spartanburg community indicators project

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THE STATUS OF PUBLIC HEALTH

Spartanburg County, South Carolina

2016 Update

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Spartanburg Community Indicators Project

The Spartanburg Community Indicators Project reports on progress of key issues that are the clearest indicators of quality of life in Spartanburg County, South Carolina. Its goal is to report on data and community initiatives to inspire dialogue and strategy that lead to change within the community.

The Project is a collaboration of The Spartanburg County Foundation, United Way of the Piedmont, Spartanburg County, University of South Carolina Upstate, Mary Black Foundation, Spartanburg Regional Foundation, and Spartanburg Area Chamber of Commerce. It is designed to bring together community organizations, businesses, and individuals to improve the quality of life in Spartanburg County.

The Project has identified seven broad Indicator Areas and goals encompassing the factors affecting quality of life which are:

Civic Health

Our citizens will have access to opportunities for civic engagement that promote community well-being and an enriched quality of life.

Cultural Vitality

Our community will increase opportunities for cultural experiences, both formal and informal, and broaden community engagement to be more representative of Spartanburg County's population.

Economy

Our citizens will have access to living wage jobs and our communities will be economically viable.

Education

Our children will excel academically and our citizens will demonstrate high levels of baccalaureate degree attainment, rendering Spartanburg the best educated county in the state.

Natural Environment

Our citizens will manage our natural resources in a way that will support current and future generations.

Public Health

Our citizens will be increasingly healthy, demonstrating decreasing incidence and prevalence of health risk factors and poor health outcomes.

Social Environment

Our community will be characterized by stable families, low crime, affordable housing and access to opportunity.

Community Collaboration

Indicator Area Leaders

The Spartanburg Community Indicators Project partners with Indicator Area Leaders to improve outcomes in each of its seven Indicator Areas. These organizations set improvement goals based on indicator data and lead individuals, businesses and community groups to coordinate efforts and information, thus facilitating steady progress in quality of life improvement.

Public Health Indicator Area Leader

The Road to Better Health serves as the Indicator Area Leader for the Public Health Indicator Area. The Coalition is an informal group of public, non-profit and private organizations working together to improve Spartanburg County's Public Health. They coordinate their efforts through a council and Priority Groups to use the Public Health Indicators as the foundation of community efforts to drive the Public Health Indicators upward.

The Road to Better Health is assessing its priority areas and goals based on the results of this report's data. Meetings of stakeholders are taking place to assure the effective and efficient use of community resources in areas of greatest need and impact. Final determinations for the appropriate groups and goals for the next three years of work are expected to be complete and in place for 2017. Those details will be posted at strategicspartanburg.org as soon as they are finalized.

The priorities beginning in 2017 will be some combination of our current and proposed priorities:

Current Priorities

- Access to Care
- Behavioral Health
- Birth Outcomes
- Childhood Obesity
- Tobacco Use

Proposed Priorities

- Adult Oral Health
- Health Equity
- Pediatric Asthma/Lead Exposure

Once the priorities are finalized, Road to Better Health will organize new taskforces as needed and set goals for the next three years in each priority area.

Introduction and Methodology

Public health is a source of concern and major investment in Spartanburg County. In recent years, there has been significant collaboration around common health-related goals. Initiatives such as the Road to Better Health and Spartanburg's Way to Wellville have underpinned the efforts of local foundations, nonprofit organizations, hospitals, universities, public health agencies, and faith-based groups to move the collective health of Spartanburg County forward. Because of these initiatives, grounded in collaboration and data-informed decision making, Spartanburg has been recognized nationally for its efforts and successes. Stakeholders understand that measurement, data collection, and meaningful reporting are the foundation for successful interventions. With that understanding, *The Status of Public Health in Spartanburg County* is updated every 2 to 3 years.

This report is organized according to Leading, Secondary and Crosscutting Indicators. Leading Indicators are those measures that best reflect the state of public health, are most impactful, and are useful predictors of public health trends. Secondary Indicators are other measures of public health, variables that have impact on public health or are tangentially reflective of the state of public health, or derive from the Leading Indicators. Crosscutting Indicators are measures that are Leading or Secondary in other Indicators Areas but also have tangential or predictive impact on public health.

The Leading Indicators for the 2013 update of *The Status of Public Health in Spartanburg County* were those identified by the Road to Better Health (RTBH), a coalition of local providers and other stakeholders, as the most immediate and challenging public health needs in Spartanburg County. As public health metrics and goals have evolved, many models for data collection and reporting have emerged. For the 2016 update of *The Status of Public Health in Spartanburg County*, the Leading Indicators have shifted to be better aligned with statewide public health goals and metrics identified by the Alliance for a Healthier South Carolina. However, data within this report also reflect the Priority Areas of RTBH.

The Leading Indicators chosen for this report are those identified by the Alliance for a Healthier South Carolina as the most immediate and challenging public health needs in the state. The Alliance is a coalition of more than 50 executive leaders from diverse organizations across the state working together to ensure that all people in South Carolina have the opportunity for maximum health while reducing the future cost of care. The Alliance was born of the realization that efforts targeting health in South Carolina would have more impact if they were coordinated and duplications were minimized. This collective impact is articulated in the Alliance's Common Agenda for Health Improvement which forms the Leading Indicators for Public Health in Spartanburg County.

By agreeing on common goals in these five critical areas, the Alliance has begun aligning individual efforts of many organizations for greater impact. Outcomes are measured consistently and reported in a dashboard at the state and county levels. The Leading Indicators in this report are organized around the Alliance's agenda.

The Alliance has also identified strategies to achieve these goals. More information on the work of the Alliance can be found on its website, healthiersc.org.

Common Agenda for Health Improvement

		For ALL people in SC	At a lower per-capita cost
Healthy Babies	Improve the health of moms and babies from pre-conception to the first year of life	Everyone with the same probability of attaining the best health status, independent of gender, race, sexual orientation, neighborhood, disability, ethnicity, educational attainment, or socioeconomic status.	Reduce the per-person cost of healthcare in the state (when accounting for all public and private healthcare expense)
Healthy Children	Improve the health and educational outcomes of children		
Healthy Bodies	Improve physical health through healthy nutrition, physical activity		
	Improve physical health through enabling access to high quality primary care		
Healthy Minds	Improve behavioral health through improved access to appropriate behavioral health services and other necessary clinical and support services		

Source: Alliance for a Healthier South Carolina

Data contained in this report are provided by numerous sources as noted in each section of the report. Thanks are extended to Chelsea Lynes and the Behavioral Risk Factor Surveillance System (BRFSS) team at the South Carolina Department of Health and Environmental Control Public Health Statistics and Information Services for recalculating BRFSS data to provide valid county level information. To get better estimates, BRFSS data provided here are aggregated for 2013 and 2014 for a total sample size of 958 Spartanburg County residents. Confidence intervals are provided to give more context to these estimates. Other primary sources of data are the United States Census, South Carolina Revenue and Fiscal Affairs, South Carolina Department of Health and Environmental Control, and the Alliance for a Healthier South Carolina. Acknowledgment and thanks are extended to all of these organizations for providing valid and reliable data.

In order to provide context, most data in this report are reported with appropriate comparison data or trend data. Original sources are provided for further research. Where valid and reliable data sources are limited, the data are likewise limited. Any questions may be addressed to the author of this study.

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Leading Indicators

LEADING INDICATOR I: Healthy Babies

ALLIANCE FOR A HEALTHIER SOUTH CAROLINA GOAL: Improve the health of babies from pre-conception to the first year of life

Infant Mortality

Infant mortality is defined as death occurring during the first year of life. **The infant mortality rate is often used as a measure of the overall health status of a given population because it reflects multiple underlying socioeconomic factors that predict health outcomes.**

In November 2015, the South Carolina Department of Health and Environmental Control (SC DHEC) announced that the state's infant mortality rate is at its lowest in history for the second year in a row. The 2014 infant mortality rate fell to 6.5 per 1,000 live births. This was greater improvement than the 2020 Goal set by the Alliance for a Healthier South Carolina - 6.9 per 1000 births.

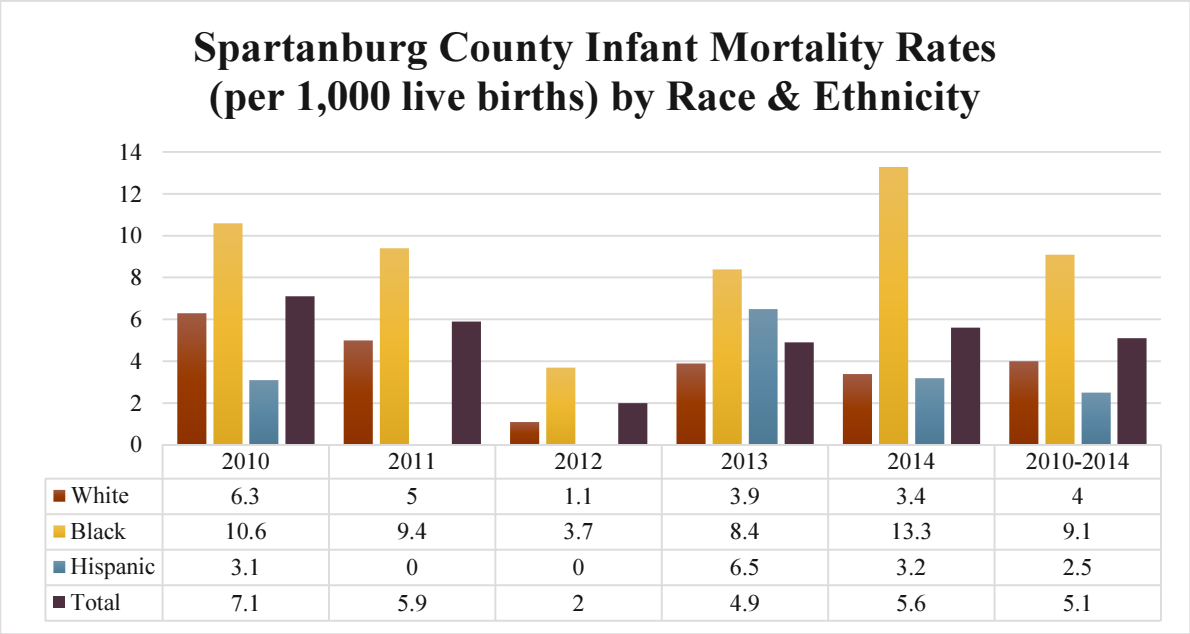
When examining infant mortality data at the county level, numbers of deaths are small; therefore, a combined year estimate provides the more accurate estimate of infant mortality rates. The 2010-2014 infant mortality rate for Spartanburg County is lower than peer county rates and the state average. The Spartanburg County average is also lower than the US annual infant mortality rate.

Infant Mortality (per 1,000 live births)

	2010	2011	2012	2013	2014	2010-2014
Spartanburg	7.1	5.9	2.0	4.9	5.6	5.1
Greenville	5.9	6.6	5.2	6.1	5.8	5.9
Richland	6.2	7.9	8.6	9.4	7.1	7.8
Charleston	6.4	6.7	5.8	4.0	4.8	5.5
South Carolina	7.4	7.4	7.6	6.9	6.5	7.1
United States*	6.1	6.1	6.0	6.0	6.0	

*Data Sources: SC DHEC SCAN Community Profiles; Kids Count Data Center; *Centers for Disease Control & Prevention*

Racial disparities in infant mortality persist in South Carolina. Although 2012 Spartanburg County data showed a sharp decline in infant deaths among black/African-American babies, there was a sharp rise the following two years. It is clear from the combined year averages that racial disparity in infant mortality is significant.



	2010	2011	2012	2013	2014	2010-2014
White	6.3	5	1.1	3.9	3.4	4
Black	10.6	9.4	3.7	8.4	13.3	9.1
Hispanic	3.1	0	0	6.5	3.2	2.5
Total	7.1	5.9	2	4.9	5.6	5.1

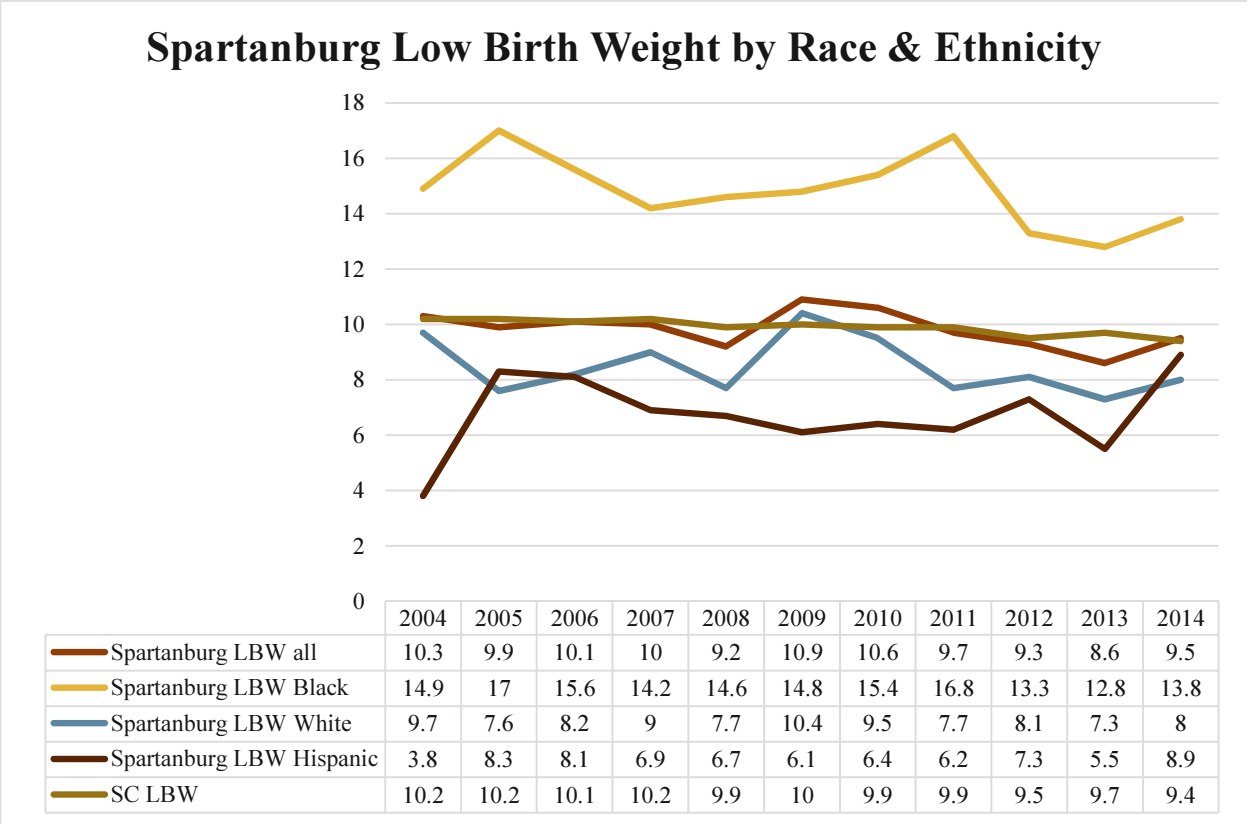
Data Source: SC DHEC SCAN Community Profiles

Low Birth Weight

On an average day in South Carolina, 15 babies are born with low birth weight. Low birth weight is the main contributor to infant mortality, regardless of period of gestation. Pre-term birth (prior to the 37th week of gestation) is the primary cause of low birth weight (1,500-2,500 grams) and very low birth weight (under 1,500 grams). Therefore, many infant mortality initiatives focus on delaying delivery until the 39th week. Delayed or insufficient prenatal care is a primary predictor of prematurity and low birth weight. Preterm births and low birth weight are associated with mothers who:

1. Are in either their teens or forties
2. Have less than a high school education
3. Are unmarried
4. Smoke or abuse substances
5. Are experiencing stress or abuse

SC DHEC closely monitors reproductive health data to identify risk factors that contribute to low birth weight since reducing the risk of preterm delivery and low birth weight would likely contribute to an overall reduction in illness, disability or death of infants. Statewide, rates of low birth weight show a slow but steady decline over time. In Spartanburg, low birth weight rates are declining generally but show more variation around the state average. However, birth weight disparities are evident by race and ethnicity in Spartanburg County with black/African-American babies at much greater risk than white or Hispanic babies.



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Spartanburg LBW all	10.3	9.9	10.1	10	9.2	10.9	10.6	9.7	9.3	8.6	9.5
Spartanburg LBW Black	14.9	17	15.6	14.2	14.6	14.8	15.4	16.8	13.3	12.8	13.8
Spartanburg LBW White	9.7	7.6	8.2	9	7.7	10.4	9.5	7.7	8.1	7.3	8
Spartanburg LBW Hispanic	3.8	8.3	8.1	6.9	6.7	6.1	6.4	6.2	7.3	5.5	8.9
SC LBW	10.2	10.2	10.1	10.2	9.9	10	9.9	9.9	9.5	9.7	9.4

Data Source: Alliance for a Healthier South Carolina

The Alliance for a Healthier South Carolina reports that the racial disparity in low birth weight in Spartanburg County is 72.9% (that is, non-Hispanic blacks have 72.9% higher low birth weight rate than non-Hispanic whites) while the state disparity is 97.8%. The Alliance goal is to bring the state disparity to 78% by 2020. Of course, the ultimate desired disparity is 0%.

Maternal Prenatal Care

Good prenatal care is strongly associated with healthy birth weight and healthy babies. Conversely, delayed or insufficient prenatal care can be associated with low birth weight and other health risks for infants. The sooner mothers receive prenatal care, the better the outcomes are for mother and baby.

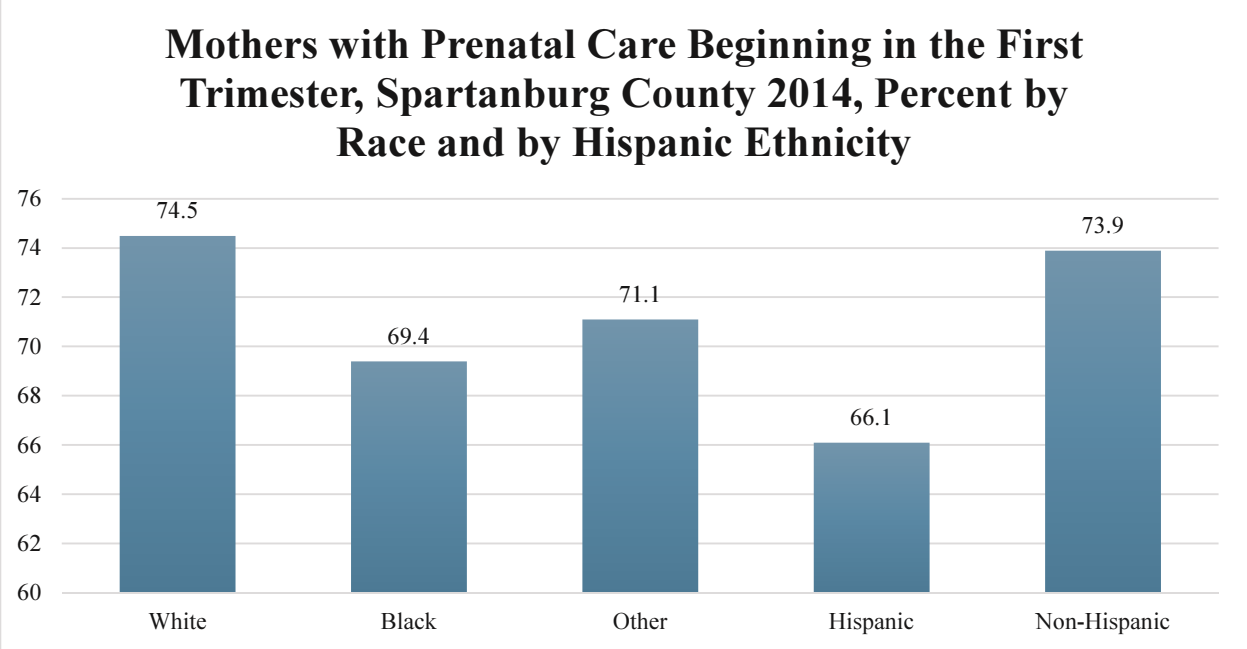
The table below demonstrates that the rate for first trimester prenatal care has been fairly consistent in Spartanburg County and in peer counties. For the combined year average, Spartanburg has a higher rate of first trimester prenatal care compared to peer counties and the state average. In fact, Spartanburg exceeds the state average on this measure annually.

Mothers with Prenatal Care Beginning 1st Trimester, Rates per 100 Live Births, Annual 2010-2014

	2010	2011	2012	2013	2014	2010-2014
Spartanburg	72.6	74.4	74.5	75.3	73.2	74.0
Greenville	75.8	75.5	72.6	68.2	73.3	73.1
Richland	68.9	68.8	69.4	66.2	68.1	68.3
Charleston	71.8	73.7	72.4	70.6	71.0	71.9
SC Average	72.1	71.7	71.9	70.0	70.3	71.2

Data Source: DHEC SCAN Community Profiles

When the single year (2014) data are examined by race and ethnicity for Spartanburg County, inequities in this measure are clear, with whites and non-Hispanics much more likely to receive prenatal care in the first trimester than blacks/African-Americans and Hispanics.



Data Source: DHEC SCAN Community Profiles

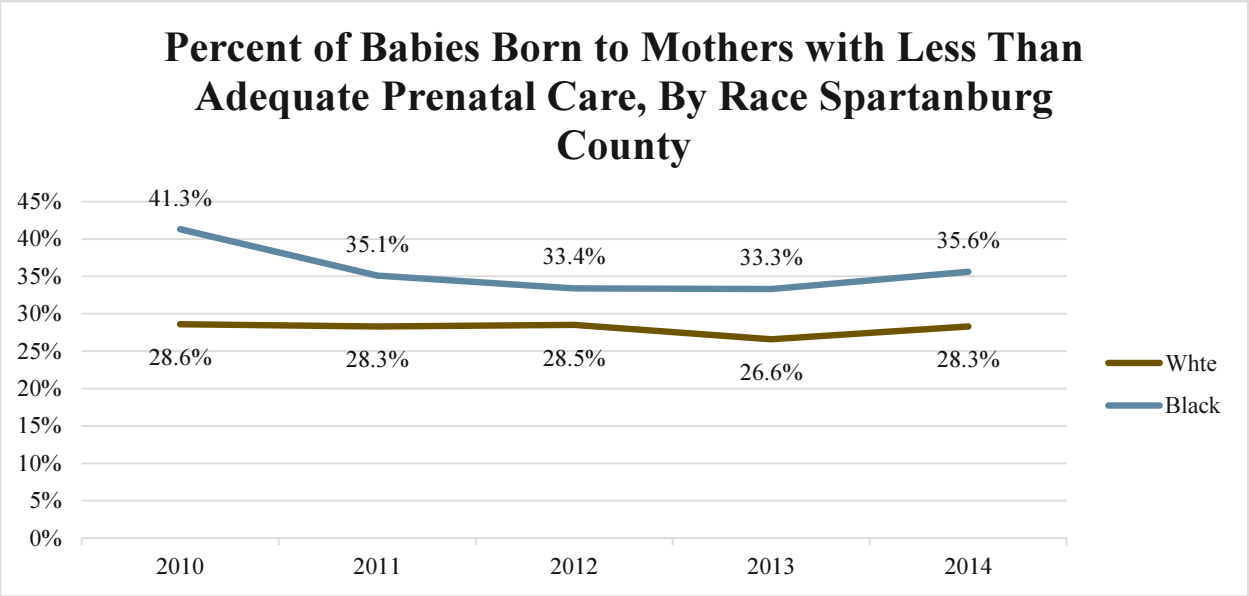
Spartanburg County continues to fare better than the state as a whole for percent of babies born to mothers who received less than adequate prenatal care. In fact, until 2014, there has been a generally decreasing trend in inadequate prenatal care for Spartanburg County while the trend for the state is fairly steady. "Less than adequate" is classified by the Kessner Index (determined by the trimester prenatal care began, the number of prenatal care visits, and the period of gestation).

Percent of Babies Born to Mothers with Less Than Adequate Prenatal Care

	2010	2011	2012	2013	2014
Spartanburg	31.8%	30.3%	29.8%	28.5%	30.1%
South Carolina	31.9%	32.2%	31.9%	32.3%	32.9%

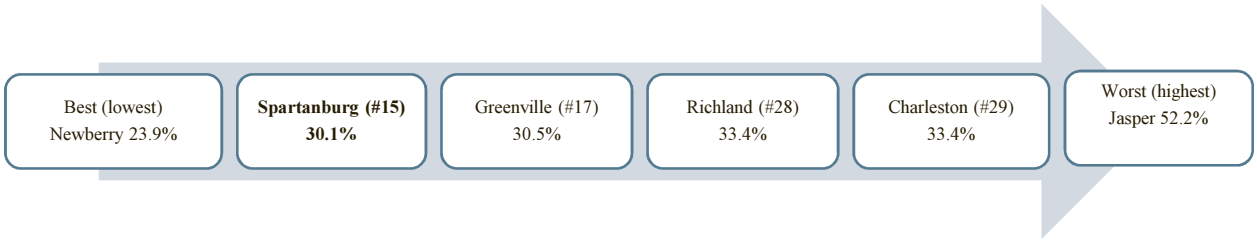
Data Sources: SC DHEC; Kids Count Data Center

When examined by race, it is clear that higher percentages of black/African American babies are born to mothers with less than adequate prenatal care, although disparity has narrowed in recent years.



Data Sources: SC DHEC, Kids Count Data Center

Compared to peer counties, Spartanburg had a lower percentage of babies born to mothers with less than adequate prenatal care in 2014, ranking 15th among the state's 46 counties. The graphic below demonstrates the wide range of this statistic across the state. Spartanburg and Greenville Counties fall below the state average of 32.9% for less than adequate prenatal care for 2014. Richland and Charleston Counties are slightly above the state average for less than adequate prenatal care, and in Jasper County, over half of mothers have less than adequate prenatal care.



Data Sources: SC DHEC; Kids Count Data Center

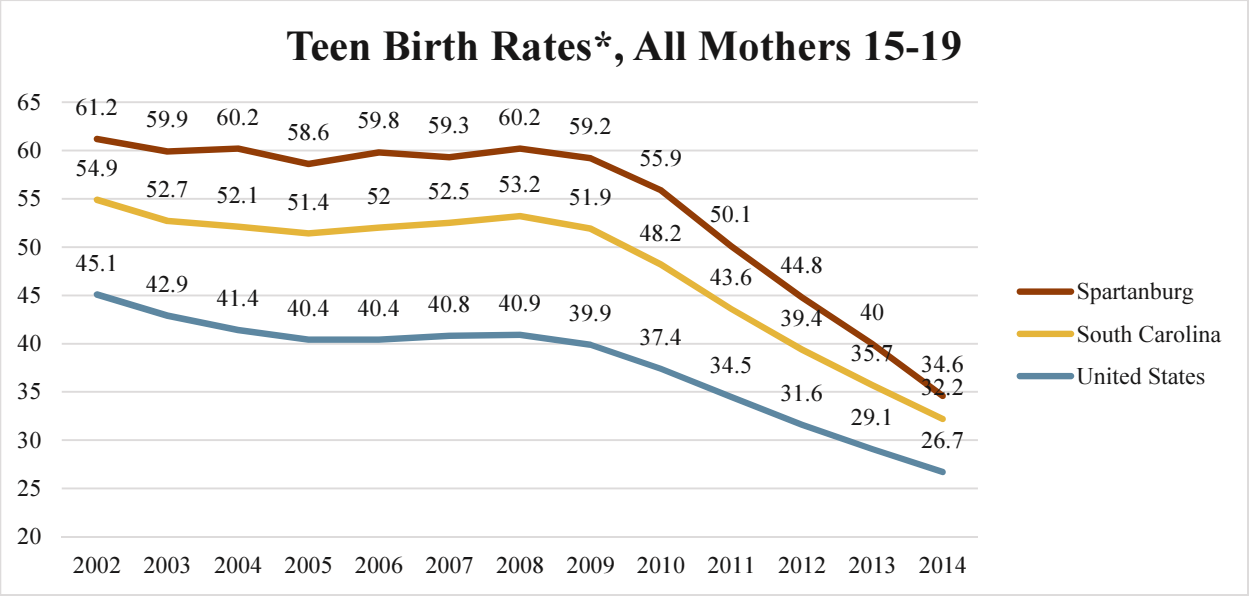
Teen Childbearing

In South Carolina, 1 in 4 girls will become pregnant before her 20th birthday. Teenagers are less likely to carry a pregnancy to the critical 39 weeks of gestation and are, therefore, more likely to have poor birth outcomes than women in their 20s and 30s. Moreover, teenage pregnancy is strongly associated with cyclical family poverty and reliance on child welfare systems. Children born of teenage mothers are significantly more likely to experience compromised health and well-being including low education, low workforce readiness, and continued poverty.

Since 1994, the South Carolina Campaign to Prevent Teen Pregnancy has been active in all 46 of the state's counties. In 2010, through the support of Spartanburg funders, community leaders, and a federal grant, the Campaign opened an office in Spartanburg to intensively address the county's

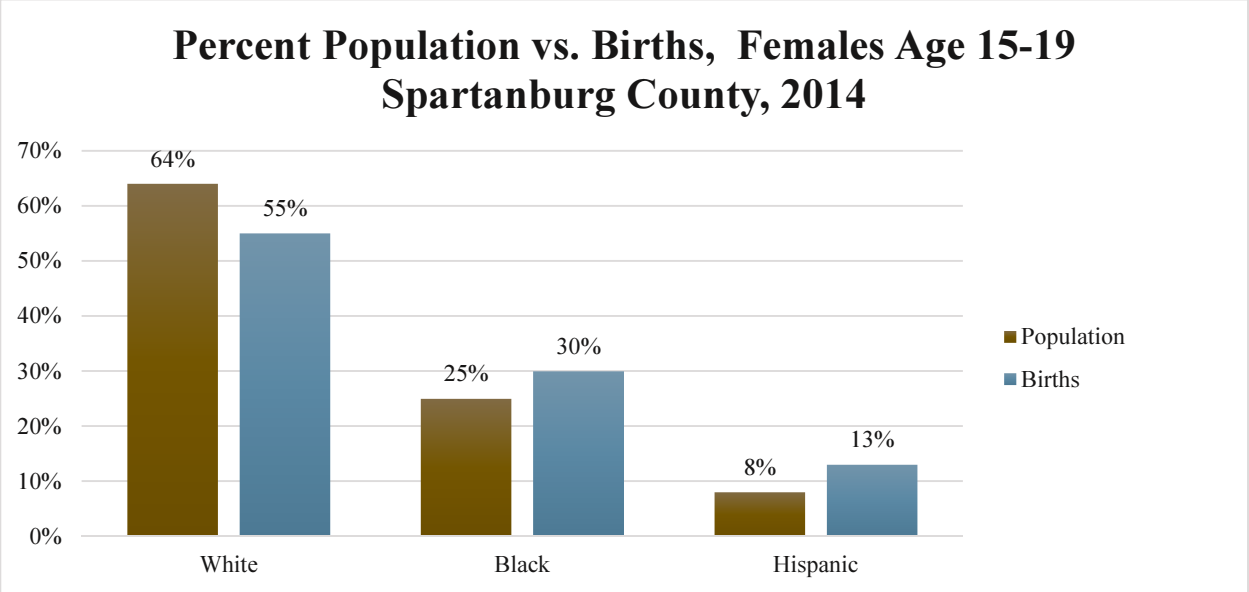
high teen birth rate. Collective efforts have been successful in reducing the teen birth rate in Spartanburg County by 47.5% from 2009 (56.9%) to 2014 (29.9%).

