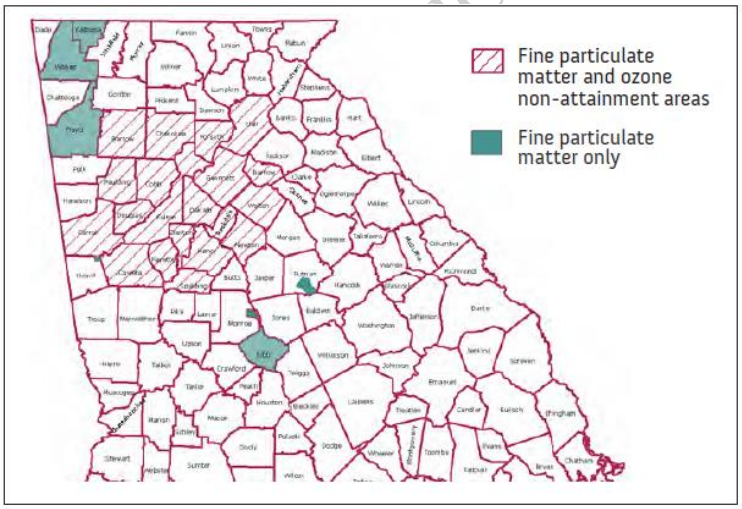
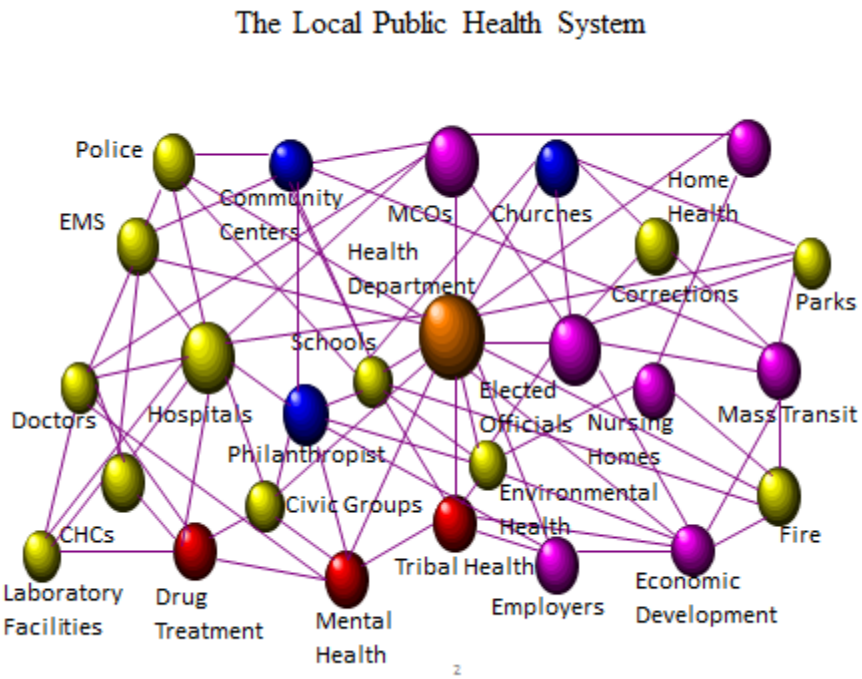


Figure 1.13 Air quality non-attainment areas: Ozone and fine particulate matter, 2008. (EPD)

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; non-profit, 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 Svcs.
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	Institutional Assets
ACS CANCER ACTION NETWORK	Armstrong State University
Alere Wellbeing	Fort Valley State University
American Academy of Pediatrics-Georgia Chapter	Morehouse Prevention Research Center
American Association of Diabetes Educators	Savannah State University
American College of Physicians-Georgia Chapter	University of West Georgia
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	

2117 Maternal and Child Health Additional Assets and Resources

Community Assets	Institutional Assets
Sickle Cell Association of Lower Chattahoochee Region	Georgia State Center for Leadership and Disability
Hands & Voices	Bacon County Hospital
Commission on Hearing Impaired and Deaf Persons	Cartersville Medical
Georgia Lions Lighthouse	Clearview Regional Medical Center
Sickle Cell Foundation of Ga	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

2118

Environmental Health – additional assets and resources

Childhood Lead

Community Assets	Institutional Assets
Safe Kids GA	DPH Tobacco Use Prevention
GA Apartment Owners Association	Bright From the Start
Weir Lead Testing	City of Atlanta, Dept. of Planning & Community Development
Georgia Community Action Ass.(GCAA) Weatherization*	US Environmental Protection Agency
Leadnology Inc.	Georgia Environmental Protection Division
Georgia Realtors Ass.	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
U.S. Food and Drug Administration (FDA)
Georgia Restaurant Association (GRA)
U.S. 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	Institutional Assets
National Swimming Pool Foundation	ChlorKing, Inc.
Association of Pool and Spa Professionals	Artistic Pools
Georgia Hospitality and Lodging Association	Aquatic Training Institute
Asian American Hotel Owners Association	Water Technology
Cobb County Dep. Of Parks and Recs Aquatics	Water Works Inc.
Georgia Pest Control Association	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	Institutional Assets
Keep Dalton-Whitfield Beautiful	University of Georgia, Marine Extension Service
Keep Newnan Beautiful	University of Georgia, Agricultural & Environmental Services Lab
Glynn Environmental Coalition	Emory University, Environmental Health Research Center

Eco-Action	Dalton State College
West Atlanta Watershed Alliance	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

2130 EH - Emergency Preparedness

Community Assets	Institutional Assets
American Red Cross / Georgia	Atlanta Fire Rescue
American Red Cross / Georgia	CDC Division of Env. Haz and Health Effects
Ga Funeral Directors Association	Disability Resource Advocate / EPR Consultant
Georgia Critical Incident Stress Foundation	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.

Health Protection Emergency Preparedness – 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

2134 Women Infants and Children Additional Assets and Resources

Community Assets	Institutional Assets
Northwest Georgia Regional Commission	WIC District Rome 1-1
Legacy Link, Inc.	WIC District Dalton 1-2
Atlanta Regional Commission	WIC District Gainesville 2-0
Three Rivers Southern Crescent	WIC District Cobb Douglas 3-1
Northeast GA RC	WIC District Fulton 3-2
River Valley RCAAA	WIC District Clayton 3-3
Middle GA RC	WIC District Gwinnett 3-4
CSRA	WIC District DeKalb 3-5
Heart of GA ARC	WIC District LaGrange 4-0
Southwest GA RC	WIC District Dublin 5-1
Southern Georgia Area Agency on Aging	WIC District Macon 5-2
Coastal GA RDC	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

Appendix A

Georgia Public Health Districts

2139