The graph below demonstrates the consistent decrease in teen births in Spartanburg County using rolling 3-year averages. The 2014 birth rate, 34.6 per 1,000 live births, is almost as low as the state.



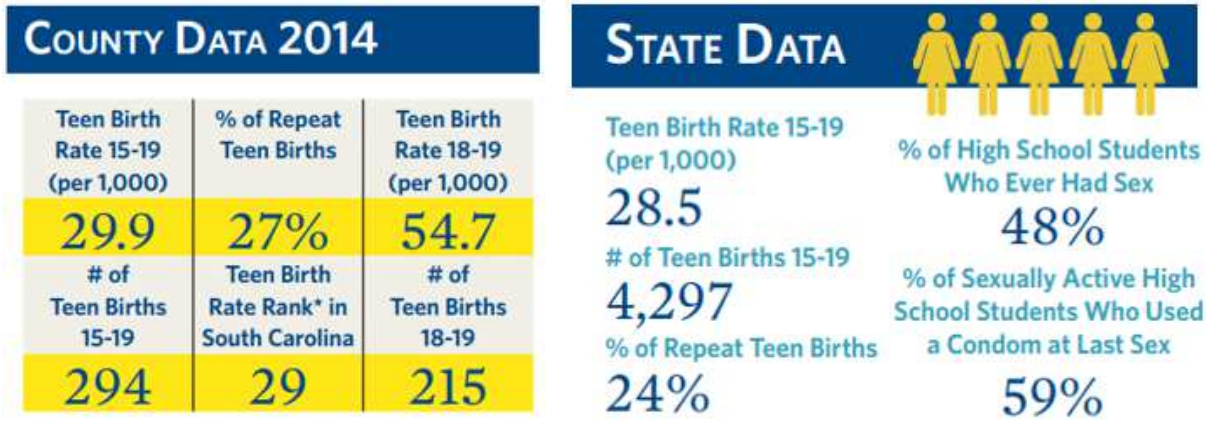
Data Source: SC Campaign to Reduce Teen Pregnancy
**Birth rates are rolling 3-year averages to control for fluctuations and produce more meaningful estimates.*

As illustrated below, in Spartanburg County in 2014, 55% of teen births were to white mothers, 30% were to black/African-American mothers, and 13% were to Hispanic mothers. However, proportionately, more black/African-American and Hispanic teens gave birth.



Data Source: SC Campaign to Prevent Teen Pregnancy

Despite significant progress, teen childbearing in Spartanburg County remains a serious concern. Currently, Spartanburg ranks 29th among the state's 46 counties for teen birth rate. Single year data for 2014 are:



Source: SC Campaign to Prevent Teen Pregnancy

Even with declining rates, the cost of teen childbearing in Spartanburg County remains significant. In Spartanburg County in 2014, there were 305 deliveries with complications to mothers age 15-19. There were an additional 6 deliveries without complications. (For mothers in their 20s and 30s, only 3% of deliveries in Spartanburg County are classified as "without complications.") The costs of these deliveries are reported in the table below (due to the low number, those without complications cannot be disaggregated by payor source), along with costs incurred separately for ED visits related to pregnancy and childbirth for this age cohort.

Inpatient Discharges for Births to Mothers Age 15-19, Spartanburg County, 2014

Payor	# Discharges	Total Charges	Average Charge†
Commercial / HMO	55	$1,057,618	$16,864
Medicaid	240	$3,163,427	$11,786
Self / Indigent	6	$67,257	$11,210
TOTAL (w/ complications)	**305**	**$4,323,056**	**$12,177**
TOTAL (w/o complications)	**6**	**$48,045**	**$8,008**

ED Visits* for Complications of Pregnancy or Birth, Age 15-19, Spartanburg County, 2014

Payor	# Discharges	Total Charges	Average Charge†
Commercial / HMO	96	$247,710	$2,160
Medicaid	227	$603,296	$2,110
Self / Indigent	29	$51,196	$1,765
TOTAL	**352**	**$902,202**	**$2,052**

Data Source: SC Revenue and Fiscal Affairs Office
**Does not include admission to inpatient hospitalization via the ED*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers.

The above costs do not include other inpatient hospitalization costs related to complications of pregnancy in this age group, approximately $200,000 for 2014. These data do not include two additional births to girls under age 15.

Sources:

Centers for Disease Control & Prevention: http://www.cdc.gov/nchs/fastats/infant-health.htm

DHEC SCAN Community Profiles: http://scangis.dhec.sc.gov/scan/index.aspx

Kids Count Data Center: http://datacenter.kidscount.org

SC Campaign to Prevent Teen Pregnancy: http://www.teenpregnancysc.org/county-info/spartanburg-county

SC Revenue & Fiscal Affairs Office, Health & Demographics Section: http://rfa.sc.gov/healthcare

LEADING INDICATOR II: Healthy Children

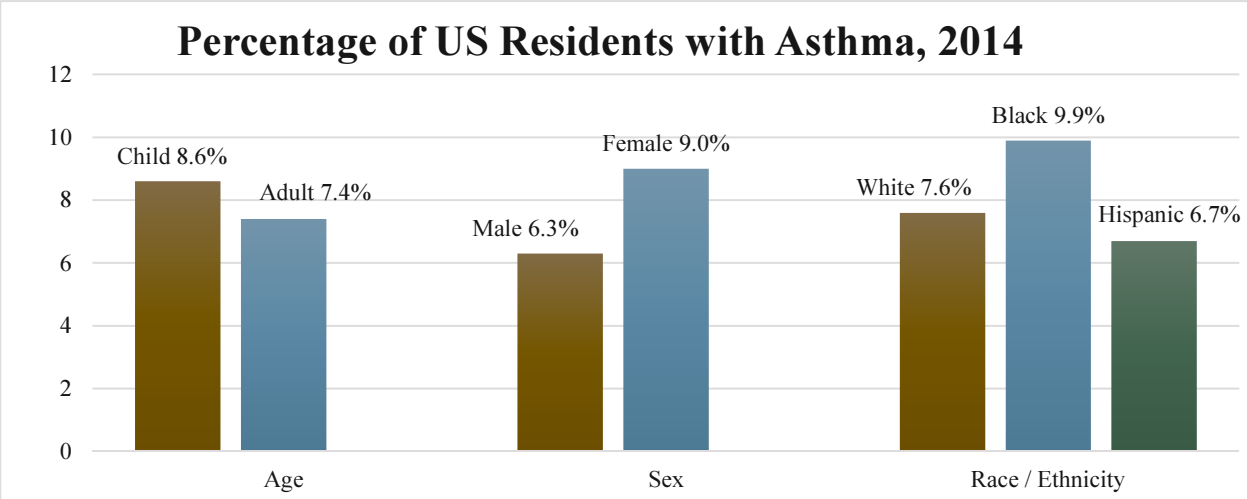
ALLIANCE FOR A HEALTHIER SOUTH CAROLINA GOAL: Improve the health of children and foster the conditions to enable future healthy decisions

Children's health is a priority issue not only at the state level through the Alliance for a Healthier South Carolina, but also in Spartanburg County. Numerous local organizations and funders collaborate and focus resources on children's health. Children are proportionately more sensitive than adults to physical, environmental, and socioeconomic factors that affect health outcomes and staying healthy is vital to proper growth and development of mind and body.

Asthma

One of the sub-goals of the Alliance for a Healthier South Carolina is to improve the health of children with asthma, especially pertaining to access to care and targeted to children who receive Medicaid.

Asthma is a chronic inflammatory disorder of the airways, characterized by recurrent, reversible airway obstruction in response to various stimuli associated with environmental toxins, other allergens, exercise, and cold air. Asthma is the most common chronic disease of childhood and its prevalence is increasing nationally and in South Carolina. Children, females, and blacks/African-Americans are more likely to have asthma.

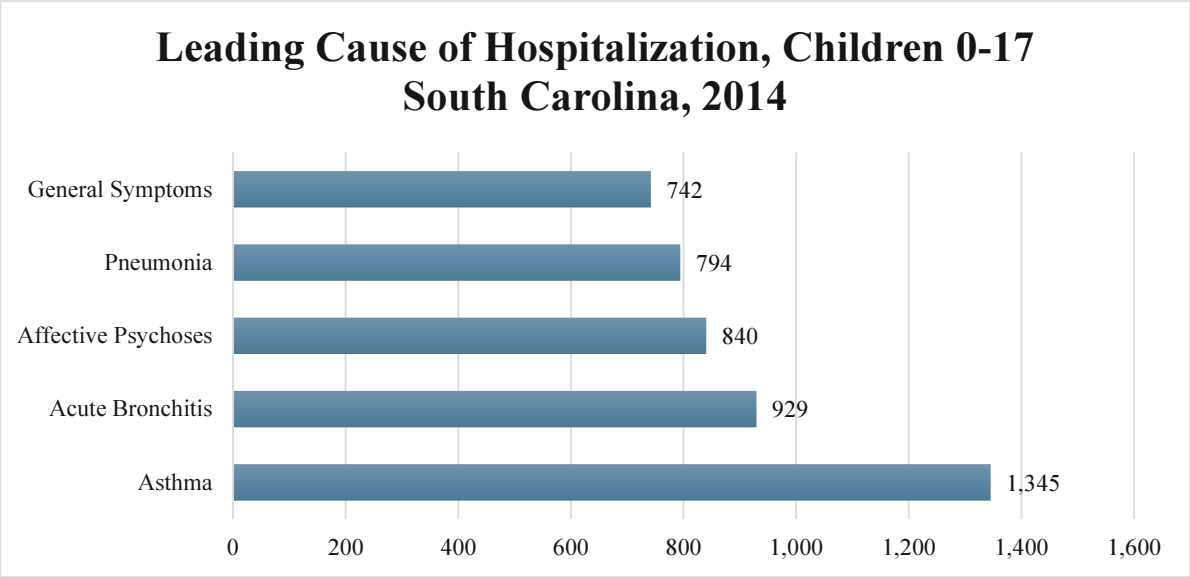


Data Source: Centers for Disease Control and Prevention

Currently, South Carolina ranks 20th (1 is best) among US states for children who experience asthma problems. The latest data from the National Survey of Children's Health show that 9% of children in South Carolina have asthma problems. According to data published in 2012 by SC DHEC Bureau of Community Health and Chronic Disease Prevention, approximately 293,200 adults (2010 estimate) and 90,005 children (2007 estimate) suffer from asthma in South Carolina. Asthma prevalence in South Carolina is highest among those under 18 years old. It is the most common chronic disease and the leading cause of disability among the state's children. Currently, between 10% and 14.3% of middle school students in South Carolina have asthma problems. Between 18.9% and 25.4% of middle school students have ever been told that they have asthma (2011). Between 9.2% and 13.7% of high school students in South Carolina have asthma problems, compared to

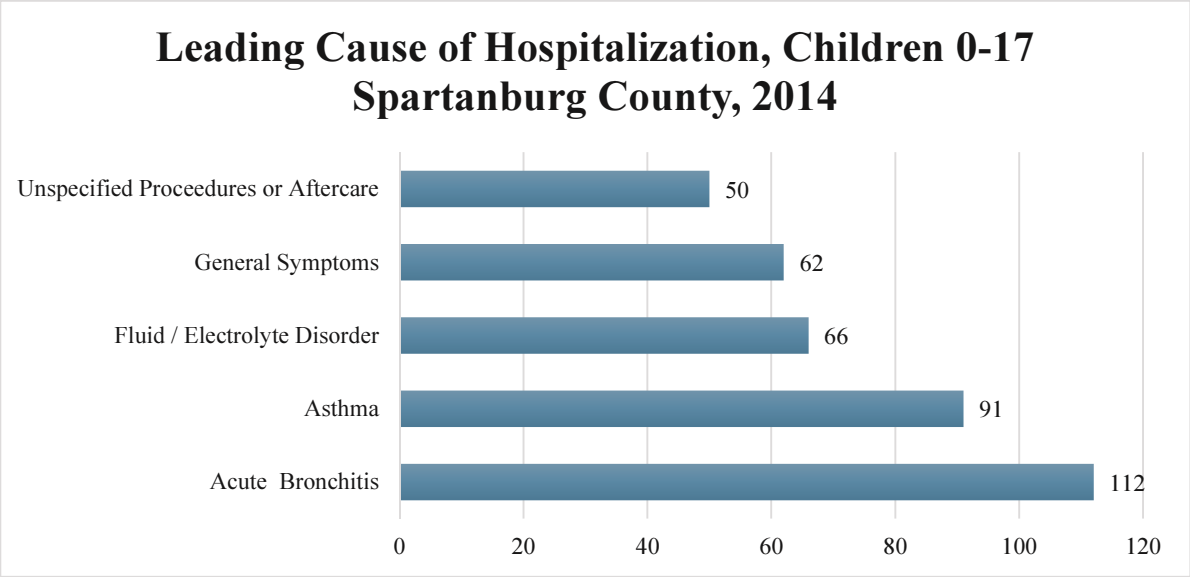
11.9% nationwide. Between 20.8% and 26.4% of high school students have ever been told that they have asthma, compared to 23% nationwide (2011).

The most accurate estimates of asthma prevalence in South Carolina come from hospital inpatient and Emergency Department (ED) data. Notably, people with asthma severe enough to need hospitalization or an ED visit may be the ones most in need of education and public health services. Asthma and related conditions were the leading cause of children's hospitalizations in South Carolina in 2014, with 1,345 admissions comprising 5.5% of all inpatient hospitalizations for this age group. Other leading causes of inpatient hospitalization - pneumonia and bronchitis - are diagnosed more frequently in children with asthma.



Data Source: SC Revenue & Fiscal Affairs Office

In Spartanburg County in 2014, asthma was the second leading diagnosis for inpatient hospitalization for children, comprising 5.9% of all inpatient hospitalizations for this age group.



Data Source: SC Revenue & Fiscal Affairs Office

Analysis of 2014 inpatient hospitalization data for Spartanburg County show that asthma is:

- The 2nd most common inpatient diagnosis in 2014 for children age 0-10 with 74 discharges
- The 2nd most common inpatient diagnosis in 2014 for children age 0-5 with 50 discharges
- The 8th most common inpatient diagnosis in 2014 for children age 11-18 with 17 discharges

Children in South Carolina visited the ED more than 10,000 times for asthma in 2014. In Spartanburg County, there were 591 visits to the ED by children for asthma. The total costs of these visits to the ED was $1,031,674 with approximately 70% covered by Medicaid.

ED Costs* for Asthma by Payor Source, Age 0-17, Spartanburg County, 2014

	Visits	Total Charge	Average Charge†
Commercial / HMO	143	$275,834	$1,658
Medicaid	426	$722,118	$1,340
Medicare	Not reported**	Not reported**	Not reported**
Self / Indigent	18	$29,523	$1,257
Total	**591**	**$1,031,674**	**$1,424**

Data Source: SC Revenue and Fiscal Affairs Office
**Excludes inpatient admission from ED*
*** Data for fewer than 5 visits are not reported*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

Analysis of 2014 Emergency Department data for Spartanburg County show that asthma is:

- The 8th most common ED diagnosis in 2014 for children age 0-10 with 481 discharges
- The 11th most common ED diagnosis in 2014 for children age 0-5 with 246 discharges
- The 18th most common ED diagnosis in 2014 for children age 11-18 with 130 discharges

The table below shows mixed findings when Spartanburg is compared to peer counties and the state average on ranking of asthma diagnosis in the ED and inpatient hospitalization for different age cohorts.

Ranking of Asthma Diagnosis, County Peers and SC, ED and Inpatient, 2014

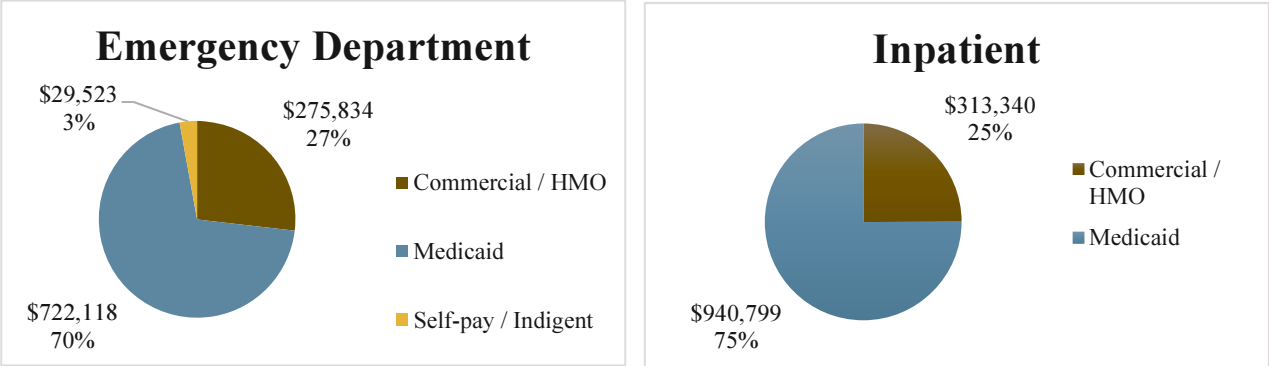
	Spartanburg	Greenville	Richland	Charleston	SC
Emergency Department Asthma Rank					
Age 0-10	8	7	9	7	6
Age 0-5	11	12	9	9	11
Age 0-18	18	14	10	8	15
Inpatient Asthma Rank					
Age 0-10	2	2	1	1	1
Age 0-5	2	5	2	1	2
Age 0-18	8	32	12	8	13

Source: SC Revenue and Fiscal Affairs Office

In 2014 in Spartanburg County, total charges for Emergency Department visits for asthma for residents age 0-17 were $1,031,674. Total charges for inpatient treatment for asthma were an

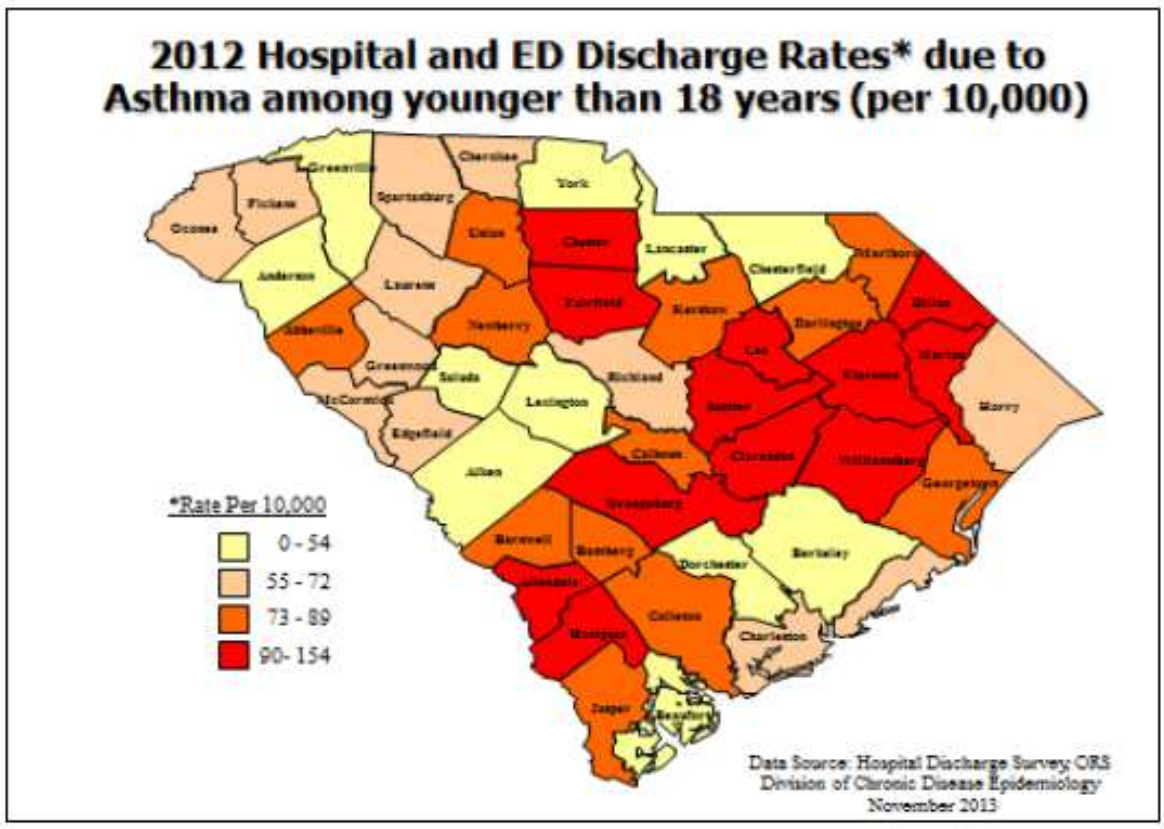
additional $1,335,023. The primary payor source for asthma is Medicaid, for both Emergency Department and inpatient treatment.

Payor Sources for Asthma Age 0-17, Spartanburg County, 2014



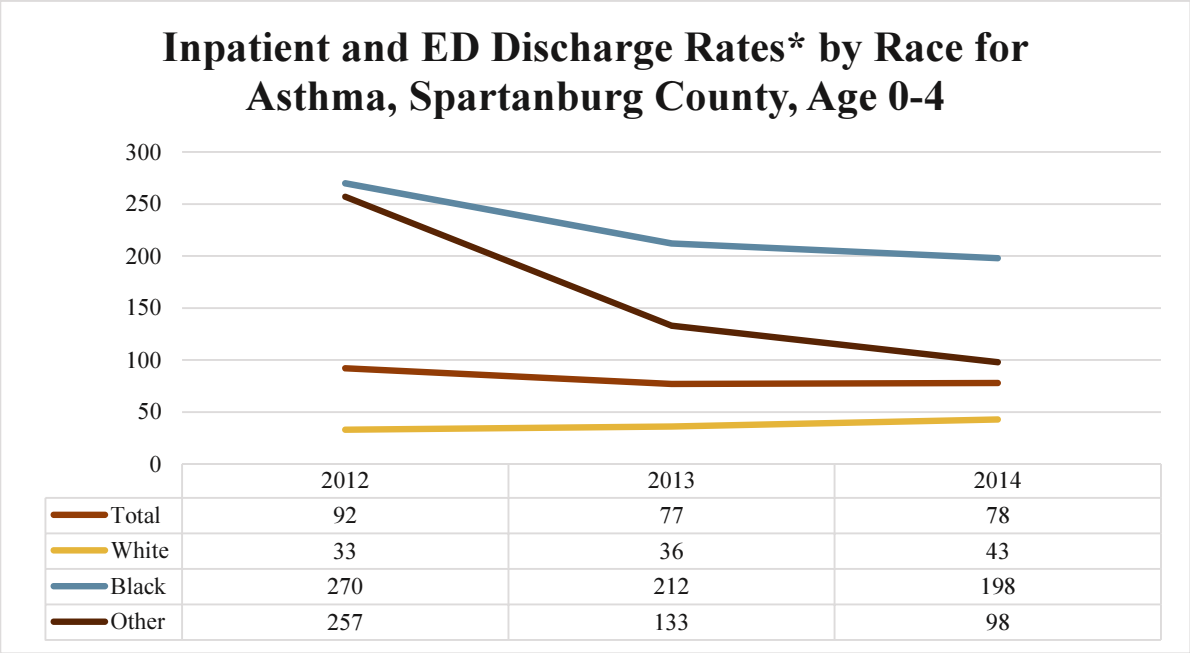
Data Source: SC Revenue & Fiscal Affairs Office

Mapping of inpatient and ED pediatric asthma discharges by county for 2012 (the latest available map) shows that Spartanburg County had a lower rate than many of the state's other counties.



Source: SC DHEC

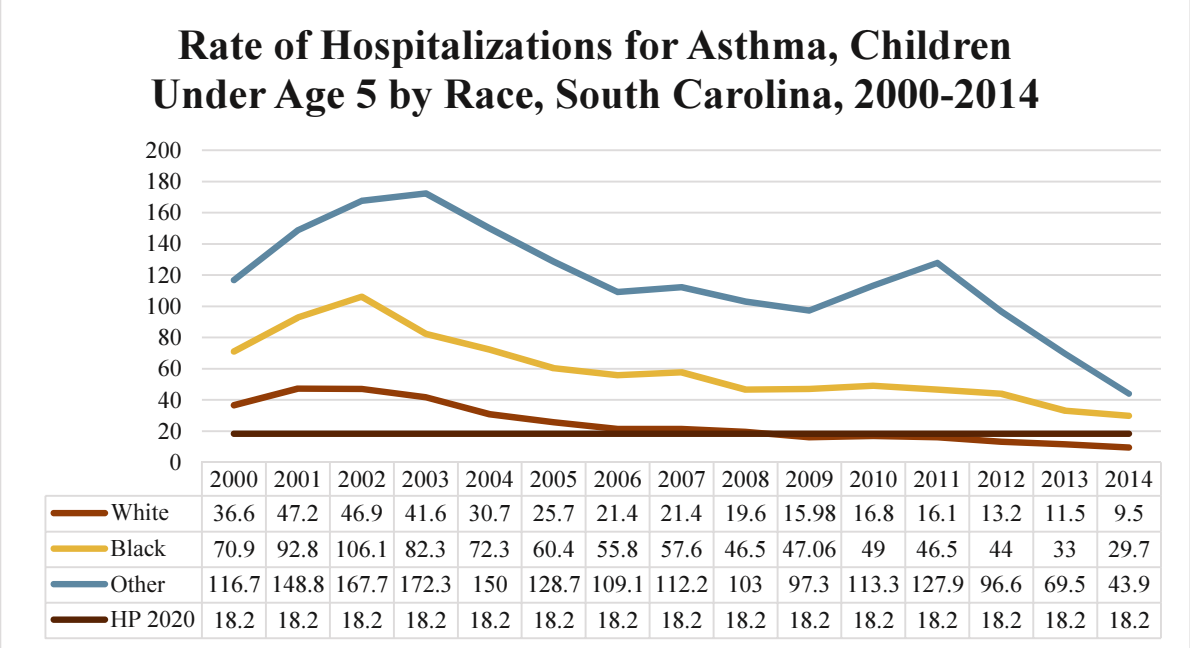
Racial inequities in incidence and prevalence of asthma in very young children are significant and are reflected in the graphic below. Although the rate of asthma (as measured by hospital discharge data) is decreasing for black/African-American and other nonwhite young children, the disparity in Spartanburg County is stark.



	2012	2013	2014
Total	92	77	78
White	33	36	43
Black	270	212	198
Other	257	133	98

Data Source: SC Revenue and Fiscal Affairs Office
**Per 100,000 population*

Statewide data, provided by SC DHEC, also demonstrate clear inequities.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
White	36.6	47.2	46.9	41.6	30.7	25.7	21.4	21.4	19.6	15.98	16.8	16.1	13.2	11.5	9.5
Black	70.9	92.8	106.1	82.3	72.3	60.4	55.8	57.6	46.5	47.06	49	46.5	44	33	29.7
Other	116.7	148.8	167.7	172.3	150	128.7	109.1	112.2	103	97.3	113.3	127.9	96.6	69.5	43.9
HP 2020	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2

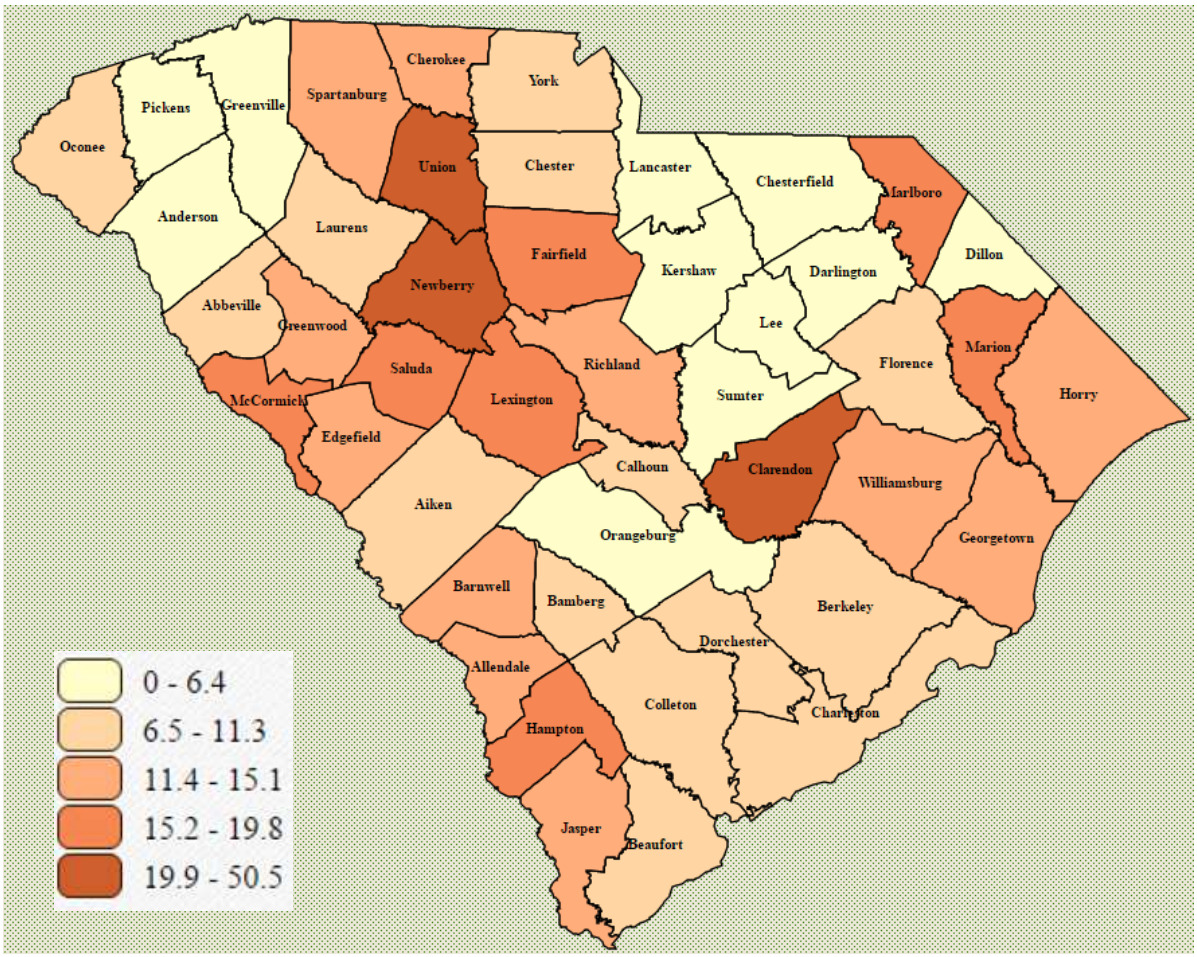
Source: SC DHEC

Lead Exposure

Childhood lead poisoning is considered the most preventable environmental disease among young children, yet approximately 500,000 US children have blood levels of lead higher than the acceptable standard of 5 micrograms per deciliter (> 5µg/dL). Because their organs and tissues are rapidly developing and because they tend to have more exposure to potential sources of lead, children are most at risk for lead poisoning. Lead affects the neurological system and exposure can cause cognitive impairment. Lead poisoning can cause comas, seizures, and death.

The Centers for Disease Control and Prevention (CDC) recommends testing more lead-exposed children and fewer children without lead exposure. This is accomplished with targeted testing which is based on an evaluation of risk by the child's regular health care provider, particularly at ages 12 and 24 months. By law, all blood lead testing results are reported to SC DHEC from doctor's offices and labs when a test is done in SC. In 2014, 12.1% of children under age 36 months and 1.6% of children between 36 and 72 months in Spartanburg County were tested for lead exposure.

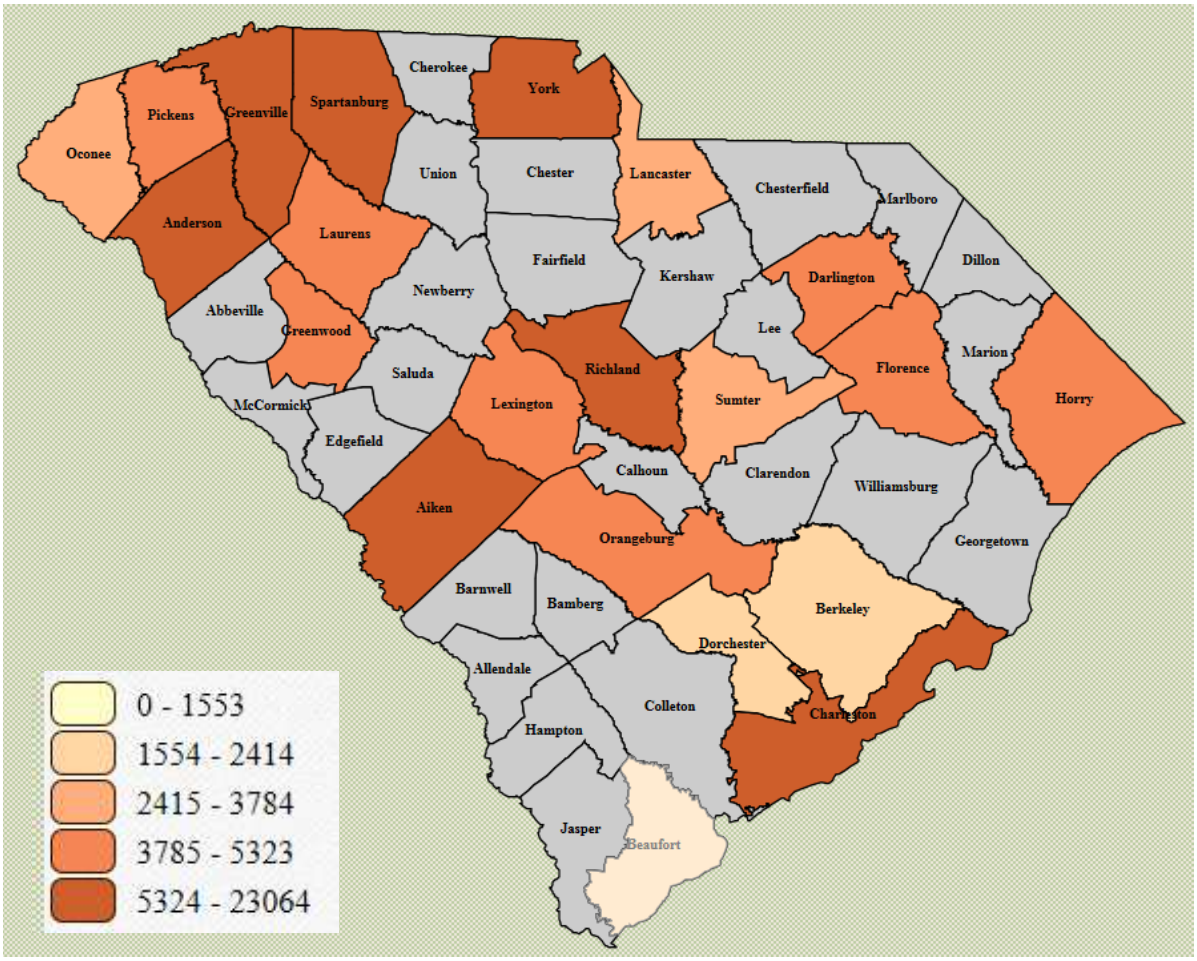
Percent of Children Tested for Lead Exposure, 2014



Source: SC DHEC

Houses built before 1978 were routinely painted with lead-based paint. The older the house is, the more risk there is of deteriorating lead paint that can be ingested or inhaled by children. As of 2014, SC DHEC reports that there are 13,806 houses in Spartanburg County that were built prior to 1950.

Number of Pre-1950's Houses, 2014



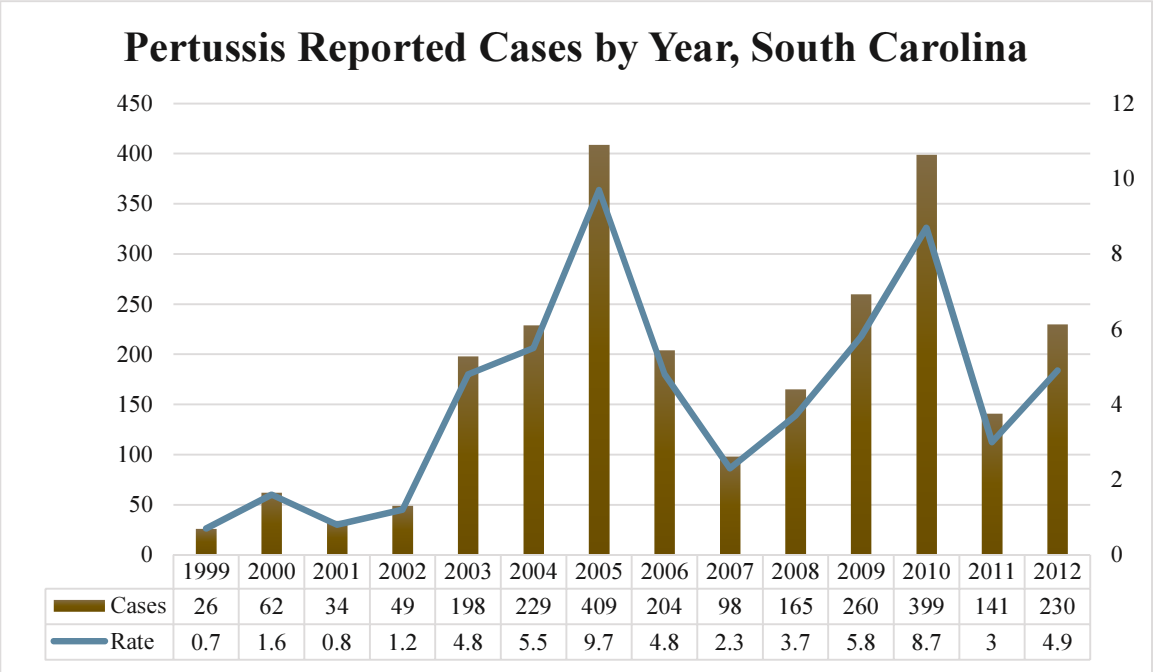
Source: SC DHEC

Vaccinations

Immunization is considered one of the top 10 public health achievements of the 20th century. Because of widespread vaccination efforts, many infectious diseases such as smallpox, rabies, typhoid, cholera, and plague have been eradicated or controlled in the US. However, certain populations remain vulnerable to diseases and some diseases such as measles and pertussis have seen a resurgence in recent years.

In South Carolina, pediatric vaccination coverage rates in the 19-35 month cohort are similar to other Southern states. Children below the poverty level have lower vaccination rates for many vaccines; 1 in 12 US children don't get the first dose of the Measles-Mumps-Rubella (MMR) vaccine on time. Communities with lower MMR coverage rates are more vulnerable to outbreaks. Since 2000, when measles was declared eliminated from the US, the annual number of people reported to have measles ranged from a low of 37 people in 2004 to a high of 668 people in 2014 (189 in 2015). Most of these cases originated outside the country or were linked to a case that originated outside the country.

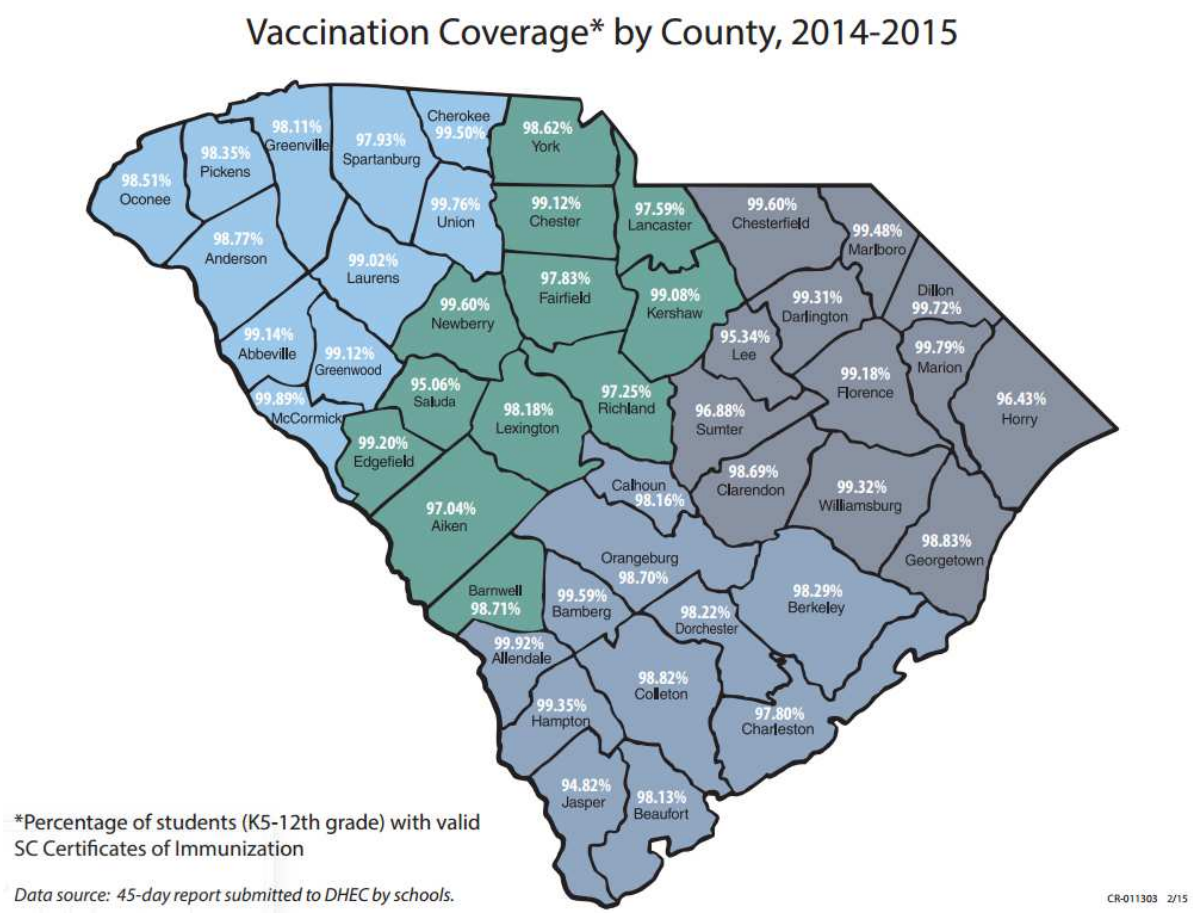
A resurgence of pertussis, a respiratory illness commonly known as whooping cough, is a significant public health concern. Babies receive the pertussis vaccine as part of the DTaP series (which also protects them against diphtheria and tetanus). The DTaP vaccine series is given starting at 2 months. Children who haven't received DTaP vaccines are at least 8 times more likely to get pertussis than children who received all 5 recommended doses. The latest data show that in 2012 there were 230 cases of pertussis in South Carolina (4.9 per 100,000 population). In Spartanburg County, there were 11 cases (3.8 per 100,000 population). In 2009, 4 cases were reported in Spartanburg County.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cases	26	62	34	49	198	229	409	204	98	165	260	399	141	230
Rate	0.7	1.6	0.8	1.2	4.8	5.5	9.7	4.8	2.3	3.7	5.8	8.7	3	4.9

Source: SC DHEC, Division of Acute Disease Epidemiology

Although lack of vaccination is not the only reason for outbreaks of infectious disease, it does put children at greater risk of contracting serious infection and possibly spreading it to other family members and the wider community. Vaccine coverage of school-age children is high in all of the state's counties. Based on school reports to SC DHEC for 778,588 students on the 45th day of school for the 2014-2015 school year, 5,826 (0.75%) students had a religious exemption from vaccination and 1,540 (0.2%) had a medical exemption. Approximately 98% of Spartanburg County school-age children have valid certificates of immunization; however, SC DHEC reports that 777 school-age children in Spartanburg County have been granted exemptions from vaccination based on religious reasons and an additional 73 for medical reasons.



Source: SC DHEC

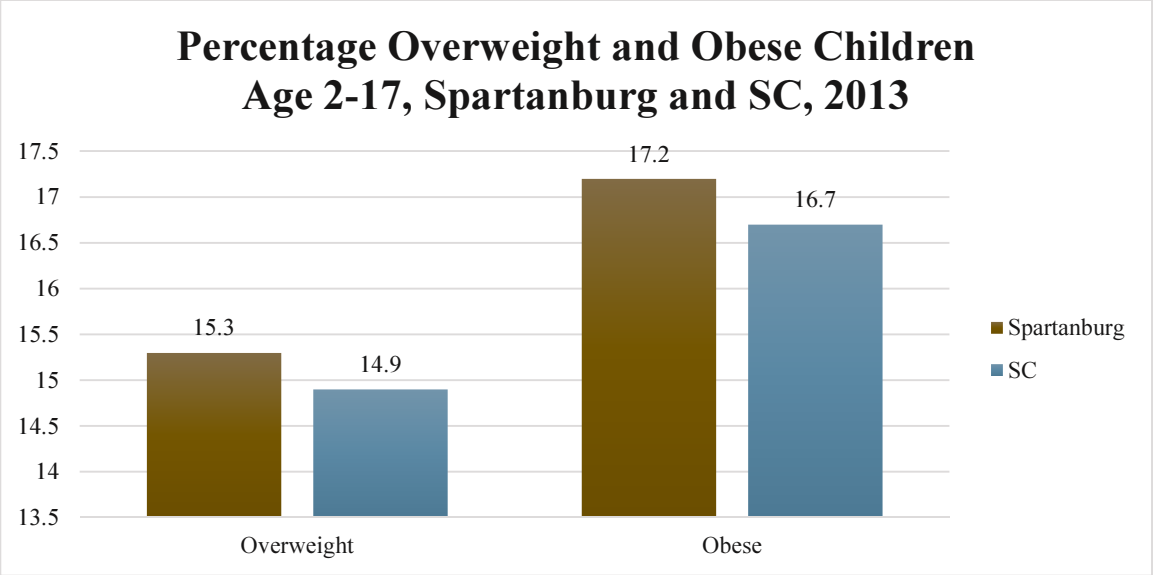
Pediatric Obesity

Reducing pediatric obesity remains one of the nation's top public health priorities. Children who are obese have immediate risk factors for cardiovascular disease and are more likely to have high blood glucose levels and the attendant risk of developing diabetes. They are also more likely to have bone and joint problems, sleep apnea, and social and psychological problems. Long term health effects of childhood obesity include increased risk for many types of cancer, osteoarthritis, and stroke.

The Centers for Disease Control and Prevention (CDC) reports that obesity among children age 2-19 has not changed significantly since 2003-2004 and remains at about 17%. More than 23.5 million children and adolescents in the United States - nearly 1 in 3 - are either obese or overweight. It is expected that current pediatric obesity rates will result in today's children having shorter life expectancy than their parents. Pediatric obesity is also expensive both to the individual and to the community. A model proposed by the Brookings Institution demonstrates that, on average, the per person, lifetime societal costs are $92,235 greater for a person with obesity ($2013). Using this estimate, if all 12.7 million US youth with obesity became obese adults, the societal costs over their lifetime may exceed $1.1 trillion.

More than 30% of South Carolina high school students are overweight or obese. In young children, obesity is especially prevalent in low-income populations with 1 in 3 low-income South Carolina children age 2-5 years being overweight or obese.

SC DHEC data for 2013 show that Spartanburg County children have a higher percentage of overweight and obesity compared to the state average as reflected in the graph below. These one year estimates are best used when analyzing large populations and are less reliable than multiple year estimates; however, they are useful for understanding the magnitude of obesity as a public health burden.



Data Source: SC DHEC

In Spartanburg County, the Road to Better Health established 2011 baselines by implementing the Spartanburg County Body Mass Index (BMI) Project. It is a collaborative effort of all Spartanburg County School Districts, SC DHEC Upstate Region, and the Spartanburg Childhood Obesity Task Force (SCOTF) of the Road to Better Health to create an aggregate community indicator through ongoing local surveillance using a census method rather than a sampling method. The BMI Project is associated with a local campaign, Good for You Spartanburg, which was created by the SCOTF to capture the broad-based grassroots, nonprofit, institutional, and governmental support for the development of a healthy Spartanburg County.

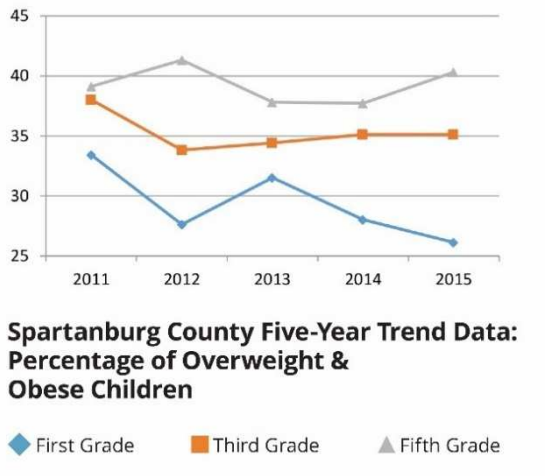
The following data were collected on younger children in all of Spartanburg County's seven public school districts (and in private schools some years) through the BMI Project. The data show mixed trends, but a decrease in overweight/obesity for combined grades from 2011 to 2015.

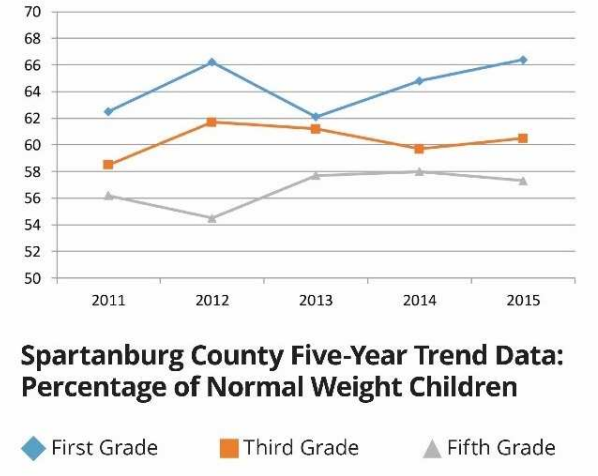
Percentage of Overweight & Obese 1st, 3rd and 5th Grade Children, Spartanburg County

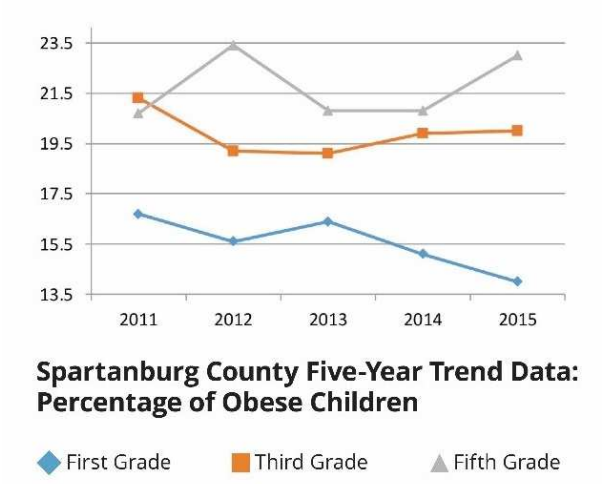
	2011	2012	2013	2014	2015
1st Graders	33.4	27.6	31.5	28.0	26.1
3rd Graders	38.0	33.8	34.4	35.1	35.1
5th Graders	39.1	41.3	37.8	37.7	40.3
1st, 3rd, & 5th Graders	**36.9**	**34.0**	**34.5**	**33.3**	**33.7**

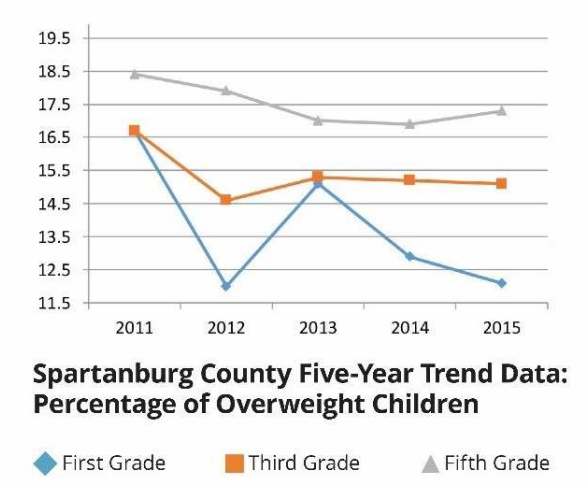
Data Source: SC DHEC Body Mass Index Reports

The BMI Project published the following graphics to illustrate the 5-year trend in BMI data for the county's 1st, 3rd, and 5th graders, disaggregated by weight status.









Source: SC DHEC 2015 Body Mass Index Report

Because overweight and obesity essentially derive from a deficit of energy expenditure, i.e., consuming more calories than are burned, physical activity data and healthy food intake data are important indicators. SC DHEC data from 2013 show that Spartanburg County children age 2-17 have essentially the same behaviors on three of these measures as South Carolina children in the aggregate.

Physical Activity & Nutrition Indicators, Children Age 2-17, 2013

	Spartanburg	SC
60 minutes or more of physical activity daily	27.4%	28.2%
Consume less than one serving of fruits daily	5.5%	5.5%
Consume less than one serving of vegetables daily	6.3%	6.2%

Data Source: SC DHEC

The Spartanburg Obesity Taskforce makes the point that:

> Local policies and the physical environment influence daily choices that affect our health and our weight. For example, children who live in unsafe neighborhoods may be restricted to watching television indoors instead of playing outside after school. Families living in neighborhoods that are zoned exclusively for residential use must drive to work and school because it is too far to walk. Communities that lack full-service grocery stores and neighborhood food markets have less access to fresh fruits and vegetables. On the other hand, policies that establish physical activity requirements and nutrition standards in schools and daycare facilities can promote the health and well-being of children.

Hospital Utilization

Asthma is the top diagnosis for inpatient treatment in Spartanburg County for nonwhite children age 0-10 and the 3rd most common diagnosis for white children of the same age group. In older pediatric populations in Spartanburg, the 2nd and 5th top diagnoses for white children are related to psychiatric conditions, while the 2nd, 3rd and 5th top diagnoses for nonwhite children are related to childbirth.

Top 5 Reasons for Pediatric Inpatient Treatment, Spartanburg County by Age Group & Race

AGE 0-10

White	Nonwhite
Acute bronchitis and bronchiolitis	Asthma
Disorders of fluid, electrolyte, and acid-base balance	Acute bronchitis and bronchiolitis
Asthma	General symptoms
General symptoms	Pneumonia, organism unspecified
Pneumonia, organism unspecified	Hereditary hemolytic anemias

AGE 11-18

White	Nonwhite
Encounter for other and unspecified procedures and aftercare	Diabetes Mellitus
Affective psychoses	Trauma to perineum and vulva during delivery
Trauma to perineum and vulva during delivery	Other current conditions in the mother classifiable elsewhere, but complicating pregnancy, childbirth, or the puerperium
Diabetes Mellitus	Asthma
Depressive disorder, not elsewhere classified	Other indications for care or intervention related to labor and delivery, not elsewhere classified

Data Source: SC Revenue and Fiscal Affairs Office

Youth Tobacco Use

No recent county-level data are available for youth tobacco use. The Communities That Care Survey, done in 2010 and 2013 in Spartanburg County, yielded extensive data for Spartanburg County youth relative to tobacco and other drug use among the county's youth. However, neither the Communities That Care Survey nor the national Youth Risk Behavior Surveillance System

survey have been done in Spartanburg County in recent years. Thus, state level data provide the closest estimate of youth behavior in Spartanburg County relative to tobacco and other drug use.

The South Carolina Youth Tobacco Survey (SC YTS) is a national survey administered biannually by SC DHEC in selected middle schools and high schools across the state. It measures prevalence of tobacco use, age of initiation, and access to tobacco products. It also includes data on school curriculum, knowledge and attitudes toward cessation and readiness to quit, mass media influences, and secondhand smoke exposure. Initially conducted in 2005, it was last administered in 2013 and will be administered again in 2017. Schools are chosen randomly throughout the state for participation, but county-level data are not provided. Because 2015 results have not yet been released, a synopsis of findings from the 2013 SC Youth Tobacco Surveys for both middle schools and high schools in South Carolina is provided below.

SC Youth Tobacco Survey Results, Middle and High Schools, South Carolina, 2013

	Middle School	High School
% of students who had ever used any tobacco product	31.2% (Male 34.2%, Female 28.1%)	59.0% (Male 60.5%, Female 57.3%)
% of students who had ever smoked cigarettes	22.7% (White 21%, Black 26.2%, Hispanic 22.7%)	48.7% (White 51.2%, Black 44.1%, Hispanic 38%)
% of students who currently use any tobacco product	9.7% (Male 11.3%, Female 8.0%)	27.2% (Male 32.1%, Female 21.9%)
% who currently smoke cigarettes	4.8% (White 5.8%, Black 4.3%, Hispanic 5.3%)	23.7% (White 26.8%, Black 13.7%, Hispanic 20%)
% who currently use Smokeless Tobacco (SLT)	3.4% (Male 5.1%, Female 1.7%)	9.0% (Male 15.3%, Female 2.3%)
% exposed to secondhand smoke in their home in the past month	26.2%	31.5%
% exposed to secondhand smoke in a vehicle in the past month	27.9%	38.3%
% who want to quit smoking	44.0%	41.0%
% who attempted to quit smoking in the past year	74.9%	58.1%
% taught the dangers of tobacco in the past year	51.4%	28.3%
% who said their school has a program to help students quit using tobacco	6.3%	6.9%
% who buy cigarettes in stores	6.7%	22.9%
% who get cigarettes via social sources (friends, family & others)	70.6%	81.2%

Source: SC DHEC

The Spartanburg Community Alcohol and Drug IMPACT Coalition, coordinated through the Forrester Center for Behavioral Health (formerly Spartanburg Alcohol and Drug Abuse Commission) delivers Tobacco Prevention Strategies to address youth tobacco use in Spartanburg County. Strategies include restricting access to tobacco products through enforcement, changing social norms around tobacco use, advocating for policy change, and promoting peer to peer support.

Oral Health

Dental cavities are the most prevalent chronic disease among children. Oral diseases, including oral infection and periodontal disease, can cause pain, systemic infection, and tooth loss, resulting in problems with eating, speaking, playing, and learning. An estimated 52 million school hours nationwide are lost each year due to oral disease. Poor dental health can also lead to more serious and systemic medical conditions like respiratory diseases, diabetes, heart disease, and poor birth outcomes to teen parents including pre-term birth and low birth weight. It can also lead to death.

According to 2012 data provided by the Centers for Disease Control and Prevention (CDC):

- About 1 of 5 (20%) children age 5 to 11 years has at least one untreated decayed tooth
- 1 of 7 (13%) adolescents age 12 to 19 years has at least one untreated decayed tooth
- The percentage of children age 5-19 with untreated tooth decay is twice as high for those from low-income families (25%) compared with children from higher income households (11%).

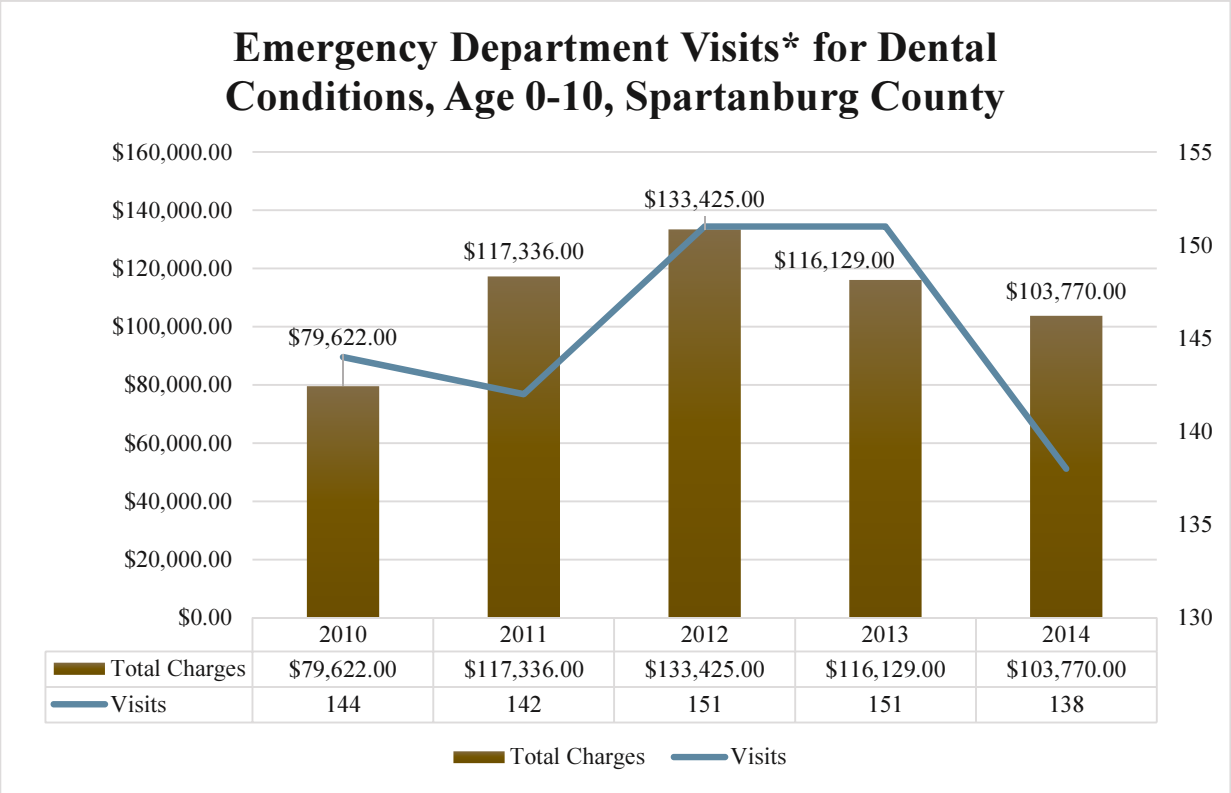
Many children are not able to obtain the dental care they need due to cost barriers, a shortage of dental health professionals in their area, or other reasons. As with other conditions, the Emergency Department (ED) is the default provider of dental services for people, including children, who have no other resources to obtain care. The table below provides ED utilization data for children under 18 in Spartanburg County. Of those children seen in the ED for dental conditions, most were covered by Medicaid, calling into question the availability or accessibility of providers who accept Medicaid. The total ED charges for pediatric dental visits in Spartanburg County in 2014 was $103,770.

Emergency Dept. Visits* for Dental Conditions, Age 0-18, Spartanburg County, 2014

Payor	Visits	Total Charges	Average Charge†
Commercial / HMO Total	**28**	**$24,829**	**$778**
– White	16	$15,965	$809
– Nonwhite	12	$8,864	$692
Medicaid Total	**98**	**$70,467**	**$594**
– White	51	$43,074	$605
– Nonwhite	47	$27,394	$549
Self / Indigent Total	**11**	**$7,889**	**$601**
– White	Not Reported**	Not Reported**	Not Reported**
– Nonwhite	7	$5,496	$603
TOTAL	**138**	**$103,770**	**$641**
– WHITE	71	$61,431	$650
– NONWHITE	67	$42,338	$587

Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Includes admissions to inpatient via ED*
***Data are not reported for less than 5 visits*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

The recent trend in Spartanburg County ED usage for dental conditions in pediatric populations is positive. Between 2012 and 2014, there was a 22.2% decrease in ED usage.



Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Includes admissions to inpatient via ED*

Healthy People 2020 is the CDC's framework to improve the health of all Americans. The overarching goals of *Healthy People 2020* are to increase quality and years of healthy life and eliminate health disparities. Oral health goals for children are to reduce the number of children who have dental decay and to reduce the number of children who have untreated dental decay. Initiatives that focus on community water fluoridation and school-based dental sealant programs are highly effective and have their own targets under the Healthy People 2020 framework.

In Spartanburg County, Healthy Smiles promotes dental care for children through outreach, education, and free screenings for all children as well as free dental care clinics for children grades K4-12 who live in Spartanburg County, qualify for free or reduced-cost school meals, and who do not have private dental insurance or Medicaid.

SPOTLIGHT ON BEST PRACTICES: Healthy Smiles

Since the inception of the Healthy Smiles FREE dental clinic in 2007, located at the Spartanburg Community College central campus, over 3,700 children have been treated - approximately 450 children annually. Still, screening data indicate that remaining need for dental care for Spartanburg County Children is extensive.

In 2008, Healthy Smiles began a school-based screening program, reaching over 20,800 children annually – a total of more than 115,000 Spartanburg County children. At least 20% screen positive for dental needs. Of the 4,264 children whose dental needs were discovered in 2015, only 452 (10.6%) took advantage of the Healthy Smiles Free Dental Clinic. Of these, 1,243 needed urgent dental care.

In the 2015-2016 academic year, Healthy Smiles implemented a Free Mobile Dental Clinic pilot program. In one of the 7 school districts, over 4,100 children were screened, of which, 709 children screened poorly. Half of the children who screened poorly have Medicaid but are not taking advantage of their benefits either due to transportation issues or other reasons. Further, of the 709 children who screened poorly, only 79 of these children's parents signed them up to be seen in the Free Mobile Clinic. Healthy Smiles focuses on prevention and education to address the "silent epidemic" of poor dental health in children.

Sources:

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Good for You Spartanburg: www.goodforyouspartanburg.org

Heidari, K., SC DHEC. The Burden of Asthma in South Carolina. Presentation at the 2012 Asthma Summit: http://scasthmaalliance.org/SC%20Asthma%20Burden%20Rev.pdf

Healthy Smiles: http://healthysmilesonline.org/

Prevention Institute: www.preventioninstitute.org

SCale Down: http://scaledown.org/

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SC DHEC Chronic Disease Epidemiology Division: http://www.scdhec.gov/Health/docs/Epi/obesity/Spartanburg.pdf

SC DHEC, Environmental Public Health Tracking Program: http://infoweb02.dhec.sc.gov/epht/

SC DHEC, 2013 South Carolina Youth Tobacco Survey: http://www.scdhec.gov/Health/TobaccoCessation/Under18TobaccoUse/SCYouthTobaccoUsageSurveys/

SC DHEC 2014 Body Mass Index (BMI) Report: http://www.scdhec.gov/library/CR-011307.pdf

SC Revenue and Fiscal Affairs Office, Health and Demographics Section: http://rfa.sc.gov/healthcare

Spartanburg Childhood Obesity Taskforce, Body Mass Index Report, 2013-2014: http://www.active-living.org/files/files/Spartanburg%20Final%20Report%204.14.14.pdf

LEADING INDICATOR III: Healthy Bodies

ALLIANCE FOR A HEALTHIER SOUTH CAROLINA GOAL: Prevent Chronic Disease through the Promotion of Better Nutrition and Physical Activity

According to SC DHEC, on an average day in South Carolina, there are 155 live births and 122 deaths. Of those deaths, 26 are attributed to heart disease, 7 to stroke, 6 to accidents, 3 to diabetes, 2 to suicide, and 1 to homicide.

The table below reports general health data for adults from the South Carolina Behavioral Risk Factor Surveillance System (SC BRFSS) for the combined 2013-2014 years. Spartanburg County adult residents rate their health generally somewhat poorer than the state average on both of the measures provided.

Would you say that in general your health is…. _____?

	Spartanburg County		**South Carolina**	
	%	95% Confidence Interval	%	95% Confidence Interval
Excellent	17.83	14.06 - 21.61	18.31	17.56 - 19.06
Very good	30.49	26.18 - 34.81	31.73	30.85 - 32.62
Good	30.31	26.08 - 34.53	30.23	29.36 - 31.09
Fair	13.70	10.57 - 16.83	13.62	12.98 - 14.26
Poor	7.67	5.40 - 9.94	6.11	5.71 - 6.51

How many days during the past 30 days was your physical health not good?

	Spartanburg County		**South Carolina**	
	%	95% Confidence Interval	%	95% Confidence Interval
None	63.97	59.48 - 68.46	64.04	63.12 - 64.96
1-2 days	8.92	6.20 - 11.65	9.30	8.72 - 9.88
3-7 days	8.46	6.00 - 10.93	10.53	9.91 - 11.14
8-29 days	10.22	7.24 - 13.21	8.62	8.09 - 9.15
30 days	8.42	6.14 - 10.70	7.51	7.06 - 7.96

Data Source: SC DHEC Public Health Statistics and Information Services

Chronic Conditions

Chronic diseases such as heart disease, cancer, diabetes, stroke, and arthritis are the leading causes of disability and death throughout the United States. It is estimated that chronic conditions consume 80% of healthcare resources, even though many are preventable and linked to environmental conditions, systems, and health behaviors.

Health risk behaviors account for 30% of health outcomes. Lack of exercise or physical activity, poor nutrition, tobacco use, and excessive alcohol use cause much of the illness, suffering, and early death related to chronic diseases and conditions.

The table below reports chronic condition data from the SC BRFSS for the combined 2013-2014 years. On 3 of these measures of chronic disease prevalence, Spartanburg County residents fare

better than or equal to the state average (highlighted in green). On the remaining 6 measures, Spartanburg County residents fare worse than the state average (highlighted in gold).

Have you ever been told that you had a heart attack, also called a myocardial infarction?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	4.14	2.60-5.67	4.70	4.36-5.04
No	95.86	94.33-97.40	95.30	94.96-95.64

Have you ever been told you had angina or coronary heart disease?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	5.16	3.56-6.75	4.84	4.50-5.19
No	94.84	93.25-96.44	95.16	94.81-95.50

Have you ever been told you have diabetes?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	13.25	10.48-16.02	12.26	11.72-12.79
Yes, but female told only during pregnancy	0.24	0.00-0.49	0.80	0.60-0.99
No	84.80	81.85-87.74	85.18	84.58-85.78
Pre-diabetes or borderline diabetes	1.72	0.69-2.76	1.77	1.54-2.00

Have you ever been told you had a stroke?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	5.51	3.52-7.50	3.73	3.41-4.05
No	94.49	92.50-96.48	96.27	95.95-96.59

Have you ever been told you had asthma?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	14.63	11.29-17.97	13.22	12.57-13.88
No	85.37	82.03-88.71	86.78	86.12-87.43

Have you ever been told you have COPD (chronic obstructive pulmonary disease), emphysema or chronic bronchitis?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	9.30	6.59-12.02	7.83	7.36-8.30
No	90.70	87.98-93.41	92.17	91.70-92.64

Have you ever been told you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	35.66	31.40-39.93	30.11	29.31-30.92
No	64.34	60.07-68.60	69.89	69.08-70.69

Have you ever been told you have skin cancer?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	6.77	4.98-8.55	7.18	6.80-7.57
No	93.23	91.45-95.02	92.82	92.43-93.20

Have you ever been told you have any other types of cancer?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	7.15	5.38-8.93	7.15	6.73-7.56
No	92.85	91.07-94.62	92.85	92.44-93.27

Data Source: SC DHEC Public Health Statistics and Information Services

Spartanburg County Emergency Department and inpatient data show significant numbers of visits and costs for heart disease, stroke, and diabetes.

Emergency Dept. Visits* for Select Conditions, Spartanburg County, 2014

Diseases of the Circulatory System (includes Heart Disease and Stroke)

Payor	Visits	Total Charge	Average Charge†
Commercial / HMO	818	$5,228,898	$4,790
Medicaid	264	$1,230,408	$3,693
Medicare	1,490	$11,218,861	$6,019
Self / Indigent	661	$3,438,832	$4,027
Total	**3,233**	**$21,116,999**	**$5,195**

Diabetes, With and Without Complications

Payor	Visits	Total Charge	Average Charge†
Commercial / HMO	182	$681,671	$3,745
Medicaid	125	$392,762	$3,142
Medicare	311	$1,218,222	$3,917
Self / Indigent	225	$676,329	$3,005
Total	**843**	**$2,968,982**	**$3,521**

Inpatient Hospitalization for Select Conditions, Spartanburg County, 2014

Diseases of the Circulatory System (includes heart disease and stroke)

Payor	Visits	Total Charge	Average Charge†
Commercial / HMO	944	$55,654,358	$51,223
Medicaid	257	$16,279,263	$48,550
Medicare	3,409	$169,055,320	$40,884
Self / Indigent	431	$21,908,405	$41,611
Total	**5,041**	**$262,897,346**	**$43,700**

Diabetes, With and Without Complications

Payor	Visits	Total Charge	Average Charge†
Commercial / HMO	165	$5,253,847	$31,841
Medicaid	87	$2,978,864	$34,239
Medicare	280	$11,430,632	$40,823
Self / Indigent	95	$2,665,724	$28,060
Total	**628**	**$22,349,962**	**$35,589**

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Does not include admissions to inpatient from the ED*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

Cancer

Cancer is a group of diseases in which abnormal cells in the body grow out of control. There are over 100 different types of cancer, all different diseases with different associated risk factors. Not all are well understood. Cancer is one of the most common chronic diseases in United States and although heart disease is the leading cause of death in the US, cancer currently surpasses heart disease as the leading cause of death in South Carolina. Cancer is the second leading cause of death in the Upstate region of South Carolina.

Approximately 50%-75% of cancer deaths are caused by 3 preventable lifestyle factors: tobacco use, poor diet, and lack of exercise. The SC Cancer Control Plan 2011-2015 calls for a multilevel approach to addressing cancer incidence and prevalence in South Carolina. Strategies fall into several domains: Health Advocacy and Policy, Health Disparities, Capacity-Building, Cancer Research, Primary Cancer Prevention, Patient Care, and Survivorship. The particular cancers of most concern in South Carolina and the strategies to address them are:

Women's Cancers

To reduce breast and cervical cancer morbidity and mortality through screening, early detection and state-of-the-art cancer diagnosis and treatment

Colorectal Cancer

To reduce colorectal cancer morbidity and mortality through screening, early detection, and state-of-the-art cancer diagnosis and treatment

Tobacco-Related Cancers (lung, esophageal, and head and neck)

To reduce tobacco-related cancer deaths through decreased tobacco use, decreased exposure to secondhand smoke, and state-of-the-art cancer diagnosis and treatment

Prostate Cancer

To promote informed decision-making about issues associated with prostate cancer and prostate cancer screenings

Skin Cancer

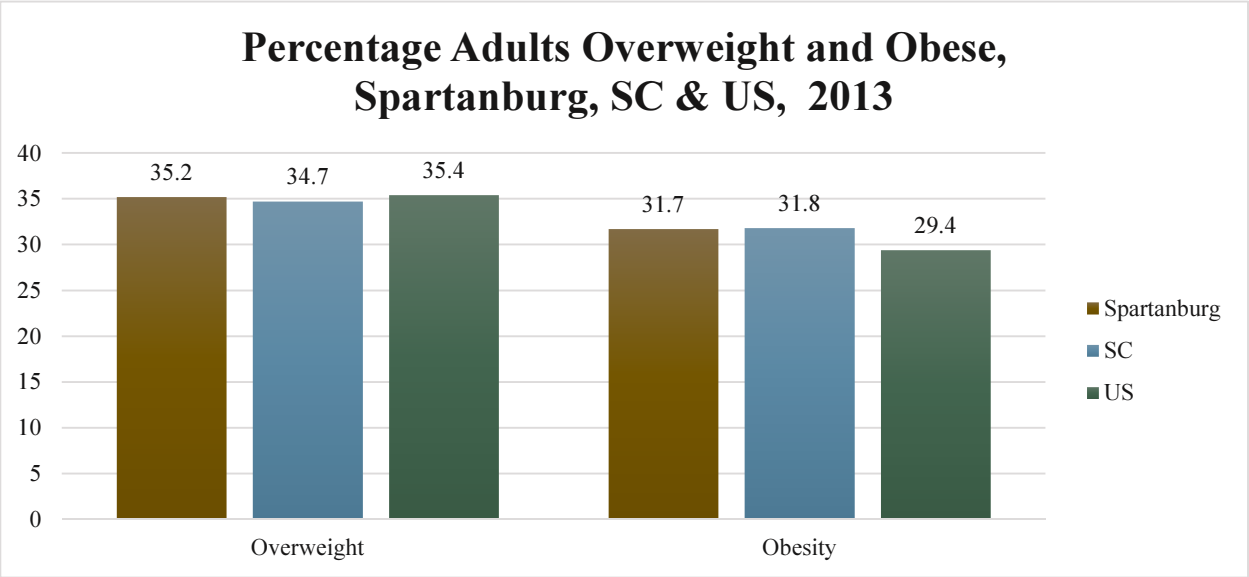
To reduce skin cancers through protection from ultraviolet radiation (sun, tanning beds)

Health disparities are any differences in the incidence, prevalence, mortality and burden of disease or poor health outcomes that exist among specific population groups which may result from differences in race/ethnicity, geography, gender, age, or socioeconomic status. Cancer disparities are significant in the US in terms of incidence, prevalence, and mortality. Specific population groups, especially racial and ethnic minorities, bear significantly greater cancer burden. Cancer disparities in South Carolina exceed national rates. A primary goal of the state Cancer Plan is to close the disparity gap. The South Carolina Cancer Disparities Community Network II (SCCDCN-II) is one of 23 Community Network Programs Centers (CNPCs) funded by the National Cancer Institute (NCI). The focus of the CCDCN-II is South Carolina's African-American population, a group in the region with a much higher than average cancer incidence and extraordinarily high mortality rate given its incidence rates. The mission of the SCCDCN-II is to contribute materially to understanding the underlying causes of cancer-related health disparities, discover and develop effective interventions to lower incidence, improve survival and reduce suffering, and to deliver these innovations to high-risk populations.

Obesity

Over the past 30 years, obesity rates have climbed alarmingly in the US. By 2012, over one-third of American adults were obese and the adult obesity rate had doubled since 1965. Current levels of obesity represent a large-scale loss in quality of life, deterioration in population health, and an enormous drain on financial resources. Currently, 2 of 3 South Carolina adults and 1 of 3 children are overweight or obese. Obesity has become a major contributor to the diseases that kill the most people in the state, make the most people sick, and cost the state the most money to treat.

As demonstrated in the graph below, 2013 prevalence of adult overweight and obesity in Spartanburg County is approximately the same as the state average. The US prevalence of obesity is lower than South Carolina and Spartanburg County prevalence. The obesity target for Healthy People 2020 is 30.5%.



Data Source: SC DHEC

Sufficient data are not available to trend obesity at the county level for Spartanburg County.

Treating obesity and obesity-related conditions costs billions of dollars a year. By one estimate, the US spent $190 billion on obesity-related health care expenses in 2005 - double previous estimates. Obesity accounts for approximately 21% of medical spending. There are various sources for estimating the cost of obesity, several of which have been used by SC DHEC to estimate costs in South Carolina. The estimated economic cost of obesity in South Carolina is $8.5 billion per year and growing. However, there are no cost data available at the county level. Harvard University's School of Public Health proposes that the best estimate of the additional medical costs of obesity are between $1,429 and $2,741 per person compared to individuals of normal weight. These are direct medical costs only. They do not include indirect costs associated with reduced productivity, taxes lost, and increased Social Security Disability Insurance benefits.

Given the Spartanburg County estimated obesity prevalence, it is estimated that the cost of additional medical spending in Spartanburg County due to obesity is between $97,637,854 and $187,281,566.

In response to the state's alarming obesity statistics, the South Carolina Obesity Action Plan was released in the fall of 2014. This plan provides evidence-based strategies and activities to reduce the burden of obesity in South Carolina over the next 5 years. The Plan focuses action across multiple settings over 5 years and is facilitated by SCale Down, the state initiative that implements the Action Plan and provides the unifying link for obesity efforts across the state. The South Carolina Institute of Medicine and Public Health (IMPH) facilitates the SCale Down initiative in partnership with the SC DHEC.

Physical Activity

People who are physically active are at a lower risk for overweight and obesity and for many other chronic conditions and illnesses. Physical activity strengthens bones, improves mood, increases life expectancy, and improves ability to accomplish activities of daily living.

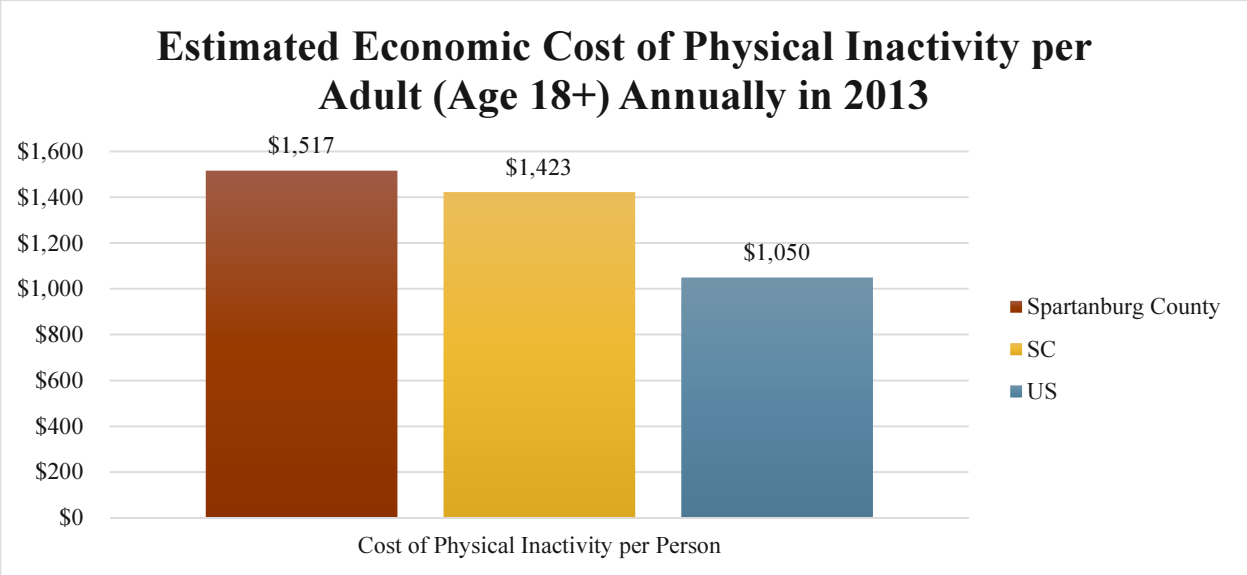
The table below reports exercise data from the SC BRFSS for the combined 2013-2014 years. Spartanburg County adults are slightly less likely to participate in physical activity and exercise than the state average.

During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening or walking for exercise?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	72.50	68.33 - 76.68	73.93	73.10 - 74.77
No	27.50	23.32 - 31.67	26.07	25.23 - 26.90

Data Source: SC DHEC Public Health Statistics and Information Services

Having safe, accessible parks and green spaces, playgrounds, walking trails, sidewalks, and bicycle lanes facilitates opportunities to be physically active. According to data collected by the Public Health Institute, 74.2% of Spartanburg County residents have access to exercise opportunities, higher than the state average of 71%. SC DHEC reports that, in 2013, 48.3% of adult residents of Spartanburg County met weekly physical activity recommendations (at least 150 minutes per week of moderate-intensity or 75 minutes per week of vigorous-intensity aerobic physical activity or a combination of moderate and vigorous-intensity physical activity). This was higher than the state average of 41.1% and lower than the national average of 49.9%. SC DHEC estimates that the economic cost of physical inactivity per adult in Spartanburg County is higher than the state average, as illustrated in the graph below.



Data Source: SC DHEC

SPOTLIGHT ON BEST PRACTICES: Trails

Active living is a priority in Spartanburg County as evidenced by increasing numbers of trails and increasing trail mileage. Organizations such as Partners for Active Living and Mary Black Foundation have led trail expansion efforts resulting in the current 74 miles of trails throughout the county and a proposed 20 additional miles over the next 5 years.

Currently, there are 11 miles of existing trails in urban areas of the county, 50 miles in Camp Croft State Park, 1.3 miles at USC Upstate, 7 miles in Glenn Springs, 3 miles in Peters Creek Heritage Preserve, and 1.5 miles in Pacolet River Heritage Preserve.

Healthy Food Access

Food choices are shaped by affordability, culture, and the foods that are available. People consume healthy food when it is easy to find and to buy. Many variables such as population density, car ownership rates, the ratio of fresh food outlets to fast food outlets, and the quality and location of supermarkets, grocery stores, and farmers' markets must be considered when determining if a community is underserved by healthy food retailers. There are a number of studies and online tools to help communities identify areas with limited access to supermarkets and sources of healthy food. The Robert Wood Johnson Foundation supports a Healthy Food Access Portal that supplies comprehensive information on local food environments. The Portal relies heavily on data from Reinvestment Fund's Limited Supermarket Access (LSA) Study and the US Department of Agriculture (USDA) Food Access Research Atlas.

According to the Healthy Food Access Portal, there were 37 full service supermarkets located in Spartanburg County, 62 limited service stores, and 4 farmers' markets in 2013. Supplemental Nutrition Assistance Program (SNAP) benefits are accepted at 349 participating stores, farmers' markets, social service agencies or other non-retail providers in Spartanburg County. According to the USDA data within the portal, 22 of 69 census tracts in Spartanburg County are low-income, low-access tracts. There are 2 LSA areas within Spartanburg County with 38,903 people living in them. Leakage, the amount that residents spend at stores located outside of the LSA, is estimated to be $45,663,000.

Food Environment, Spartanburg County, 2013

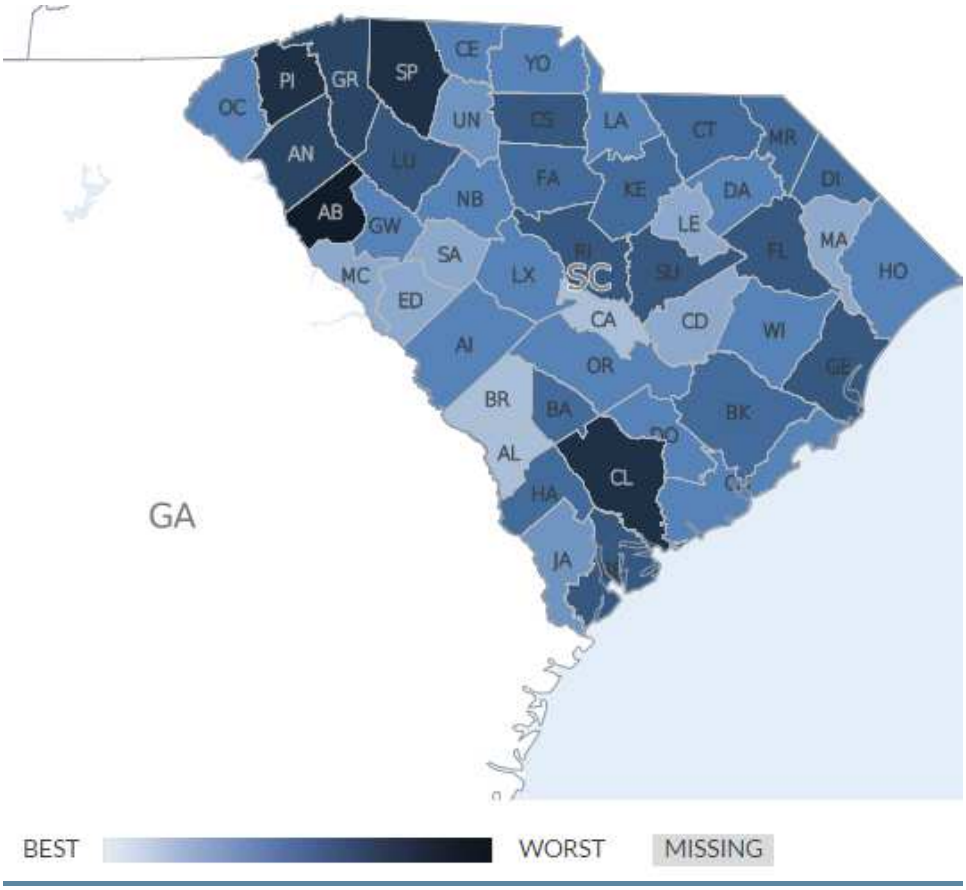
Food Retailers	
Full Service Supermarkets	37
Limited Service Stores	62
SNAP Retailers	349
Farmers' Markets	4
Fast Food and Takeout Restaurants	215
Limited Supermarket Access (LSA)	
Population within LSA	39,903
Total Grocery Leakage	$45,663,000
Total Grocery Store Demand (Sq. Ft.)	85,730
Limited Service Stores within LSA	9

Data Source: Healthy Food Access Portal

Comprehensive food environment data can provide guidance on whether a new supermarket, an expansion of an existing store, or a farmers' market is the appropriate strategy to pursue.

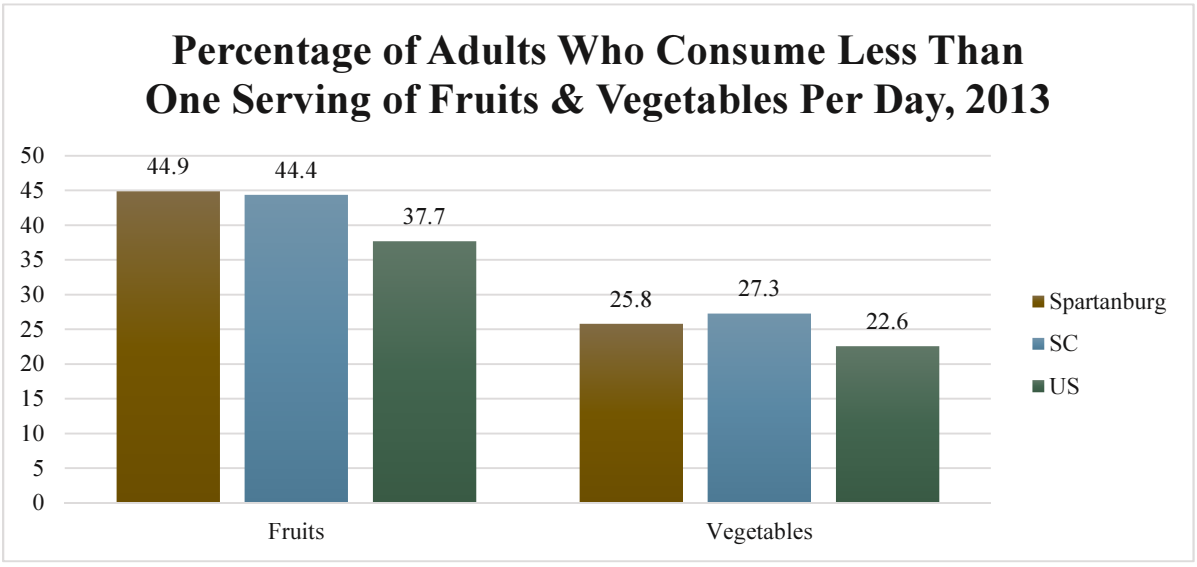
According to the County Health Rankings, 8% of low income residents in South Carolina do not live near a grocery store - in Spartanburg County, 13%; in Greenville County, 10%; in Richland County 9%; in Charleston County, 6%.

Availability of Grocery Stores to Low Income Residents, South Carolina



Source: County Health Rankings

The graphic below reports data on daily fruit and vegetable consumption. Almost half of Spartanburg County adults fail to consume at least one serving of fruit per day and 26% fail to consume at least one serving of vegetables per day.



Data Source: SC DHEC

SPOTLIGHT ON BEST PRACTICES: Spartanburg's Way to Wellville and Active Living / Heathy Eating

One of the original five Way to Wellville goals for Spartanburg is to reduce obesity. The committee working on this goal, in collaboration with Partners for Active Living, is focusing on making sure that every resident of the City of Spartanburg lives within a half mile of a fresh food outlet and within a half mile of a safe place to play / exercise.

Access to Care

One of the core Alliance for a Healthier South Carolina Goals is *to improve access to primary care that allows patients to have better quality of life*. Access to health care is a function of several factors, the primary ones being the ability to pay for care and the availability of care. The ability to pay for care is largely a function of income and insurance coverage status. Availability of care is lower in "medically underserved" areas and in areas where there is a shortage of health professionals, such as rural areas.

Uninsured Rates

Rates of health insurance coverage in a community speak not only to the health status of that community, but also to the economic status of the community. High quality and well-paying jobs typically include health insurance coverage. Where relatively few of those jobs exist, uninsured rates are high. Moreover, it is difficult to recruit high quality employers to a community with high uninsured rates because this implies that the workforce is unskilled and that quality of life in the community is low.

Recently released SC BRFSS data show that in 2014, 18.12% of adults in South Carolina could not see a doctor due to cost. This is down from 20.50% in 2012, and exceeds the 18.45% 2020 Goal of the Alliance for a Healthier South Carolina. The Alliance attributes the decline to at least 3 initiatives recently implemented in the state:

- A decrease in the proportion of uninsured due to Health Insurance Marketplace subsidies
- The efforts by SC Department of Health and Human Services and community organizations to increase Medicaid enrollment for those who were eligible but not enrolled
- The roll-out of the Healthy Outcomes Plan (HOP) that provided access to care coordination services to 12,000+ chronically ill, uninsured residents of the state

However, as with most other health indicators, disparities are stark: 40.6% of SC residents who make less than $15,000 a year and 30.4% of Hispanics neglected care due to cost in 2014.

The table below reports on health care coverage data from the SC BRFSS for the combined 2013-2014 years. Spartanburg residents generally have a slightly lower rate of health care coverage and higher Medicare and Medicaid coverage sources compared to state averages. Spartanburg County residents indicated, at a higher rate than the state average, that they have one or more personal doctors or health care providers; however, they were equally as likely not to have seen a doctor when they needed to because of cost.

Do you have any kind of health care coverage?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	80.69	76.56 - 84.81	81.86	81.06 - 82.65
No	19.31	15.19 - 23.44	18.14	17.35 - 18.94

What is the primary source of your health care coverage (2014 only)?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Employer/Union Plan	48.45	41.82 - 55.08	50.07	48.68 - 51.46
Individually Purchased Plan	7.19	4.05 - 10.32	9.41	8.60 - 10.23
Medicare	29.33	23.93 34.73	23.69	22.68 - 24.70
Medicaid	9.52	5.03 - 14.01	8.55	7.66 - 9.44
Military	3.33	1.17 - 5.49	6.18	5.53 - 6.84
Alaska Native/ Indian/ Tribal Health Services	0.31	0.00 - 0.91	0.06	0.00 - 0.13
Other	1.25	0.31 - 2.19	1.84	1.45 - 2.22
No coverage	0.63	0.00 - 1.85	0.19	0.05 - 0.34

Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	18.65	14.81 - 22.48	18.62	17.85 - 19.39
No	81.35	77.52 - 85.19	81.38	80.61 - 82.15

Do you have one person you think of as your personal doctor or health care provider?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Only one	73.36	68.91 - 77.82	70.40	69.50 - 71.31
More than one	6.98	4.52 - 9.44	5.97	5.53 - 6.41
None	19.66	15.54 - 23.78	23.63	22.76 - 24.49

About how long has it been since you last visited a doctor for a routine checkup?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Within past 1 year	66.50	61.95 - 71.06	67.06	66.13 - 67.99
Within past 2 years	12.56	9.32 - 15.80	12.91	12.25 - 13.58
Within past 5 years	6.66	4.18 - 9.15	9.12	8.51 - 9.74
5 or more years ago	13.06	9.63 - 16.49	9.72	9.12 - 10.32
Never	1.21	0.00 - 2.43	1.19	0.95 - 1.42

Source: SC DHEC Public Health Statistics and Information Services

According to US Census data, there were approximately 39,000 uninsured people living in Spartanburg County in 2014. It is important to consider uninsured rates for age 18-64, the primary working age, exempt from Medicaid and Medicare by entitlement. Uninsured rates are historically much higher for this group.

Uninsured Rates by Selected Demographics, Spartanburg County, 2014

Age	Under 18	5.6%
	18-64	19.6%
	65+	0.7%
Race / Ethnicity	White	12.1%
	Black/African-American	17.3%
	Hispanic (Any Race)	29.3%
Education	Less than High School	25.4%
	High School Only	17.0%
	Some College / Associate's Degree	13.4%
	Bachelor's Degree and Above	5.2%
Household Income	Less than $25,000	23.1%
	$25,000 - $49,999	14.0%
	$50,000 - $74,999	10.1%
	$75,000 - $99,000	11.0%
	$100,000 and Above	4.7%
Work Status	In Labor Force, Employed	16.7%
	In Labor Force, Unemployed	48.4%
	Worked Full Time, Year Round	12.9%

Data Source: US Census

The latest Census data show that the 5-year 2010-2014 average uninsured rates both for all residents and for working age residents were highest in Spartanburg County compared to peer counties, the state average, and the national average. In addition to single year averages, it is instructive to examine a combined year average to control for outlying economic fluctuations and to obtain a larger sample size. It is clear that progress is being made on this measure since the 2014 single year measure falls below the state average.

Percentage Uninsured, Spartanburg County and Peer Counties

	2010		**2012**		**2014**		**2010-2014 Average**	
	All ages	18-64	All ages	18-64	All ages	18-64	All ages	18-64
Spartanburg	19.8	26.3	18.2	24.8	13.5	19.6	16.8	23.3
Charleston	17.2	23.2	17.6	23.1	12.8	18.2	15.7	21.4
Greenville	17.4	23.7	16.4	23.1	13.0	18.1	15.6	21.8
Richland	14.0	19.2	13.7	18.5	10.5	14.8	13.1	18.0
SC	17.5	24.3	16.8	23.8	13.6	19.9	15.9	22.7
US	15.5	21.4	14.8	20.6	11.7	16.3	14.2	19.8

Data Source: US Census

Low Income Uninsured

Medicaid, in addition to being the single largest health insurer for children in SC, also covers low income parents, low income elderly, and persons with disabilities – if they qualify. The Affordable Care Act (ACA) gives states the option to expand Medicaid eligibility for non-elderly adults earning up to 138% of the Federal Poverty Level (FPL). However, South Carolina chose not to expand Medicaid. The ACA also provides marketplace insurance subsidies for those with incomes of 100%-400% of FPL, but not below 100% of FPL. As a result, there is a remaining cohort of uninsured people because they do not qualify for Medicaid and do not make enough money to be eligible for marketplace insurance subsidies.

The table below reports numbers of Spartanburg County residents living below 50% ("severe poverty") and 100% of FPL by age group and insurance coverage status. A single year estimate is provided (2014), but the margin of error for this measure is quite wide. Therefore, a combined year average is also provided. Regardless of the estimate, safety net providers still have to serve the significant number of low income uninsured residents of Spartanburg County.

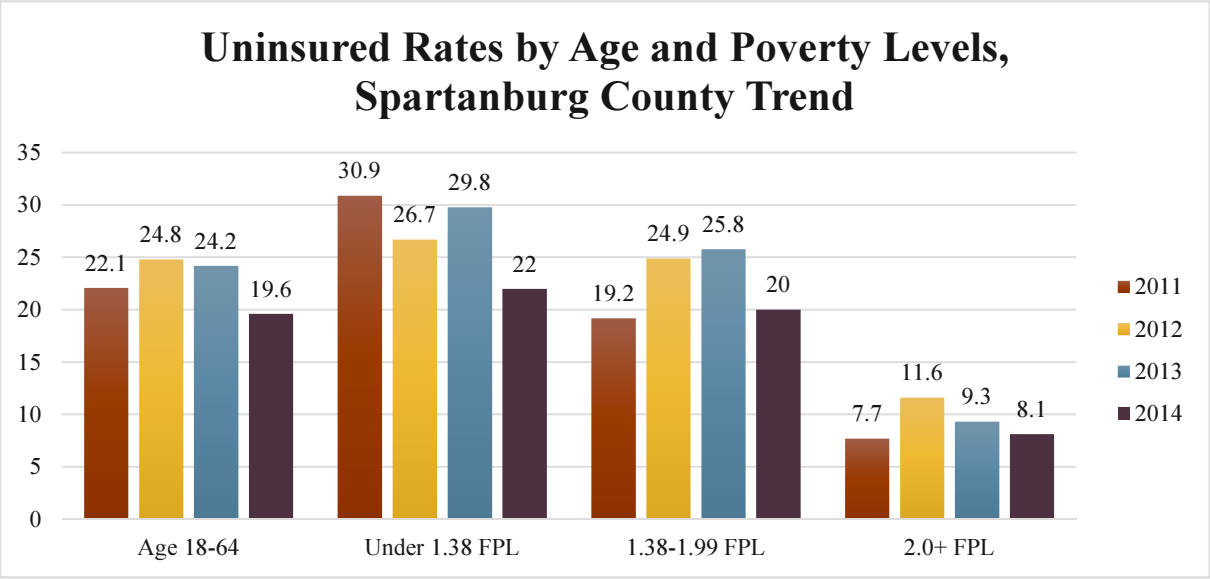
Insurance Coverage by Age Group for Poverty Levels below 100% FPL, Spartanburg County

	2014	2011-2013 Average
Severe Poverty (Under 0.50 of FPL)	**25,130**	**20,830**
With Health Insurance Coverage		
Under Age 18	9,871	6,340
Age 18-64	6,319	6,428
Age 65+	1,188	1,116
No Health Insurance Coverage		
Under Age 18	628	619
Age 18-64	7,074	6,186
Age 65+	50	41
Poverty (0.50 to .99 of FPL)	**25,573**	**33,633**
With Health Insurance Coverage		
Under Age 18	8,764	10,649
18-64	9,272	9,463
65+	2,705	4,007
No Health Insurance Coverage		
Under Age 18	40	1,830
18-64	4,792	7,684
65+	0	0
Total No Health Insurance Below 100% of FPL	**12,584**	**16,360**

Data Source: US Census

Most Census tables now report insurance to poverty ratios at the 1.38 level since the ACA allows for Medicaid expansion up to 138% of FPL. The graphic below illustrates annual trends in poverty for both working age residents and residents below 138% of FPL (federal eligibility for Medicaid) and 130% - 200% of FPL (eligible for marketplace insurance subsidies) and those above 200% of

FPL (some of whom are eligible for subsidies). Of these cohorts, uninsured rates remain highest for those under 138% of FPL, although rates are decreasing over time.



Data Source: US Census

Uninsured rates have improved from 2012 to 2014 for low income residents of all peer counties, the state and the nation. Further, rates below 1.34 of FPL and at 1.38-1.99 of FPL improved from 2012 to 2014.

Uninsured Low Income, Peer Counties Trend

	2012			2014			2010-2014 Average		
	<1.38 FPL	1.38-1.99 FPL	2.00+ FPL	<1.38 FPL	1.38-1.99 FPL	2.00+ FPL	<1.38 FPL	1.38-1.99 FPL	2.00+ FPL
Spartanburg	26.7	24.9	11.6	22.0	20.0	8.1	28.6	24.3	9.7
Charleston	29.6	28.7	11.3	24.3	19.9	7.9	27.0	26.9	9.9
Greenville	33.7	25.3	8.4	27.7	16.5	7.0	30.9	24.3	8.8
Richland	24.6	23.1	7.9	21.7	15.8	5.7	24.3	21.3	7.3
SC	28.7	24.0	9.9	23.7	19.1	8.0	27.7	22.3	9.4
US	26.3	23.2	9.2	20.9	18.5	7.4	25.6	22.3	8.9

Data Source: US Census
Note: 2010 data are not available at these levels of poverty.

SPOTLIGHT ON BEST PRACTICES: AccessHealth Spartanburg

AccessHealth Spartanburg (AHS) is a nonprofit founded in 2010 and it mission is to spark sustainable health system change that results in better health outcomes and 100% access to effective, efficient, safe, timely, patient-centered, and equitable healthcare throughout the region. AccessHealth provides a suite of services that help clients navigate through systems that address the social barriers they may face, including screening for Medicaid, Supplemental Nutrition Assistance Program, Health Insurance Exchange, and much more.

In 2014, AccessHealth scheduled nearly 9,000 appointments for 1,859 patients. More than 1,000 individuals were connected to prescription assistance and 10% of patients were able to obtain coverage and "graduate" from the AHS program. Outcome data continue to reveal a decrease in emergency room use and avoidable inpatient admissions for program participants. AccessHealth participants who used hospital services had less costly visits due to shorter inpatient stays and fewer admissions. In fact, combined Emergency Department and inpatient costs were reduced by 42.42%, while admissions were reduced by 31.46% in 2014. Diagnosis-specific data showed additional impact in 2014:

- Patients with Congestive Heart Failure had a 51.22% reduction in admissions and a 55.66% reduction in costs.
- Asthma patients had a 68% reduction in admissions and a 72.58% reduction in costs.
- Diabetes patients had a 36.05% reduction in admissions and a 30.96% reduction in costs.

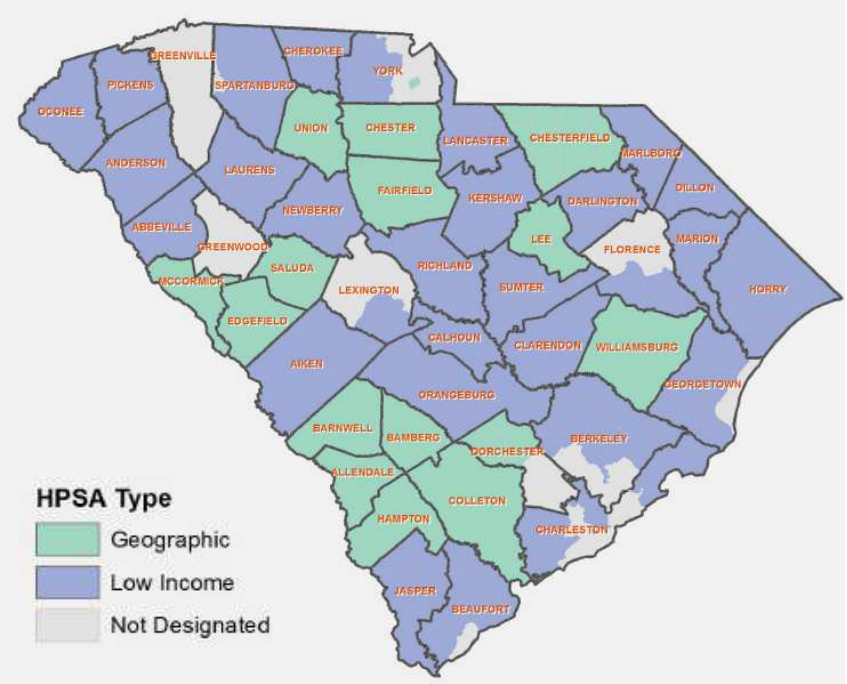
Medically Underserved and Health Professional Shortage Areas

For optimal public health, sufficient numbers of health professionals must be available to the population and distributed in a way that meets medical needs for ongoing care. The Primary Care Office of SC DHEC conducts ongoing evaluation of the state's communities to designate Health Professional Shortage Areas (HPSA) or Medically Underserved Areas (MUA). Although eligibility for the two designations is established using different criteria and data, designation as either one is used by more than 30 federal and state programs to establish eligibility for health services resources. It should be noted that the Primary Care Office does not recommend using HPSA or MUA designations as a measure of access to healthcare since designation may not reflect recent changes in a given health care system.

Most South Carolina counties have a shortage of health professionals. HPSAs are designated in terms of shortage for the total population, shortage for low income residents, or shortage of facilities. MUA designations are available for primary care only.

The first "sub-goal" under the Alliance for a Healthier South Carolina's Access to Care goal is to improve access to primary care (with specific focus on reducing cost and geographic barriers). Primary care can be provided by doctors, physician assistants, or nurse practitioners as the first point of contact for health problems – diagnosed and undiagnosed. Primary care providers treat the patient and coordinate other care, ensuring that patients get the right care, in the right setting, by the most appropriate practitioner, and in a manner consistent with the patient's desires and values. Healthcare system data show that areas with higher concentrations of primary care clinicians have lower cost, higher quality healthcare. As of December 2015, almost all of Spartanburg County was designated as a Primary Care HPSA for low income residents (no change since the 2013 issue of this report).

Primary Care Health Provider Shortage Area by Type as of December 2015

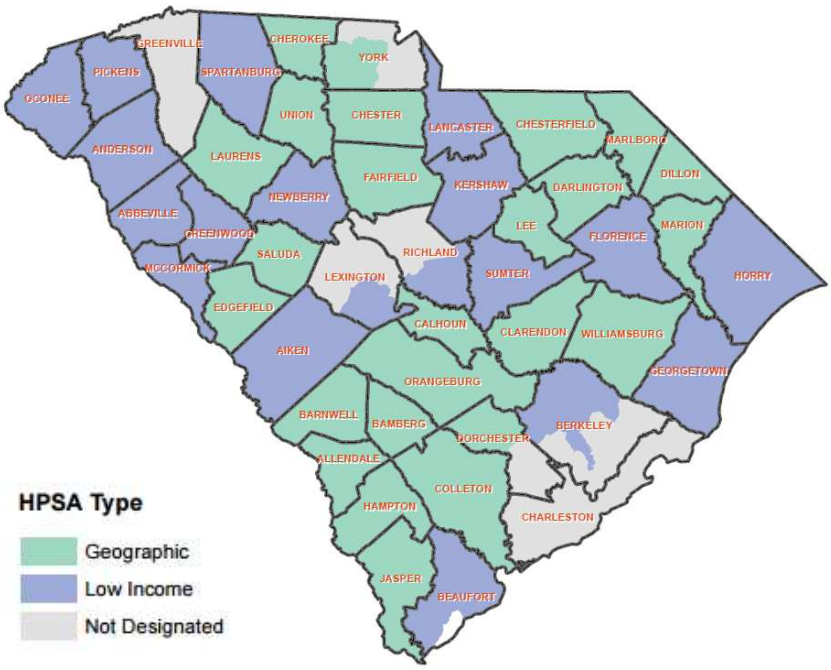


Source: SC DHEC

As of November 2013, all of Spartanburg County continued to be designated a Dental HPSA for low income residents (no change since the 2013 issue of this report). Local subject matter experts have identified the fragmentation and lack of dental care for low income, uninsured residents as one of the critical public health issues in Spartanburg County. About 15% of the US population lives in dental health professional shortage areas according to the Kaiser Family Foundation.

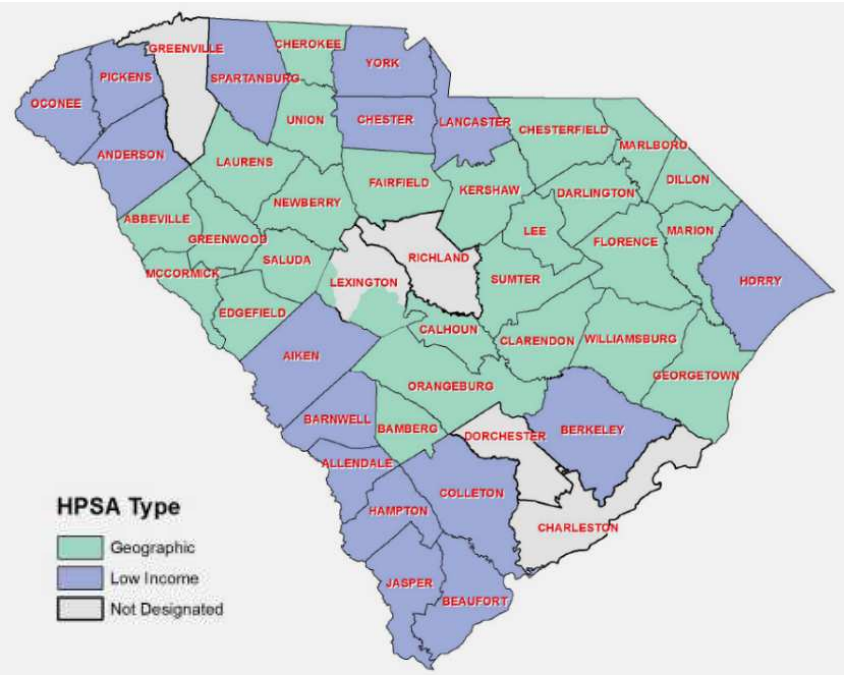
Dental Health Provider Shortage Area by Type as of November 2013

Source: SC DHEC



As of December 2015, all of Spartanburg County was designated a Mental Health HPSA for low income residents (no change since the 2013 issue of this report). Local subject matter experts have identified lack of sufficient mental health care as being one of the critical public health issues in Spartanburg County.

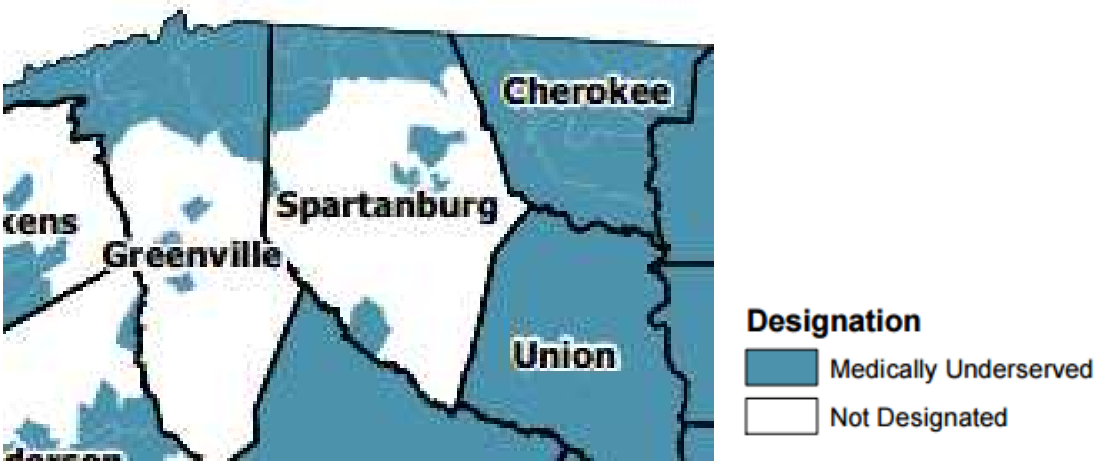
Mental Health Professional Shortage Area by Type as of December 2015



Source: SC DHEC

As of April 2014, pockets of Spartanburg County, especially in the northern portion, were designated as medically underserved (no change since the 2013 issue of this report). Although the same area can be designated as a HPSA and a MUA, an area cannot be designated as both a geographic and low income population HPSA.

Medically Underserved Areas in the Upstate, designated as of April 2014



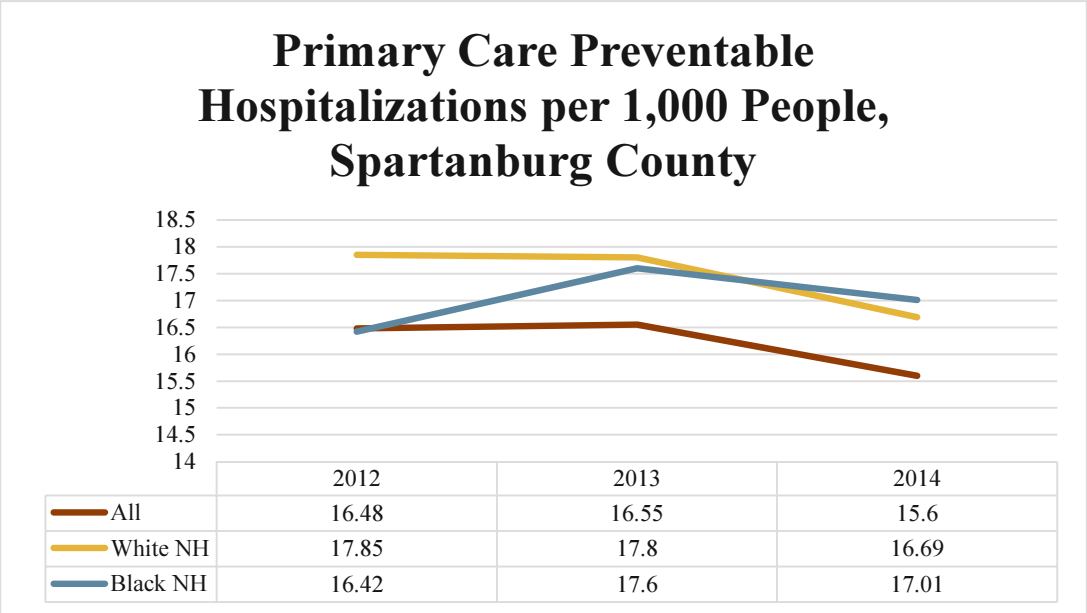
Source: SC DHEC

Emergency Department and Inpatient Utilization

According to the Alliance for a Healthier South Carolina, the latest Kaiser Family Foundation estimates show that there were 604,000 uninsured residents in South Carolina at the beginning of 2015. About half of them are already eligible for marketplace subsidies or for SC Medicaid. In addition to this, almost 127,000 of them were offered employment-sponsored insurance but declined or earn more than 400% FPL and chose not to buy insurance. This equates to approximately 425,000 uninsured who could potentially be covered.

Uninsured people frequently rely on safety net providers such as free clinics to provide their healthcare. Many of the uninsured use the Emergency Department as their default provider of medical services. Often, uninsured people do not seek medical care at all and end up in the hospital for conditions that could have been prevented if they had access to primary care. The rate of primary care preventable hospitalizations in South Carolina is 13.41 per 1,000 people. The Alliance for a Healthier South Carolina 2020 Goal is 13.15 per 1,000 people.

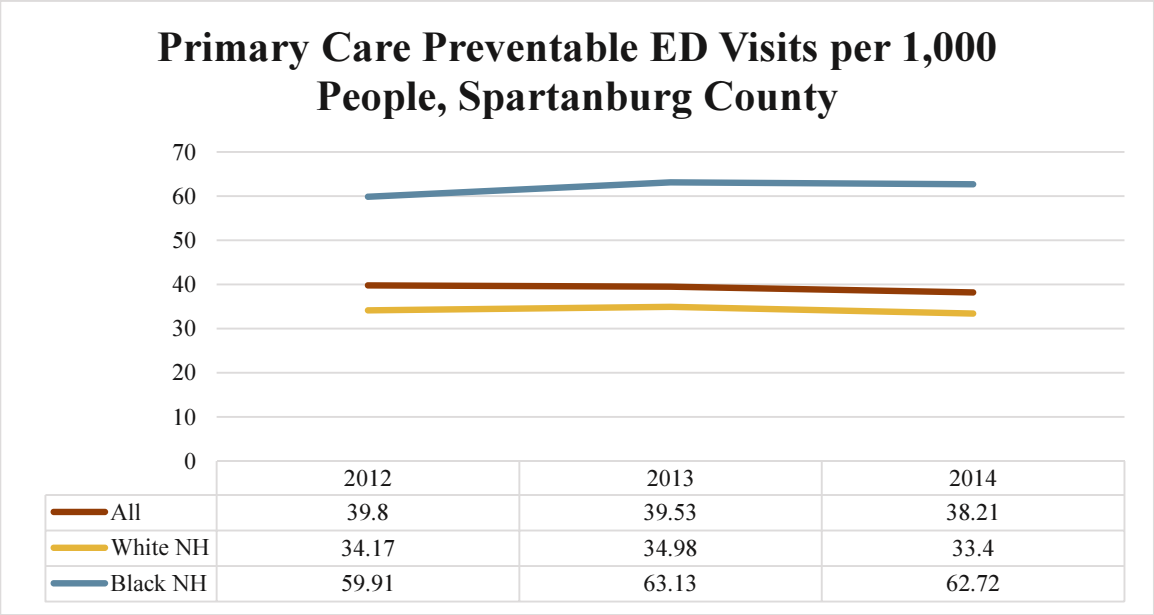
The graph below demonstrates that primary care preventable hospitalizations are decreasing overall in Spartanburg County, although the rate spiked for black/African-American non-Hispanic residents between 2012 and 2013. White non-Hispanic residents had a higher rate than black/African-American non-Hispanics, but this reversed between 2013 and 2014. Note that "All" has a lower rate in 2013 and 2014 than white non-Hispanic and black/African-American non-Hispanic because "All" includes other races and Hispanics who comprise 9% of the population but have only 2% of hospitalizations. The hospitalization rate for Hispanics and other non-Hispanics has been between declining since 2012 from 6.2 to 3.9 per 1,000 population in 2014.



	2012	2013	2014
All	16.48	16.55	15.6
White NH	17.85	17.8	16.69
Black NH	16.42	17.6	17.01

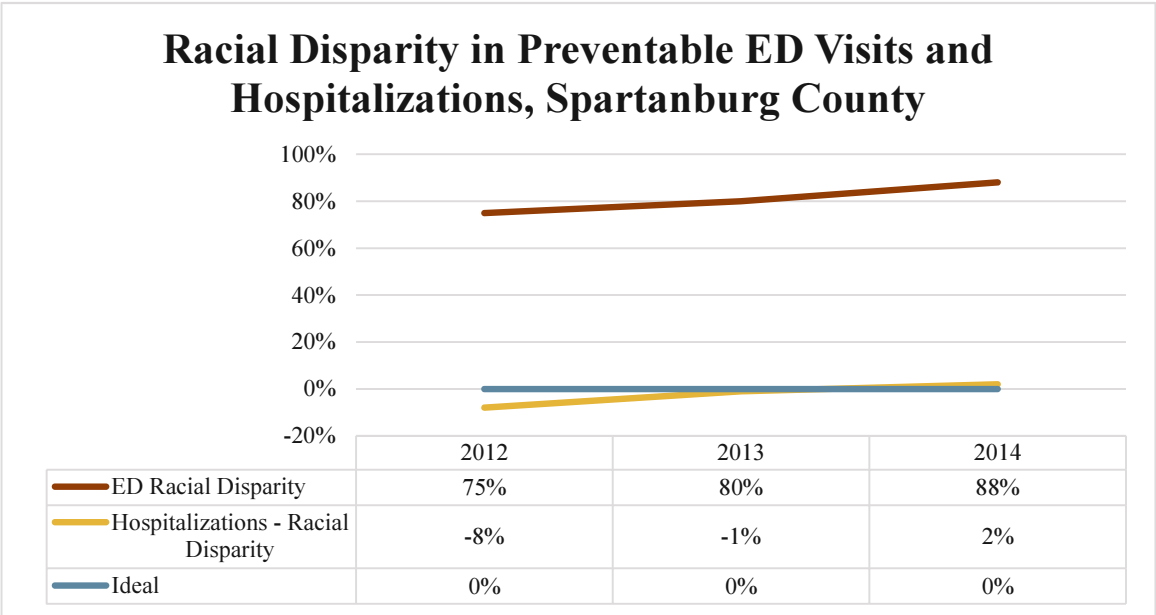
Data Source: Alliance for a Healthier South Carolina

The rate of primary care preventable ED visits in South Carolina is 37.73 per 1,000 people. There is not a specific Alliance for a Healthier South Carolina goal for reduction of these ED visits. Instead, the goal is on reduction of the racial disparities in ED visits. The graph below demonstrates that there are significantly different ED usage rates in Spartanburg County for black/African-American non-Hispanic residents and white non-Hispanic residents for primary care preventable / non-emergent conditions.



Data Source: Alliance for a Healthier South Carolina

The racial disparity in primary care preventable ED visits in SC is 104%. That is, black/African-Americans are more than twice as likely to seek treatment in the ED for non-emergent or primary care preventable conditions. The Alliance for a Healthier South Carolina 2020 Goal in Racial Disparity in Preventable ED Visits for SC is 85%. Of course, optimal would be 0%. The graph below demonstrates that, in 2014 in Spartanburg County, blacks/African-Americans used the ED 88% more frequently than whites for non-emergent or primary-care preventable conditions. In 2012, whites in Spartanburg County were hospitalized at an 8% higher rate than blacks/African-Americans for non-emergent or primary-care preventable conditions. In 2014, blacks/African-Americans exceed whites by 2% on this measure.



Source: Alliance for a Healthier South Carolina

Ambulatory Care Sensitive (ACS) conditions are health conditions that are potentially preventable or that can be treated outside of a hospital. For example, hypertension is a condition that, with proper medication and management of care, should not require hospitalization or a visit to the ED. Over the last 3 years, the number and percentage of ACS conditions in the ED has decreased for Spartanburg County residents. Although charges for ACS conditions have actually increased, they have decreased proportionally to total charges in the ED.

Emergency Department Discharges for Residents of Spartanburg County, Ambulatory Care Sensitive Conditions, 2011-2014

	2011	2012	2013	2014
Total ED Discharges	**130,294**	**134,250**	**134,725**	**137,754**
Ambulatory Care Sensitive	22,993	24,064	22,764	21,669
% Ambulatory Care Sensitive	17.65%	17.92%	16.90%	15.73%
Total ED Charges	**$223,961,467**	**$282,178,466**	**$341,087,486**	**$398,181,432**
Ambulatory Care Sensitive	$26,972,765	$34,335,785	$39,812,565	$43,706,634
% Ambulatory Care Sensitive	12.04%	12.17%	11.67%	10.98%

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section

The following table shows the top five diagnoses for self-pay / indigent patients in Spartanburg County, for the ED and for inpatient hospitalization, from July 2014 to June 2015. All 5 top ED diagnoses are typically ambulatory care sensitive, but account for significant numbers of visits and significant charges.

ED & Inpatient Data, Self-Pay/Indigent Patients, Spartanburg County, July 2014-June 2015

	Diagnosis	Average Age	Visits	Total Charges	Average Charge†
EMERGENCY DEPT.	Acute Bronchitis	35	1,030	$1,623,445	$1,576
	Urinary Tract Infection	33	984	$2,976,881	$3,025
	Acute Upper Respiratory Infection	25	754	$790,416	$1,048
	Headache	35	742	$2,223,136	$2,996
	Abdominal Pain, Unspecific	33	671	$2,911,411	$4,339
	Total All Self-Pay / Indigent	**34**	**38,253**	**$102,034,553**	**$2,667**
	Diagnosis	**Average Age**	**Visits**	**Total Charges**	**Average Charge†**
INPATIENT	Acute Pancreatitis	43	84	$2,747,393	$32,707
	Diabetes Mellitus Ketoacidosis	35	44	$977,845	$22,224
	Cellulitis of Leg	46	44	$1,227,031	$27,887
	Subindocardial Infarct, Initial	53	42	$2,551,391	$60,747
	Cerebral Artery Occlusion with Infarct	59	37	$1,455,364	$39,334
	Total All Self-Pay / Indigent	**45**	**2,269**	**$99,452,685**	**$43,831**

Data Source: SC Revenue and Fiscal Affairs Office

†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

Between July 2014 and June 2015 there were 17,691 visits to the ED by "high utilizers" in Spartanburg County. High utilizers are individuals who visit the ED 5 times or more over a 12-month period. The table below demonstrates that high utilizers are typically older (average age 60.6), white (74%), and female (62%). The most common payor source is Medicare (64% of visits).

High ED Utilizers by Patient Demographic, Spartanburg County, July 2014 - June 2015

		# Visits	% Visits
Age	0-17	614	3.47
	18-34	1,552	8.77
	35-64	6,364	35.97
	65-84	7,858	44.42
	85+	1,303	7.37
Race	White	13,130	74.22
	African-American	4,085	23.09
	Other	476	2.69
Sex	Female	10,947	61.88
	Male	6,744	38.12
Payor	Private Insurance	3,125	17.66
	Medicaid	1,794	10.14
	Medicare	11,376	64.30
	Self-Pay / Indigent	1,396	7.89

Data Source: SC Revenue and Fiscal Affairs Office

High utilizers are distributed across the county with the most represented zip code being 29301 (9.5% of high utilizers). The table below shows the most common diagnoses for high ED utilizers.

25 Top Diagnoses, ED Visits by High Utilizers, Spartanburg County, July 2014 - June 2015

Diagnosis	# Visits	Total Charges
1. Encounter for Other and Unspecified Procedures and Aftercare	10,344	$82,346,755
2. Respiratory Symptoms / Other Chest Symptoms	5,892	$19,088,741
3. General Symptoms	5,539	$9,877,467
4. Malignant Neoplasms of Female Breast	5,506	$26,350,328
5. Diabetes Mellitus	4,565	$3,266,658
6. Other Abdomen / Pelvis Symptoms	4,427	$10,723,311
7. Essential Hypertension	3,383	$2,108,382
8. Other Urinary Tract Disorder	3,159	$3,778,943
9. Chronic Ulcer of Skin	3,094	$4,061,535
10. Screening - Malignant Neoplasm	3,036	$2,140,303
11. Joint Disorder Not Elsewhere Classified	2,973	$3,349,873
12. Symptoms Involving Head / Neck	2,835	$4,315,208
13. Malignant Neoplasm – Trachea / Lung	2,699	$12,279,818
14. Back Disorder Not Elsewhere Classified	2,655	$4,172,903
15. GI System Symptoms	2,417	$4,211,382
16. Heart Failure	2,347	$4,410,585
17. Anemia Not Elsewhere Classified	2,330	$4,119,325

18. Malignant Neoplasm – Prostate	2,281	$16,640,361
19. Disorders of Lipoid Metabolism	2,186	$630,272
20. Other Soft Tissue Disorders	1,981	$2,819,757
21. Iron Deficiency Anemias	1,579	$2,487,559
22. Nervous / Musculoskeletal System Symptoms	1,526	$3,240,059
23. Fluid / Electrolyte Disorder	1,410	$1,966,979
24. Cardiac Dysrhythmias	1,346	$8,079,670
25. Disorders of Muscle / Ligament / Fascia	1,242	$2,291,951

Data Source: SC Revenue and Fiscal Affairs Office

Adult Tobacco Use

Smoking is the leading preventable cause of death and disease in South Carolina. It causes heart disease, lung cancer, and other respiratory illnesses and complicates chronic diseases.

The table below reports on adult tobacco use data from the SC BRFSS for the combined 2013-2014 years. Compared to the state average, Spartanburg County adults have a higher smoking rate and a higher rate of smokeless tobacco product usage. Spartanburg County residents also have a lower rate of having stopped smoking in the last 12 months.

Do you now smoke cigarettes every day, some days, or not at all?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Every day	35.01	28.28 - 41.73	32.17	30.83- 33.52
Some days	13.24	8.72 - 17.77	14.10	13.09-15.11
Not at all	51.75	45.15 - 58.36	53.73	52.36-55.10

During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

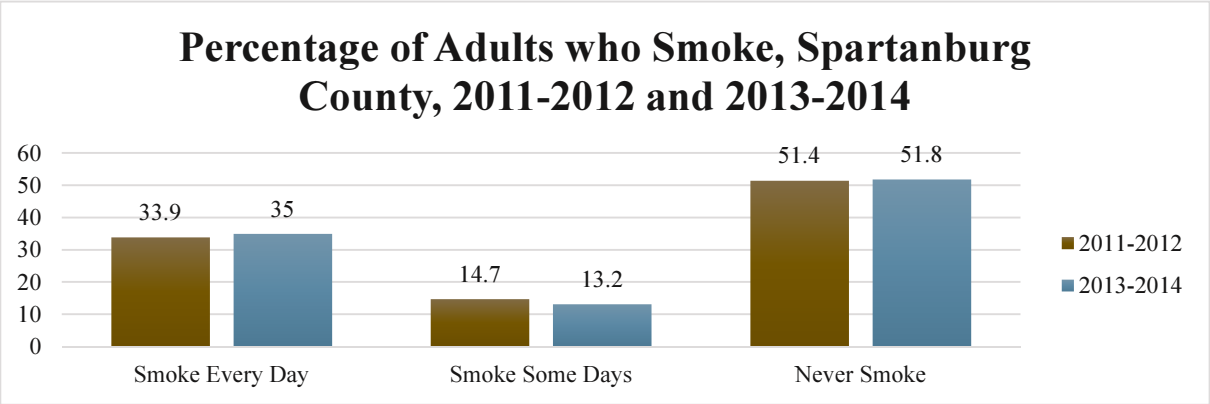
	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	59.98	49.50 - 70.47	63.00	60.87 - 65.13
No	40.02	29.53 - 50.50	37.00	34.87 - 39.13

Do you currently use chewing tobacco, snuff, or snus every day, some days, or not at all?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Every day	4.30	2.27 - 6.33	2.13	1.82 - 2.43
Some days	1.51	0.35 - 2.66	1.92	1.64 - 2.19
Not at all	94.19	91.89 - 96.50	95.95	95.55 - 96.36

Source: SC DHEC Public Health Statistics and Information Services

BRFSS data from 2011-2012 and 2013-2014 show that adult non-smoking rates in Spartanburg County have remained consistent for this period; however, there is a slightly higher rate of people who smoke every day.

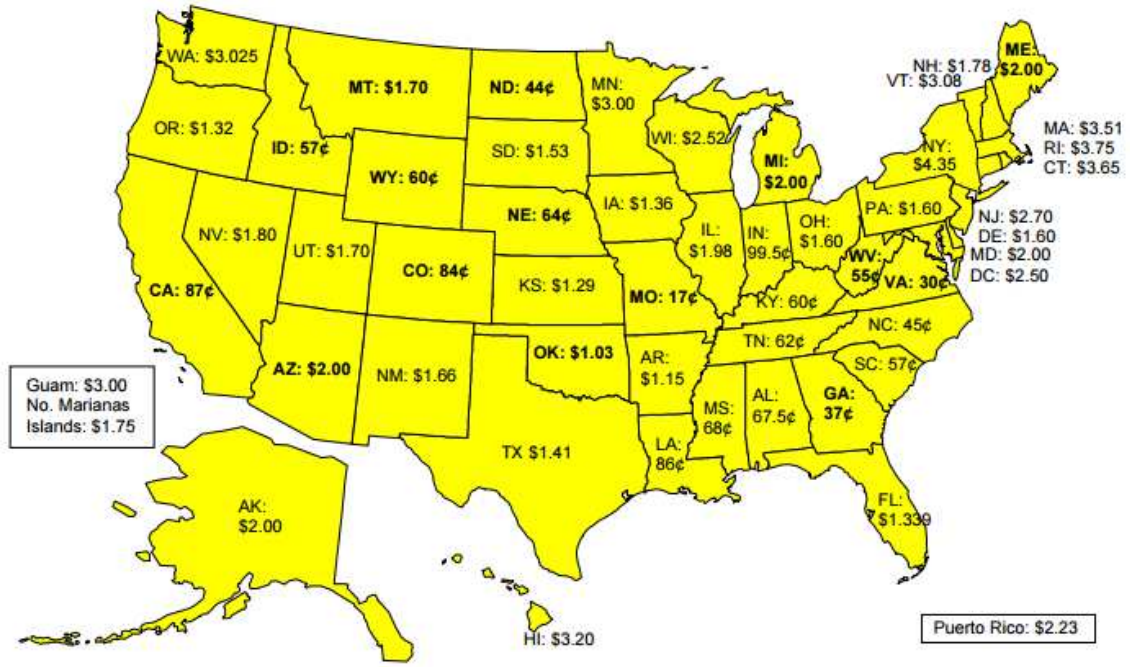


Source: SC DHEC Public Health Statistics and Information Services

Extensive research findings demonstrate that the most effective strategies for reducing prevalence of tobacco use and lung cancer involve tobacco control policies. The average state cigarette tax in the US is $1.61 per pack. The major tobacco states with extensive tobacco farming and cigarette manufacturing are North Carolina, Kentucky, Virginia, South Carolina, Tennessee, and Georgia. The average state cigarette tax in these states is $0.485. South Carolina has a higher tax than the average for tobacco states - $0.57 as of January 2016. (There has been no change in this tax since the 2013 iteration of this report). The average for non-tobacco states is $1.76. Federal cigarette tax is $1.01 per pack. Some local governments also have cigarette taxes, e.g. Chicago ($1.18) and Cook County, IL ($3.00), New York City, NY ($1.50), Philadelphia, PA ($2.00), and Juneau, AK ($3.00).

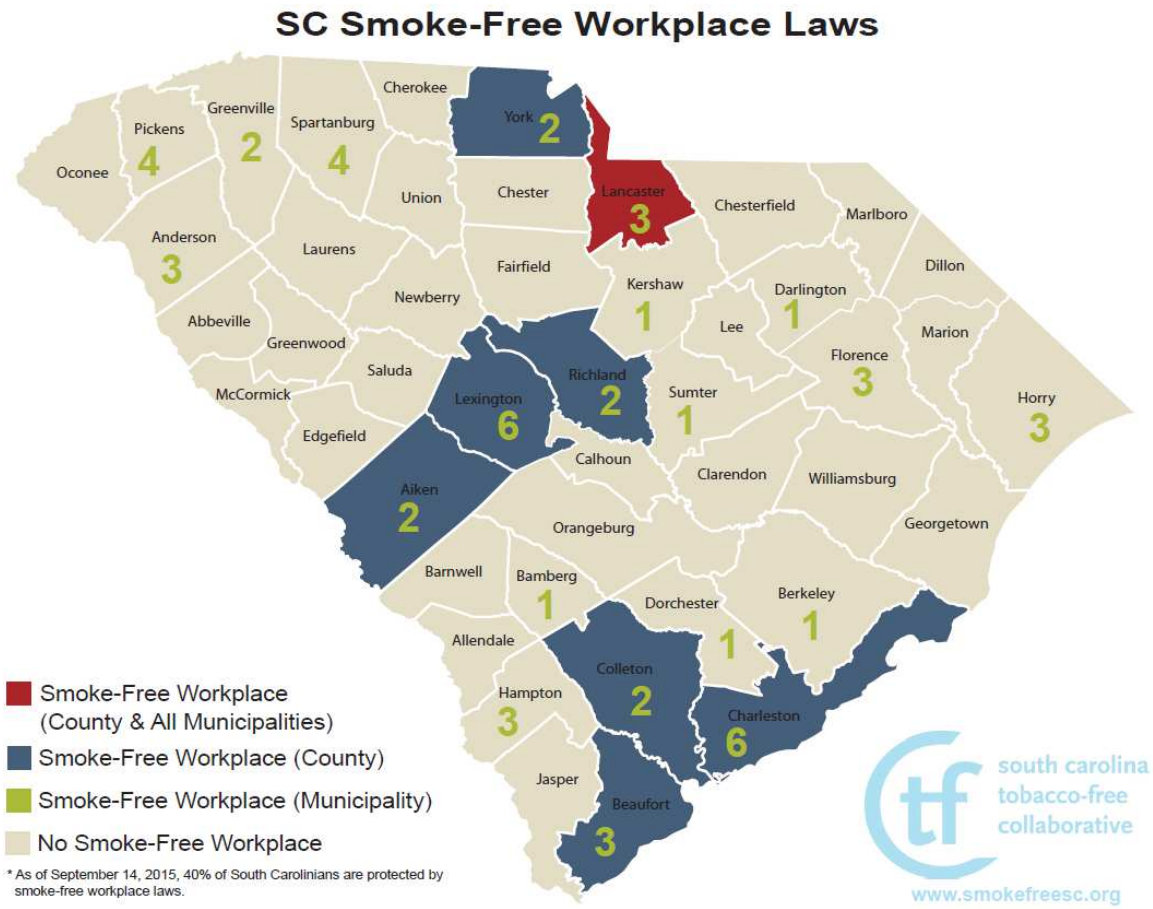
The US Centers for Disease Control & Prevention estimates that health costs and productivity losses caused by smoking total $19.16 per pack sold and consumed in the US (up from $10.47 in 2013).

State Cigarette Tax Rates as of January 2016



Source: Campaign for Tobacco-Free Kids
**States without cigarette tax rate increase since 2006 or earlier are marked in bold.*
***Not shown: local government taxes; special taxes/fees on cigarettes made by Non-Participating Manufacturers*

To alleviate the health and economic burden of tobacco use, SC DHEC promotes policies that protect residents from exposure to secondhand smoke, implements programs to prevent youth from starting tobacco use, and addresses health disparities. Notable progress has been made in South Carolina to protect residents from tobacco smoke. As of September 2015, approximately 40% of South Carolina residents are protected by local smoke-free workplace laws (up from 30% in the last iteration of this report), including four in Spartanburg County: the municipalities of Spartanburg, Chesnee, Inman, and Duncan. Inman and Duncan are new since the last iteration of this report.



Source: South Carolina Tobacco-Free Collaborative

Oral Health

In 2012, an oral health indicator was selected to be one of the 12 leading health indicators for the nation. The primary Healthy People 2020 objective for oral health is to *increase the proportion of children, adolescents, and adults who used the oral health care system in the past year*. Seventeen of the *Healthy People 2020* objectives relate directly to oral health and a number of others reflect the connection between oral disease and other chronic illnesses such as diabetes and cancer.

Like general health, oral health status in the US tends to vary based on social and economic conditions. In 2000, *Oral Health in America: A Report of the Surgeon General* called "the profound and consequential disparities in the oral health of our citizens" a "silent epidemic" with low income adults almost twice as likely as higher income adults to have gone without a dental checkup in the previous year.

The table below reports oral health data from the SC BRFSS for the combined 2013-2014 years. Spartanburg county adults visit the dentist / dental clinic at a lower rate than the state average. Approximately 11% of the county's adult residents have no teeth, as they have been removed due to tooth decay or gum disease. This is higher than the state average of almost 7%.

How long has it been since you last visited a dentist or dental clinic for any reason?

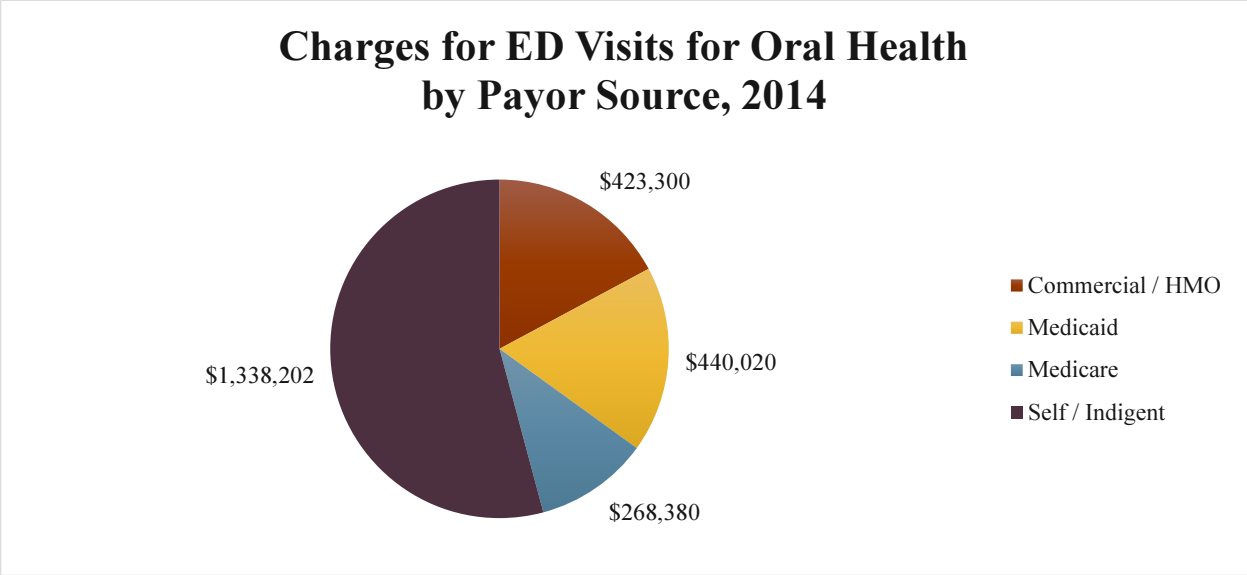
	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Within the past year	55.03	48.71 - 61.34	58.32	57.04 - 59.61
Within the past 2 years	12.34	8.02 - 16.67	12.71	11.81 - 13.61
Within the past 5 years	13.81	9.17 - 18.44	12.89	12.02 - 13.77
5 or more years ago	18.18	13.36 - 23.00	15.02	14.09 - 15.95
Never	0.64	0.00 - 1.60	1.05	0.72 - 1.38

How many of your permanent teeth have been removed because of tooth decay or gum disease?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
1 to 5	27.46	22.05 - 32.88	28.85	27.70 - 30.01
6 or more, but not all	16.71	12.22 - 21.20	13.57	12.78 - 14.37
All	10.72	7.16 - 14.27	6.78	6.19 - 7.38
None	45.12	38.68 - 51.55	50.79	49.48 - 52.10

Data Source: SC DHEC Public Health Statistics and Information Services

Analysis of 2014 Emergency Department data for oral health problems shows 2,898 visits to the ED with total charges of $2,478,808. Of these visits, 11 were admitted to inpatient treatment. Cost data, excluding diagnosis *disturbance of tooth eruption* (n=11), show that 54% of charges were for uninsured (self-pay / indigent) individuals.



Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section

In 2012, there were 1,609 visits by uninsured Spartanburg County residents to hospital Emergency Departments for dental conditions. The total cost for these visits was $1,186,418. In 2014, there were 1,604 visits by uninsured residents and the total cost of these visits was $1,338,202. Although rates are not calculated here, it is clear that little progress has been made on this issue. Dental conditions constituted the third highest number of ED visits (by diagnostic code) by uninsured Spartanburg County residents in 2012. As of 2014, dental conditions have moved to 12th highest diagnostic category for uninsured patients in the ED.

Americans are increasingly visiting Emergency Departments for preventable dental conditions. This problem is being driven, in part, by a significant shortage of dentists. As of November 2013, all of Spartanburg County continued to be designated a Dental HPSA for low income residents (no change since the 2013 issue of this report – see page 29). It is estimated that 9,500 new dentists are needed to meet American's oral health needs – a problem that is compounded every year when more dentists retire than join the field.

Sources:

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SC Cancer Disparities Community Network: http://sccdcn.sph.sc.edu/

SC DHEC: http://www.scdhec.gov/Health/FHPF/WaiversforHealthcareProfessionalShortages/ShortageMaps/

SC DHEC Chronic Disease Epidemiology Division: http://www.scdhec.gov/Health/docs/Epi/obesity/Spartanburg.pdf

SC DHEC Cancer Data and Information: http://www.scdhec.gov/Health/DiseasesandConditions/Cancer/CancerStatisticsReports/CancerData/

SC DHEC Public Health Statistics and Information Services: http://www.scdhec.gov/Health/SCPublicHealthStatisicsMaps/

SC Revenue and Fiscal Affairs Office: http://rfa.sc.gov/healthcare/utilization

SC Tobacco Collaborative: http://www.sctobaccofree.org/

US Census, American Fact Finder: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

LEADING INDICATOR IV: Healthy Minds

ALLIANCE FOR A HEALTHIER SOUTH CAROLINA GOAL: Improve access to behavioral health services that are holistic and appropriate and allow people to achieve and maintain behavioral health wellness.

Mental Health

Access to mental health services is frequently measured in terms of penetration rate, that is, the extent to which people who need behavioral health services are reached. However, South Carolina is losing ground on this measure. The penetration rate in South Carolina has increased approximately one percentage point between 2012 and 2014 while the US penetration rate has increased by almost three percentage points. County-level penetration rates are no longer reported through SC Department of Mental Health (SC DMH).

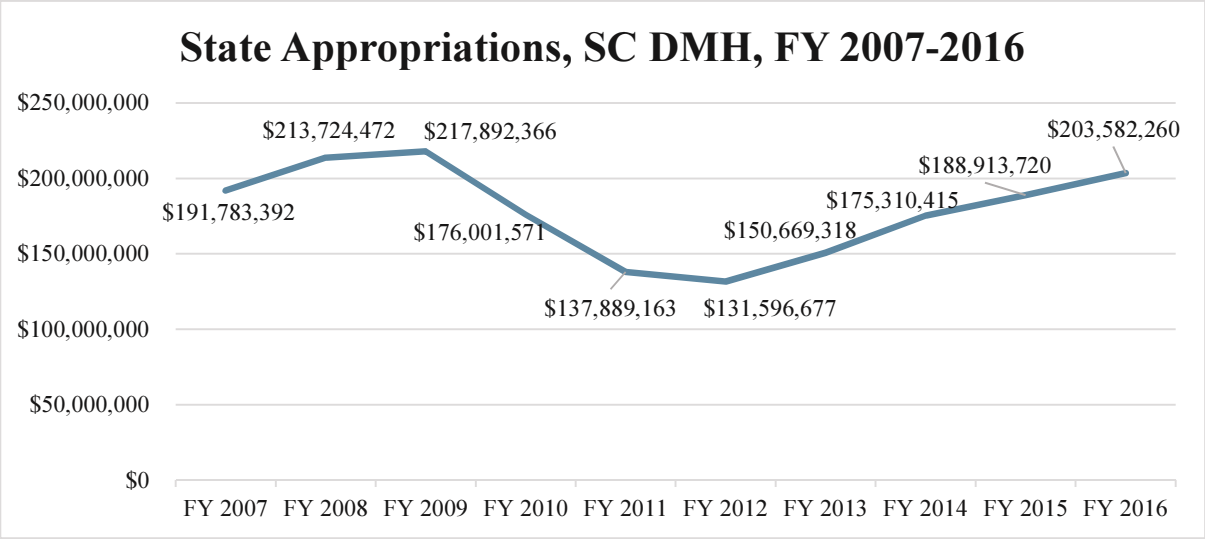
Mental Health Services Penetration Rate per 1,000 population, SC and US

	2012	2013	2014
SC	15.9%	16.79%	16.94%
US	20.0%	22.77%	22.78%

Data Source: CMHS Uniform Reporting System

According to data released in the SC Institute of Medicine in the Public Health 2015 study, *Hope for Tomorrow: The Collective Approach for Transforming South Carolina's Behavioral Health Systems*, Mental Health America recently reported that South Carolina ranks 43rd of 51 states (including the District of Columbia) in accessibility of mental health services. Variables included in this ranking are access to insurance, access to treatment, quality and cost of insurance, access to special education, and workforce availability. Data also show that South Carolina ranks 48th in the proportion of children who obtain needed mental health services. The taskforce created a vision for behavioral health in South Carolina based on two focal points: the need for crisis stabilization services and the need for a better, more accessible system of chronic care management. Further detail can be found in the taskforce's report.

A positive finding is that the legislative appropriations to the Department of Mental Health budget have increased annually for the last 4 years. However, state appropriations to SC DMH in 2016 are still 6.6% lower than in 2009, the highest level of funding in the last decade.



Data Source: SC Department of Mental Health

The table below provides self-report data on the status of mental health over the previous 30 days, provided through the SC BRFSS for the combined 2013-2014 years. Spartanburg adults report about the same mental health status on this measure as the state average.

For how many days during the past 30 days was your mental health not good?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
None	65.46	60.99 - 69.92	65.70	64.78 - 66.62
1-2 days	7.12	4.78 - 9.45	7.64	7.11 - 8.17
3-7 days	12.44	9.15 - 15.73	10.55	9.96 - 11.14
8-29 days	8.56	5.91 - 11.22	9.74	9.14 - 10.34
30 days	6.42	4.38 - 8.46	6.38	5.90 - 6.86

Data Source: SC DHEC Public Health Statistics and Information Services

As of December 2015, all of Spartanburg County was designated a Mental Health Professional Shortage Area (see page 45) for low income residents (no change since the 2013 issue of this report). In 2014, there were 4,544 visits to Emergency Departments in Spartanburg County for Mental Disorders (including drug or alcohol diagnoses) that did not result in inpatient hospitalization. Of these visits, 34% were by self-pay / indigent patients.

Emergency Department Visits* for Mental Disorders, Spartanburg County, 2014 (including drug or alcohol dependence syndromes)

Payor	Visits	Total charge	Average Charge†
Commercial / HMO	947	$2,245,320	$2,053
Medicaid	967	$2,020,602	$1,901
Medicare	1,088	$3,112,039	$2,480
Self / Indigent	1,542	$3,760,051	$2,166
Total	**4,544**	**$11,138,013**	**$2,161**

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Excludes admissions to inpatient via ED*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

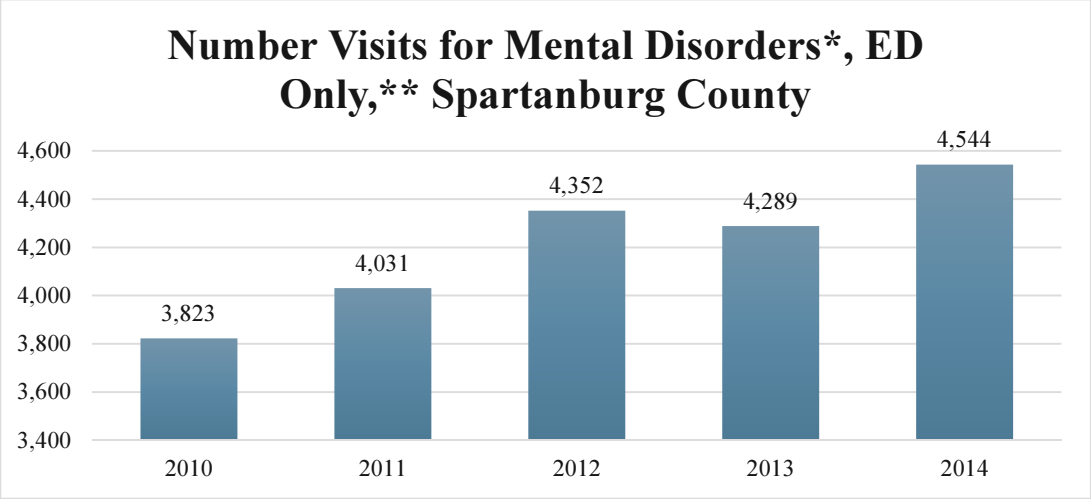
Spartanburg County Emergency Department data for specific behavioral health diagnoses is provided in the table below. There were a total of 4,544 visits for behavioral health in the ED, for a total of $11.1 million.

Emergency Department Visits* for Mental Disorders, Spartanburg County, 2014 (including drug or alcohol dependence syndromes)

Diagnosis	Visits	Total charge	Average Charge†
Alcohol Dependence Syndrome	130	$397,758	$2,667
Anxiety States	1,061	$2,072,353	$1,691
Drug Dependence	53	$111,629	$1,841
Nondependent Use of Drugs	628	$1,867,332	$2562
Organic Psychotic Conditions	317	$1,120,867	$3,006
Schizophrenic Disorders	242	$622,582	$2,275
Other Neuroses and Personality Disorders	126	$282,297	$2,066
Other Psychoses	611	$1,717,679	$2,552
Other Mental Disorders	1,376	$2,945,516	$1,947
Diagnostic Category Total	**4,544**	**$11,138,013**	**$2,161**

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Excludes admissions to inpatient via ED*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

There was a 19% increase in numbers of visits to the ED for behavioral health conditions from 2010 to 2014; however, the annual trend is inconsistent, with a slight dip in numbers of visits in 2013.



Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**Category total includes alcohol dependence syndrome, anxiety states, drug dependence, nondependent use of drugs, organic psychotic conditions, schizophrenic disorders, other neuroses and personality disorders, other psychoses, other mental disorders*
***does not include admissions to inpatient via ED*

There were 973 inpatient hospitalizations for behavioral health conditions in Spartanburg County in 2014. The table below provides inpatient behavioral health data disaggregated by specific diagnosis.

Inpatient Data for Mental Disorders by Diagnosis, Spartanburg County, 2014

Diagnosis	Discharges	Total Charges	Average Charge†
Alcohol Dependency Syndrome	13	$233,953	$17,996
Anxiety states	16	$246,588	$15,412
Drug Dependence	Not reportable*	Not reportable*	Not reportable*
Nondependent use of Drugs	11	$224,833	$20,439
Organic Psychotic Conditions	222	$7,031,080	$28,166
Schizophrenic disorders	114	$3,444,123	$26,602
Other Neuroses & Personality Disorders	14	$410,508	$24,055
Other Psychoses	501	$13,403,755	$23,116
Other Mental Disorders	80	$1,407,192	$15,564
TOTAL	**973**	**$26,417,443**	**$23,697**

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
**data is not reported where the number of discharges is less than 5*
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

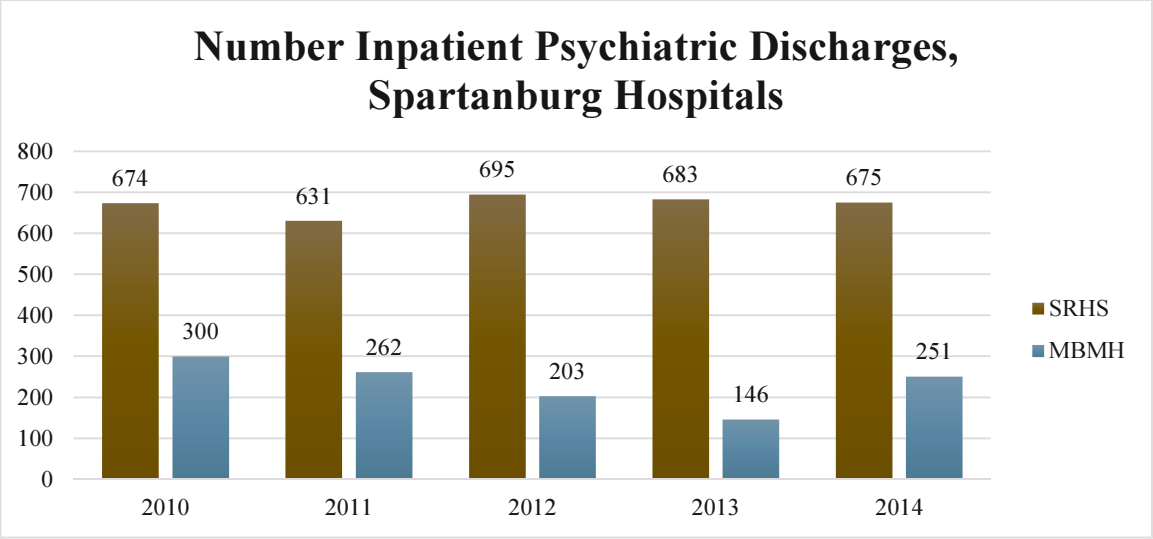
Payor data is provided in the table below for inpatient behavior health conditions in Spartanburg County in 2014.

Inpatient Payor Data for Mental Disorders, Spartanburg County, 2014

Payor	Discharges	Total Charges	Average Charge†
Commercial / HMO	166	$4,199,926	$21,586
Medicaid	188	$3,807,646	$17,776
Medicare	402	$14,409,108	$31,379
Self-Pay / Indigent	217	$4,360,762	$18,061
TOTAL	**973**	**$26,417,443**	**$23,697**

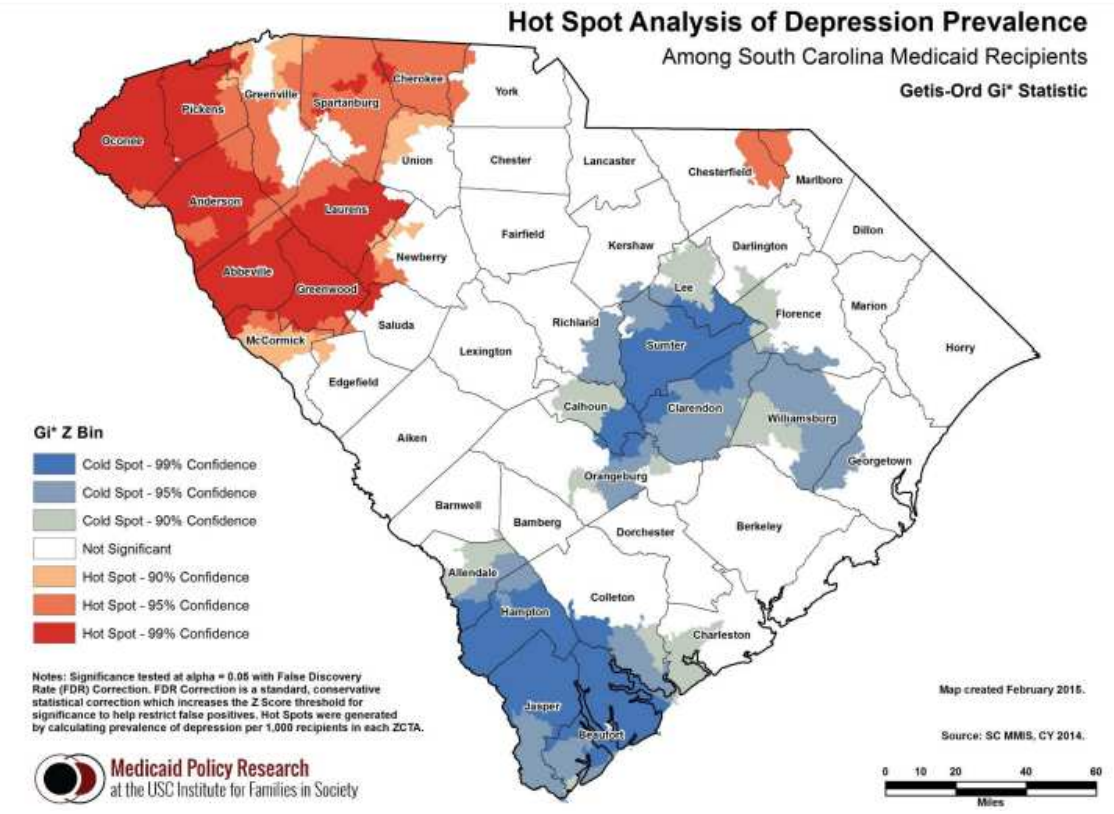
Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

As illustrated in the graph below, inpatient psychiatric discharges from Spartanburg Regional Health System (SRHS) have decreased slightly over the last 3 years, annually. Discharges at Mary Black Memorial Hospital (MBMH) increased substantially from 2013 to 2014.



Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section

The graphic below, created by the Center for Medicaid Policy Research at University of South Carolina Institute for Families in Society and reported through the Alliance for a Healthier South Carolina, demonstrates that much of Spartanburg County is a "hot spot" for depression for Medicaid recipients.



Source: Alliance for a Healthier SC

Although access to mental health services is an ongoing challenge in Spartanburg County and across the state, the SC Department of Mental Health (SC DMH) reports that access to community mental health services is increasing. Compared to fiscal year 2014, new cases and readmissions in fiscal year 2015 increased by 3.17%. New cases and readmissions in the first half of fiscal year 2016 are 2.07% higher than in the first half of 2015. As of January 2016, SC DMH's Emergency Department telepsychiatry consultation program had provided 26,300 psychiatric consultations in Emergency Departments across South Carolina. This program was developed to meet the critical shortage of psychiatrists in South Carolina's underserved areas and to assist hospital emergency rooms by providing appropriate treatment to persons in a behavioral crisis using real-time, state-of-the-art video-and-voice technology that connects SC DMH psychiatrists to hospital Emergency Departments throughout the state. County level data for SC DMH are not available.

SPOTLIGHT ON BEST PRACTICES: Behavioral Health Taskforce

The Spartanburg Behavioral Health Taskforce has implemented a best practice model of well entrenched and interlocking trainings to build the capacity of our community to provide behavioral health services. These trainings are offered to guidance counselors throughout the school system, to all current and new hospital staff, to all students at Edward Via College of Osteopathic Medicine, Carolinas Campus, and as a component of the law enforcement training protocol. The trainings include SBIRT (screening, brief intervention, and referral to treatment), Motivational Interviewing, and Mental Health First Aid. Through the implementation of these trainings, we are building the capacity of our upstream safety net providers first to be trained communicators with individuals in non-crisis situations and then to be effective interventionists to defuse an emerging mental health situation from evolving into a major crisis.

By prioritizing services to patients with a behavioral health diagnosis in Spartanburg's HOPS Initiative, AccessHealth Spartanburg has tracked a 31% reduction of Emergency Department usage and 24% reduction in costs of these patients.

The Taskforce has also identified a best practice of embedding psychiatric and counseling services in various settings, piloting initiatives in community health clinics and the Detention Center. Plans to expand the telepsychiatry program and to embed counselors into medical practices are underway.

Substance Use Disorders

The South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS) provides assessment, education, intervention, and treatment services to adults and adolescents with substance abuse problems throughout the state via county alcohol and drug abuse authorities such as Spartanburg's Forrester Center for Behavioral Health. The mission of the Forrester Center is to *improve the lives of our community members through Substance Use Disorder treatment, Non-Substance Behavioral Health therapy, and Prevention and Education services*. Additionally, the Forrester Center provides certified Alcohol and Drug Safety Action Program (ADSAP) classes, Drug Treatment Court, anger management, and domestic violence treatment.

Each year, more than 50,000 South Carolinians receive direct intervention and/or treatment services through the DAODAS county centers including the Forrester Center. These local agencies also coordinate thousands of prevention activities each year for South Carolinians of all ages. More than

one million residents of South Carolina have been served by these county centers since their creation in 1973. No service data at the county level are available.

Alcohol Use

The table below reports adult alcohol consumption data from the SC BRFSS for the combined 2013-2014 years. Compared to the state average, Spartanburg County adults report lower rates of alcohol consumption. Spartanburg County adults are less likely to drink excessively in a given month and they report a lower rate of binge drinking.

During the past 30 days, how many days did you have at least one drink of any alcoholic beverage?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
None	65.16	60.70 - 69.62	52.13	51.18 - 53.08
1-2 days	11.03	8.03 - 14.03	13.77	13.08 - 14.45
3-7 days	9.90	6.97 - 12.83	14.36	13.68 - 15.04
8-29 days	10.63	7.92 - 13.34	15.06	14.38 - 15.73
Every day	3.28	1.68 - 4.87	4.69	4.32 - 5.06

During the past 30 days on the days that you drank, about how many drinks did you drink on average?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
One drink	41.01	33.62 - 48.40	38.04	36.71 - 39.38
Two drinks	34.27	26.41 - 42.12	31.02	29.73 - 32.31
Three drinks	15.83	8.47 - 23.19	14.55	13.48 - 15.61
Four drinks	7.19	3.22 - 11.16	5.99	5.30 - 6.69
Five or more drinks	1.70	0.00 - 3.46	10.40	9.46 - 11.34

How many times during the past 30 days did you [binge drink]?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
None	74.10	66.51 - 81.70	69.26	67.92 - 70.60
Once	12.55	6.42 - 18.69	10.30	9.38 - 11.22
Twice	6.10	1.41 - 10.79	6.68	5.95 - 7.41
3-7 times	5.64	2.07 - 9.20	8.95	8.13 - 9.77
8-30 times	1.60	0.00 - 3.37	4.81	4.14 - 5.47

Data Source: SC DHEC Public Health Statistics and Information Services

When behavioral health data for ED visits were filtered for Alcohol Dependency Syndrome, there were a total of 130 visits in Spartanburg County Emergency Departments in 2014.

ED visits for Alcohol Dependency Syndrome, Spartanburg County, 2014

Payor	Visits	Total Charge	Average charge†
Commercial / HMO	22	$63,552	$2,755
Medicaid	18	$44,811	$2,490
Medicare	32	$115,688	$2,755
Self / Indigent	58	$173,706	$2,590
Total	**130**	**$397,758**	**$2,667**

Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

The table below provides detailed ED and inpatient drug and alcohol data, disaggregated by sex, age, and race for 2012-2014.

Spartanburg County Resident Emergency Room Visits & Inpatient Hospitalizations Having Any Diagnosis of Alcohol or Drug Dependence, Calendar Years 2012-2014

2012		2012 Total	2012 Alcohol	2012 Other Drugs
	Total	**31,076**	**2,540**	**28,536**
Race	Caucasian	22,825	1,692	21,133
	African-American	6,884	733	6,151
	Other	1,367	115	1,252
Age	0-17	294	19	275
	18-44	17,234	831	16,405
	45-64	10,774	1,369	9,405
	65+	2,774	321	2,453
Sex	Female	16,109	662	15,447
	Male	14,967	1,878	13,089

2013		2013 Total	2013 Alcohol	2013 Other Drugs
	Total	**31,950**	**2,630**	**29,320**
Race	Caucasian	23,493	1,800	21,693
	African-American	7,877	745	7,132
	Other	580	85	495
Age	0-17	278	24	254
	18-44	18,009	920	17,089
	45-64	10,885	1,378	9,507
	65+	2,778	308	2,470
Sex	Female	16,474	736	17,738
	Male	15,476	1,894	13,582

2014		2014 Total	2014 Alcohol	2014 Other Drugs
	Total	**39,589**	**2,912**	**36,677**
Race	Caucasian	27,791	1,963	25,828
	African-American	11,065	857	10,208
	Other	733	92	641
Age	0-17	398	19	379
	18-44	22,805	958	21,847
	45-64	13,049	1,531	11,518
	65+	3,337	404	2,933
Sex	Female	20,529	765	19,764
	Male	19,060	2,147	16,913

Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section

Drug Abuse

When behavioral health data for ED visits is filtered for Drug Dependence, there were a total of 53 visits in Spartanburg County Emergency Departments in 2014.

Emergency Department Visits for Drug Dependence, Spartanburg County, 2014

Payor	Visits	Total Charge	Average charge†
Commercial / HMO	6	$20,543	$3,424
Medicaid	16	$26,021	$1,461
Medicare	7	$12,192	$1,742
Self / Indigent	24	$52,874	$1,996
Total	**53**	**$111,629**	**$1,841**

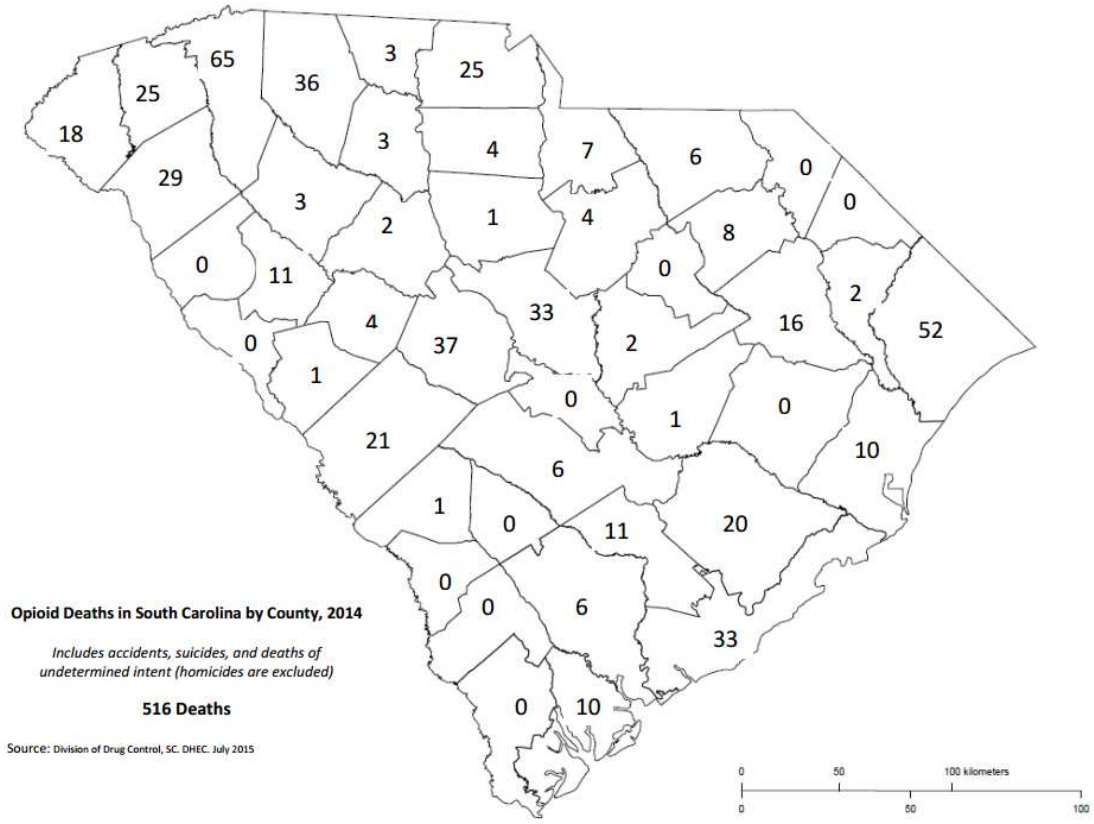
Data Source: SC Revenue and Fiscal Affairs Office, Health and Demographics Section
†Observations 2 standard deviations above or below the mean have been removed in calculations of averages to control for outliers

Addiction to heroin and prescription opioid medications such as morphine, codeine, oxycodone, hydrocodone, etc. has reached unprecedented levels in the United States. According to the Centers for Disease Control and Prevention, roughly 129 Americans died from a drug overdose each day in 2014. Two-thirds of those deaths involved heroin or opioids. According to the Governor's Prescription Drug Abuse Prevention Council, in 2012, South Carolina ranked 10th highest in opioid painkiller prescriptions per capita - 33% higher than the national average. For every overdose death, there are 32 Emergency Department admissions and 825 non-medical users of prescription drugs.

In South Carolina, there were 516 opioid deaths in 2014. Greenville County led the state in numbers of opioid deaths, followed by Horry, Lexington, and Spartanburg Counties. A statewide intervention partnership between the Alliance for a Healthier South Carolina and the Department of Alcohol and Other Drug Abuse Services (DAODAS) targets this problem by placing permanent drop-boxes in each county for the collection of unused prescription medications to make it easier for patients to rid their homes of unwanted medications that may otherwise be misused. Availability of drop-boxes helps raise awareness of the dangers of misusing prescription drugs and decreases contamination of the water supply through flushing unused medication. In April 2016, Spartanburg County joined 20 other counties across the state that have permanent drop-boxes. The Spartanburg

County Sheriff's Department installed and opened to the public the first drop-box kiosk in the County at its office on Howard Street. The drop-box was provided by CVS pharmacy through its national campaign to provide free drop-boxes to law enforcement agencies. There is also an annual event, RXcycle, which offers safe disposal of unused and expired pills in multiple locations across the county. It is spearheaded by Spartanburg Water with community partners and can also take liquids, creams, inhalers and syringes.

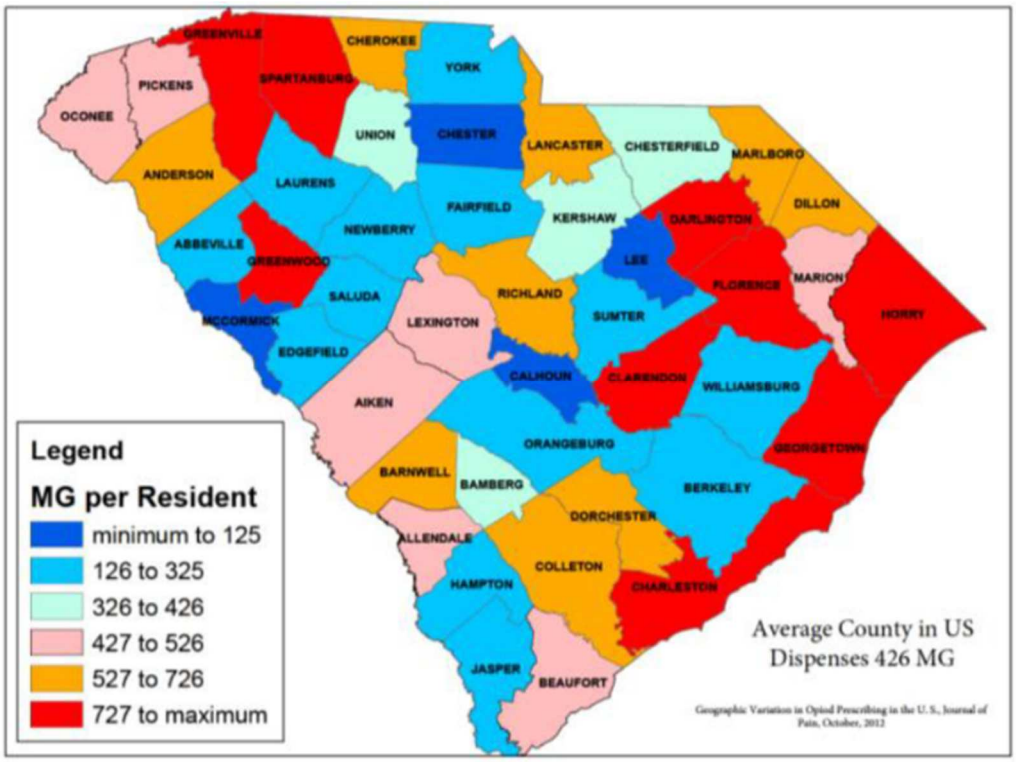
Opioid Deaths in SC by County, 2014



Source: Alliance for a Healthier SC

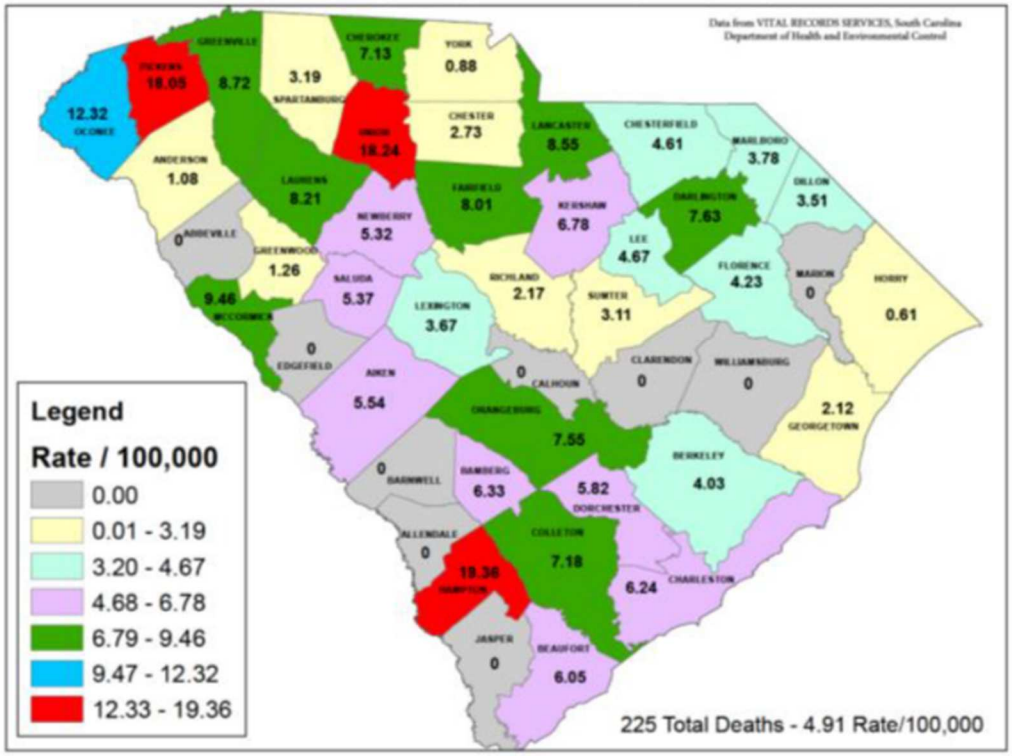
According to the Alliance for a Healthier South Carolina demonstrated in the infographic below, there is wide variation in the volume of prescriptions written by county and there is a wide variation in death rates.

Average Number of Prescription Opioids Dispensed, 2011, Mg per County



Source: Alliance for a Healthier SC

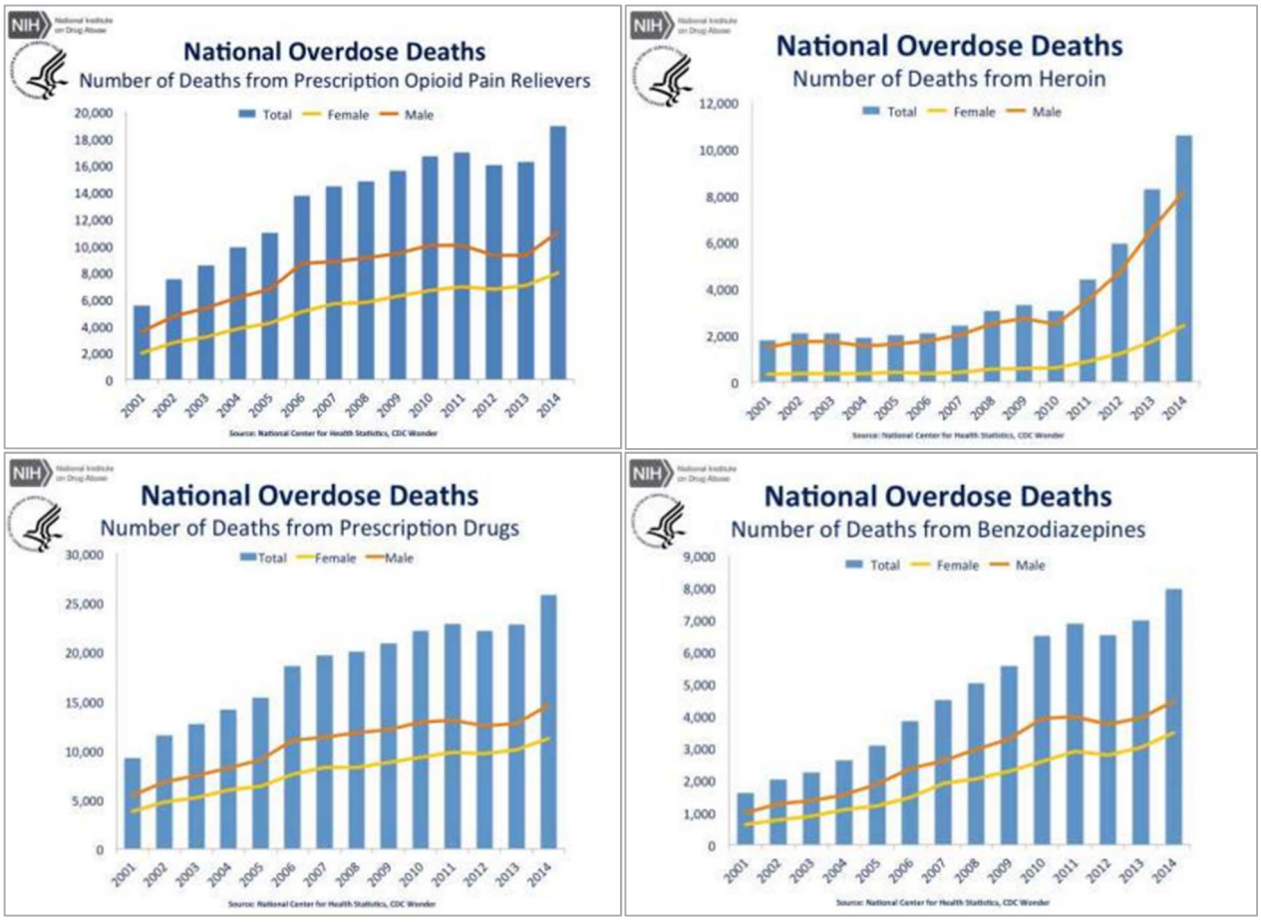
Drug Overdose Deaths by County, 2011, Rate per 100,000 Residents



Source: Alliance for a Healthier SC

The infographics below demonstrate US overdose death trends.

National Overdose Deaths, Trend by Category



Source: National Institute on Drug Abuse

Sources:

The Alliance for a Healthier South Carolina (2016, January 22). New: Opioid Deaths by county 2014. Alliance Newsletter: http://healthiersc.org/wp-content/uploads/2016/01/Opioid-deaths-in-SC.pdf

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SC DAODAS: http://daodas.state.sc.us/index.asp

Spartanburg Water RxCycle: http://www.spartanburgwater.org/rxcyclespartanburg

SC Department of Mental Health: http://www.state.sc.us/dmh/about_scdmh.htm

SC Revenue and Fiscal Affairs Office, Health and Demographics Section: http://rfa.sc.gov/healthcare/fka_ors

Secondary Indicators

Secondary Indicators are other variables that have a direct impact on Public Health, are tangentially reflective of the state of Public Health, or derive from the Leading Indicators.

Adult Vaccination

The table below reports adult vaccination data from the SC BRFSS for the combined 2013-2014 years. These data show that Spartanburg County adults have a lower rate of vaccination for flu and pneumonia compared to the state average and approximately the same rate for shingles vaccination.

Have you had a flu shot / spray in the past 12 months?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	36.54	32.29 - 40.80	39.80	38.88 - 40.72
No	63.46	59.20 - 67.71	60.20	59.28 - 61.12

Have you ever had a pneumonia shot?

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	32.63	28.32 - 36.95	34.13	33.21 - 35.05
No	67.37	63.05 - 71.68	65.87	64.95 - 66.79

Have you ever had the shingles or zoster vaccine? (2014 only)

	Spartanburg County		South Carolina	
	%	95% Confidence Interval	%	95% Confidence Interval
Yes	18.22	13.49 - 22.95	18.62	17.51 - 19.72
No	81.78	77.05 - 86.51	81.38	80.28 - 82.49

Data Source: SC DHEC Public Health Statistics and Information Services

Violence and Injury Mortality

One of the goals of Healthy People 2020 is to prevent unintentional injuries and violence and to reduce their consequences. Unintentional injuries and those caused by acts of violence are among the top 15 causes of death for Americans of all ages and the leading cause of death for people age 1-44. Even though most events resulting in injury, disability, or death are predictable and preventable, approximately 10% of Americans sustain a nonfatal injury serious enough to be treated in a hospital Emergency Department.

The top three leading causes of death in the United States and in South Carolina in 2013 for adolescents and young adults age 15-24 were unintentional injury, suicide, and homicide.

South Carolina Resident Causes of Injury Deaths, 2013

All Ages		
Cause of Injury	**#**	**Rate***
All Injury	**3,331**	**68.1**
Unintentional Injury	2,302	482.1
Motor Vehicle Traffic	756	15.6
Poisoning	568	11.9
Fall	367	7.1
Other Specified, Unspecified	176	3.5
Suffocation	134	2.7
Fire or Hot Object	74	1.3
Drowning	71	1.5
Natural or Environmental	23	0.5
Transport, Other	23	0.5
Pedestrian, Other	18	0.4
Firearm	15	0.3
Struck by or Against	12	0.2
Machinery	8	0.2
Pedal Cyclist, Other	2	#
Cut or Pierce	1	#
Intentional Injuries	1,024	214.5
Suicide	698	14.0
Homicide	316	6.8
Legal Intervention	10	0.2
Undetermined Intention	44	0.9

Age 0-17		
Cause of Injury	**#**	**Rate***
All injury	**157**	**14.4**
Unintentional Injury	99	91.0
Suffocation	31	2.8
Motor Vehicle Traffic	23	2.1
Drowning	17	1.6
Fire or Hot Object	9	0.8
Transport, Other	6	0.6
Pedestrian, Other	3	#
Poisoning	3	#
Other Specified, Unspecified	2	#
Natural or Environmental	2	#
Struck by or Against	2	#
Firearm	1	#
Intentional Injuries	47	4.3
Homicide	28	2.6
Suicide	19	1.7
Undetermined Intention	10	0.9

Source: SC DHEC
**Per 100,000*

Child Fatalities

In South Carolina, the State Child Fatality Advisory Committee (SC FAC) reviews all child fatalities, analyzing individual cases to develop an understanding of the causes and incidences of child deaths and to propose changes in statutes, regulation, policies, and procedures to ultimately prevent and reduce the number of child deaths in the state. There were 6,059 fatalities in South Carolina of residents age 0-17 from 2006 to 2014. Data for Spartanburg County are reported in the table below, taken from two sources as indicated.

Number of Child Fatalities by Manner of Death, Spartanburg County, Age 0-17

	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Accident	2	4	3	7	2	4		2	Unavailable from child fatalities report	24
Homicide		2	3	6	1	2	1			15
Natural	2	4	6	3	2	4	1	1		23
Suicide	2	1		1	1	3		1		9
Undetermined	5	3	3	9	6	5	1	1		33
Total	**11**	**14**	**15**	**26**	**12**	**18**	**3**	**5**		**104**
Total All Causes	**15**	**15**	**17**	**24**	**12**	**18**	**13**	**16**	**20**	**150**

Source: SC DHEC Child Fatalities Report and SC DHEC SCAN

Homicide Deaths

The numbers and rates of homicide deaths in Spartanburg County and in peer counties are reported in the table below.

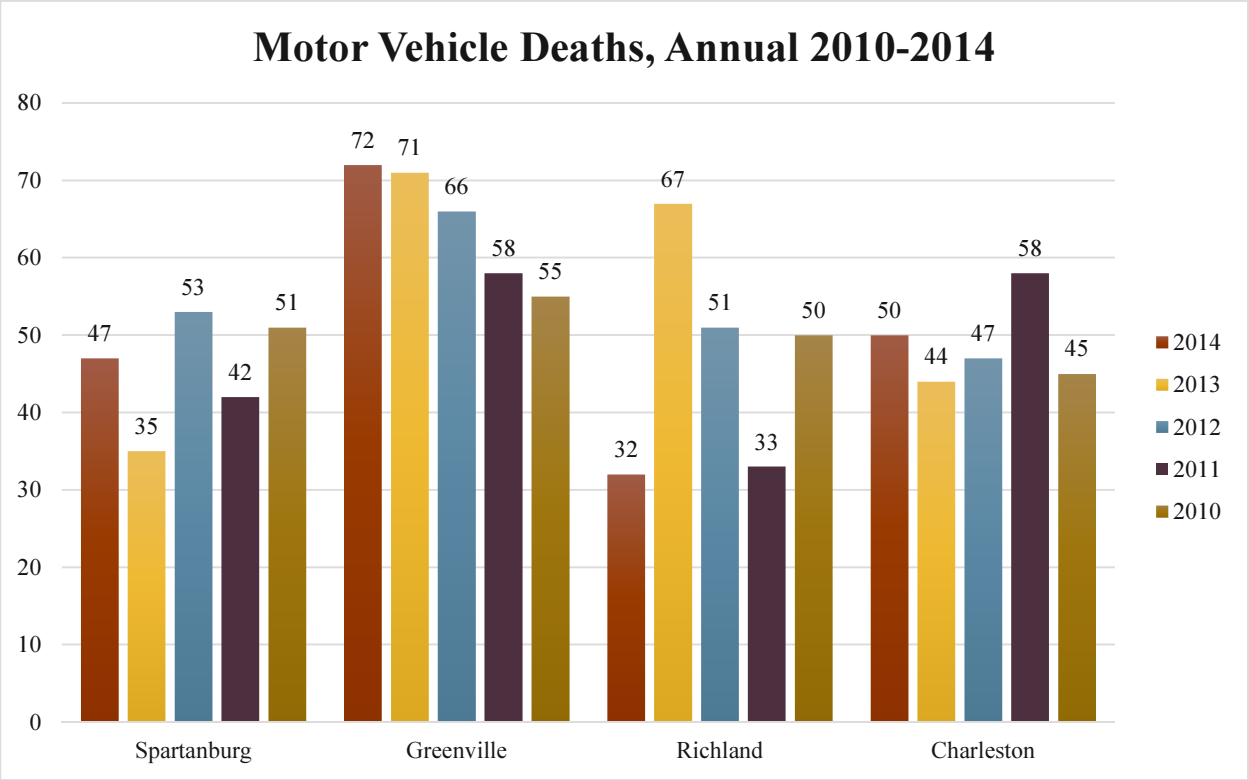
Homicide Deaths, Numbers and Rates per 100,000 Population, Annual 2010-2014

	2010		2011		2012		2013		2014	
	#	rate	#	rate	#	rate	#	rate	#	rate
Spartanburg	19	6.7	22	7.7	23	8.0	8	DSU*	12	DSU*
Greenville	23	5.1	34	7.4	24	5.1	25	5.3	27	5.6
Richland	30	7.8	35	9.0	25	6.3	39	9.8	32	8.0
Charleston	40	11.4	29	8.1	41	11.2	30	8.0	44	11.5

Source: DHEC SCAN Community Profiles
**DSU: Data is statistically unreliable*

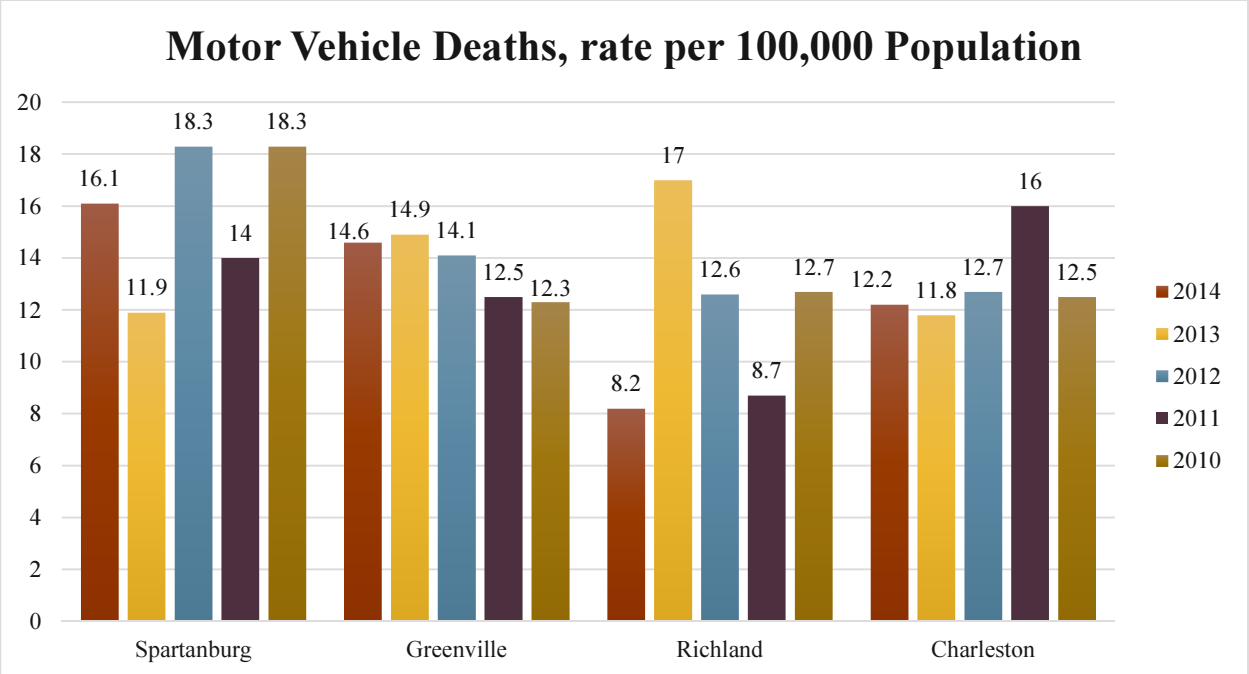
Motor Vehicle Deaths

The number of motor vehicle deaths in Spartanburg County has varied over the last 5 years. Richland and Charleston Counties show the same pattern; however, Greenville County has experienced an annual increase in deaths over the last 5 years.



Source: DHEC SCAN Community Profiles

When motor vehicle death rates are examined by county over the last 5 years, Spartanburg County has generally higher rates, compared to peer counties.



Source: DHEC SCAN Community Profiles

Sexually Transmitted Infections

Sexually Transmitted Infections (STIs) are associated with a significantly increased risk of morbidity and mortality, including increased risk of cervical cancer, involuntary infertility, and premature death.

HIV/AIDS

In 2013 (the latest available data), South Carolina ranked 13th for AIDS incidence. More than 15,000 South Carolina residents, including about 200 children and teens, are living with HIV infection or AIDS. The number of people living with HIV/AIDS in South Carolina has increased dramatically in the past 10 years for all races and both genders. Notably in 2013, Columbia, Charleston, and Greenville ranked 14th, 19th, and 45th among large US Metropolitan Statistical Areas for incidence of AIDS.

Piedmont Care, Inc., the nonprofit organization providing HIV and AIDS testing, care, advocacy, and prevention in Spartanburg County, reports that it currently serves approximately 580 people living with HIV/AIDS. Approximately 75% of those reside in Spartanburg County. Since its inception in 1994, Piedmont Care has served over 1,400 people living with HIV/AIDS and their families. Each year Piedmont Care serves approximately 60 new HIV-positive clients and provides more than 100 free HIV tests, having provided in excess of 700 since 2004. Spartanburg Regional Healthcare System has been tasked with serving Spartanburg County residents who are HIV positive but do not have sufficient health care coverage or financial resources for coping with the disease.

The table below shows incidence of HIV/AIDS by years diagnosed. The rate of diagnosis does not seem to be slowing significantly in Spartanburg County, although this may be attributable to greater numbers of people seeking treatment as stigma has diminished.

HIV infection and AIDS cases are reportable in South Carolina by law. All physicians, hospitals, laboratories, administrators of health care facilities, charitable or penal institutions, etc., are required to report HIV infections and AIDS cases to SC DHEC with demographic identifiers.

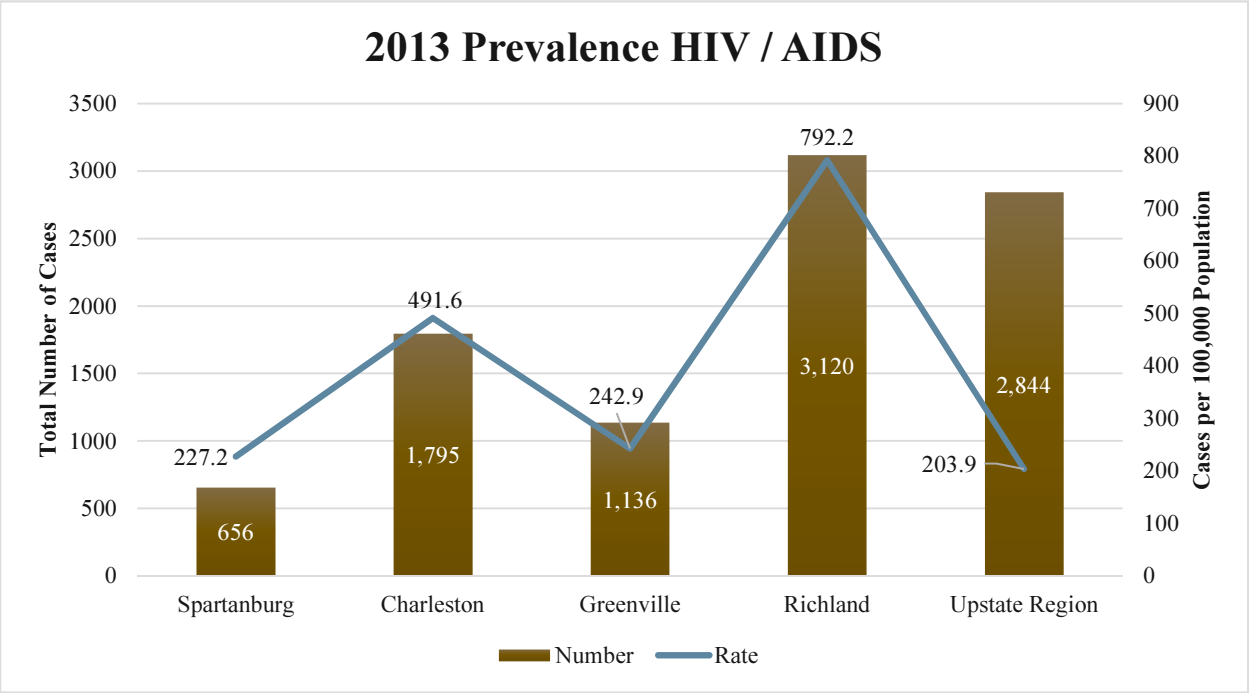
HIV/AIDS Cases Diagnosed and Rates* by Years of Diagnosis

	2002-2004		2005-2007		2008-2010		2011-2013	
	#	Rate	#	Rate	#	Rate	#	Rate
Spartanburg	68	8.7	108	13.5	107	12.7	108	12.6
Charleston	242	25.5	206	20.8	249	23.8	257	23.9
Greenville	185	15.8	181	14.8	171	13	178	12.9
Richland	533	54.1	416	40.7	425	38.9	376	32.2
Upstate Region	413	10.9	469	12.1	429	10.6	440	10.6

Data Source: SC DHEC
**rates per 100,000 population*

The graph below illustrates the number of existing cases (prevalence) and the rate of existing cases (prevalence rate) per 100,000 population for 2013 of HIV/AIDS by peer county and for the aggregate 11 county Upstate region. Compared to peer counties, Spartanburg County has the lowest

prevalence of HIV/AIDS cases and the lowest rate of existing cases. Spartanburg and its peer counties have higher prevalence rates than the Upstate Region in the aggregate, however.



Data Source: SC DHEC

The current prevalence for HIV/AIDS is greater among males and blacks/African-Americans in Spartanburg County:

HIV/AIDS 2013 Spartanburg County Prevalence, Numbers and Rates*, by Gender, Race, and Ethnicity

	#	Rate
Gender		
Male	466	332.9
Female	190	127.7
Race / Ethnicity		
White	230	113.4
Black	398	653.4
Hispanic	21	118.4
Race / Gender		
White Male	193	195.7
White Female	37	35.5
Black/African-American Male	251	887.6
Black/African-American Female	147	450.5

Data Source: SC DHEC
**Rates per 100,000 population*

In 2014, five Spartanburg County residents died of AIDS. From 2010-2014, 31 residents died of AIDS.

Chlamydia

Chlamydia is the most common bacterial Sexually Transmitted Infection (STI) in North America and, as such, is a good indicator of the general prevalence of STIs. Trend data for chlamydia should be interpreted with caution as any observed changes in incidence of reported infections may be a result of several factors, including testing policies in clinics and types of tests being used as well as true changes in disease rates.

The chlamydia rate per 100,000 Spartanburg County residents is consistently lower than the state average and typically lower than peer county rates. The SC Campaign to Prevent Teen Pregnancy reports that 432 cases of chlamydia among teens age 15-19 were reported in Spartanburg in 2014. This equates to a rate of 2,162.8 per 100,000 which is significantly higher than the overall rate for Spartanburg County. On this measure, Spartanburg teens rank 30th among teens in the 46 counties across the state.

Chlamydia Cases and Annual Rate* by County

	2012		2013		2014	
	#	Rate	#	Rate	#	Rate
Spartanburg	1,574	545.1	1,490	512.1	1,477	507.6
Greenville	1,938	414.5	1,916	404.0	2,426	511.5
Richland	3,104	788.2	2,844	712.3	3,216	805.5
Charleston	2,516	689.0	2,602	698.0	2,807	752.9
SC total	27,054	572.7	26,058	545.7	27,130	568.2

Data Source: SC DHEC STD/HIV/AIDS Data Surveillance Report
**Rates per 100,000 population*

Gonorrhea

Gonorrhea is an STI that can infect both men and women. Caused by a bacterium that can grow and multiply easily in mucus membranes of the body, it is a very common infectious disease. Although gonorrhea is curable, it is becoming harder to treat as drug-resistant strains are developing. Each year, according to the CDC, there are as many as 700,000 new cases of gonorrhea in the US, with fewer than half of them reported to the CDC. There were 334,826 reported cases of gonorrhea in the US in 2012. Sexually active teenagers have one of the highest rates of reported infections. In fact, the SC Campaign to Prevent Teen Pregnancy reports that 104 cases of gonorrhea among teens age 15-19 were reported in Spartanburg in 2014. This equates to a rate of 520.7 per 100,000 which is significantly higher than the overall rate for Spartanburg County. On this measure, Spartanburg teens rank 28th among teens in the 46 counties across the state.

Overall reported rates of gonorrhea are lower in Spartanburg County than in peer counties and lower than the state average, although trend data should be interpreted with caution as any observed changes in incidence of reported infections may be a result of several factors, including testing policies in clinics and types of tests being used, as well as true changes in disease rates.

Gonorrhea Cases and Annual Rate* by County						
	2012		**2013**		**2014**	
	#	**Rate**	**#**	**Rate**	**#**	**Rate**
Spartanburg	431	149.3	415	142.6	479	164.6
Greenville	711	152.1	702	148.0	812	171.2
Richland	880	223.4	752	188.4	902	225.9
Charleston	731	200.2	773	207.3	842	225.9
SC Total	**7,601**	**160.9**	**7,309**	**153.1**	**7,954**	**166.6**

Data Source: SC DHEC STD/HIV/AIDS Data Surveillance Report
**Rates per 100,000 population*

Syphilis

Syphilis, an STI caused by a bacterium, was a major public health threat until the advent of penicillin in the late 1940s. The signs and symptoms of syphilis vary depending on which of its four stages symptoms present. Left untreated, it causes serious long-term health problems such as arthritis, brain damage, and blindness. Although most commonly spread through sexual activity, it may also be transmitted from mother to baby during pregnancy or at birth, resulting in congenital syphilis. Up to 40% of babies born to women with untreated syphilis may be stillborn or die from the infection as a newborn.

According to the CDC, the rate of new cases of syphilis had plummeted in the 1990s and in the year 2000 it reached an all-time low since reporting began in 1941. However, new cases of syphilis almost doubled between 2005 and 2013 from 8,724 to 16,663. Syphilis is often co-occurring with HIV. In 2013, the US prevalence of syphilis was about 315,000 cases. During 2010, it caused about 113,000 deaths, down from 202,000 in 1990. After a steady decline from 2008-2012, data show a sharp increase in congenital syphilis rates. In 2014, the number of congenital syphilis cases was the highest it has been since 2001.

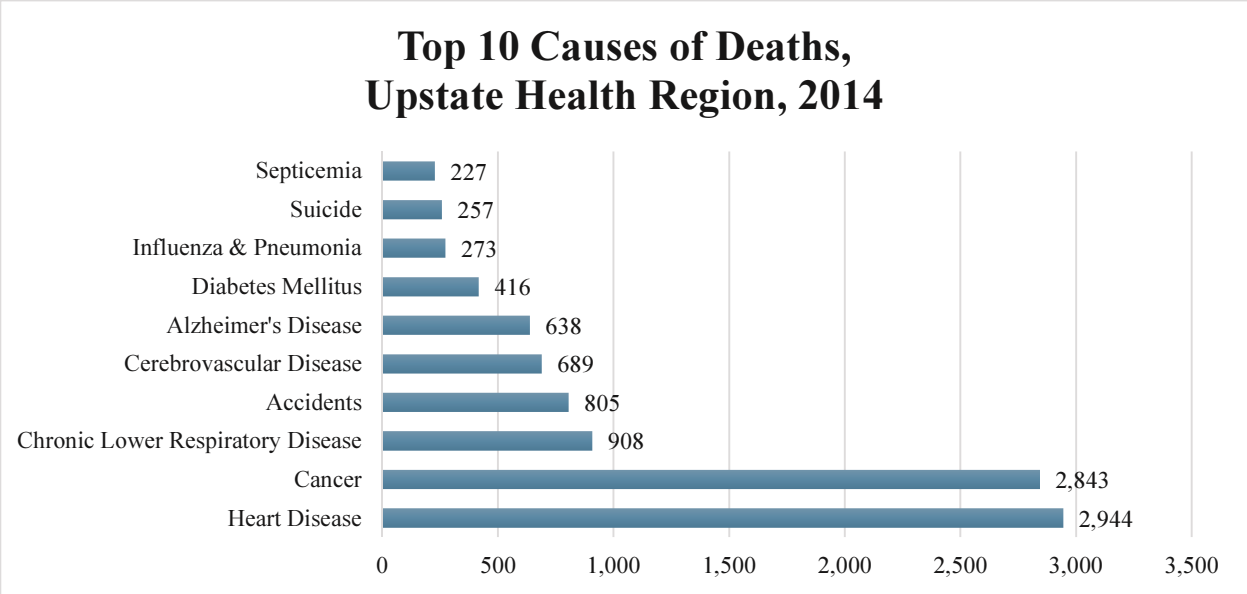
By 2014, the overall reported rate of syphilis in Spartanburg County was lower than the state average and lower than peer county rates, although trends are mixed. Trend data should be interpreted with caution as any observed changes in incidence of reported infections may be a result of several factors including testing policies in clinics and types of tests being used as well as true changes in disease rates.

Syphilis Cases and Annual Rate* by County						
	2012		**2013**		**2014**	
	#	Rate	#	Rate	#	Rate
Spartanburg	45	15.6	49	16.8	40	13.7
Greenville	49	10.5	88	18.6	91	19.2
Richland	132	33.5	143	35.8	180	45.1
Charleston	58	15.9	69	18.5	91	24.4
SC total	606	12.8	753	15.8	775	16.2

Data Source: SC DHEC STD/HIV/AIDS Data Surveillance Report
**Rates per 100,000 population*

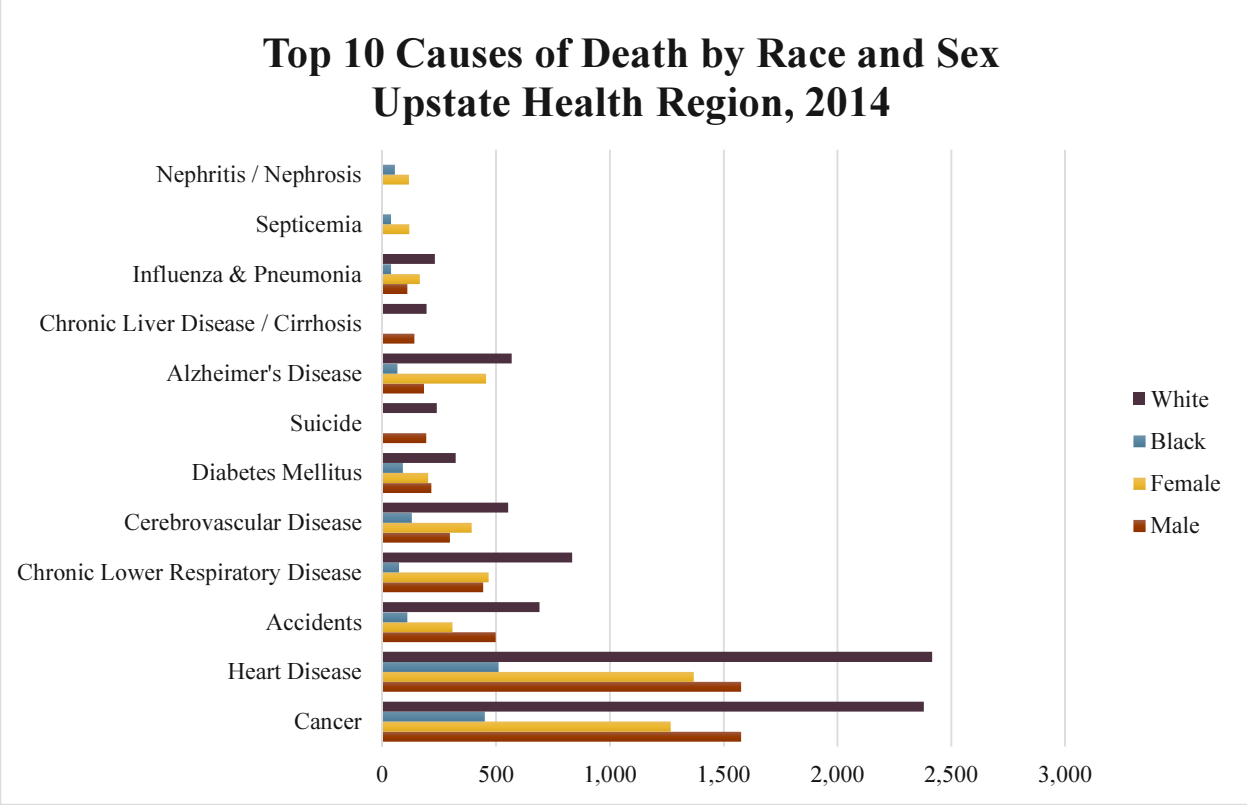
Leading Causes of Death

In the Upstate Health Region of South Carolina (Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Union, and Spartanburg counties), heart disease is the leading cause of death, followed closely by cancer.



Data Source: SC DHEC

By gender and race, the leading causes of death have some variation.



Data Source: SC DHEC

Health Disparities and Inequities

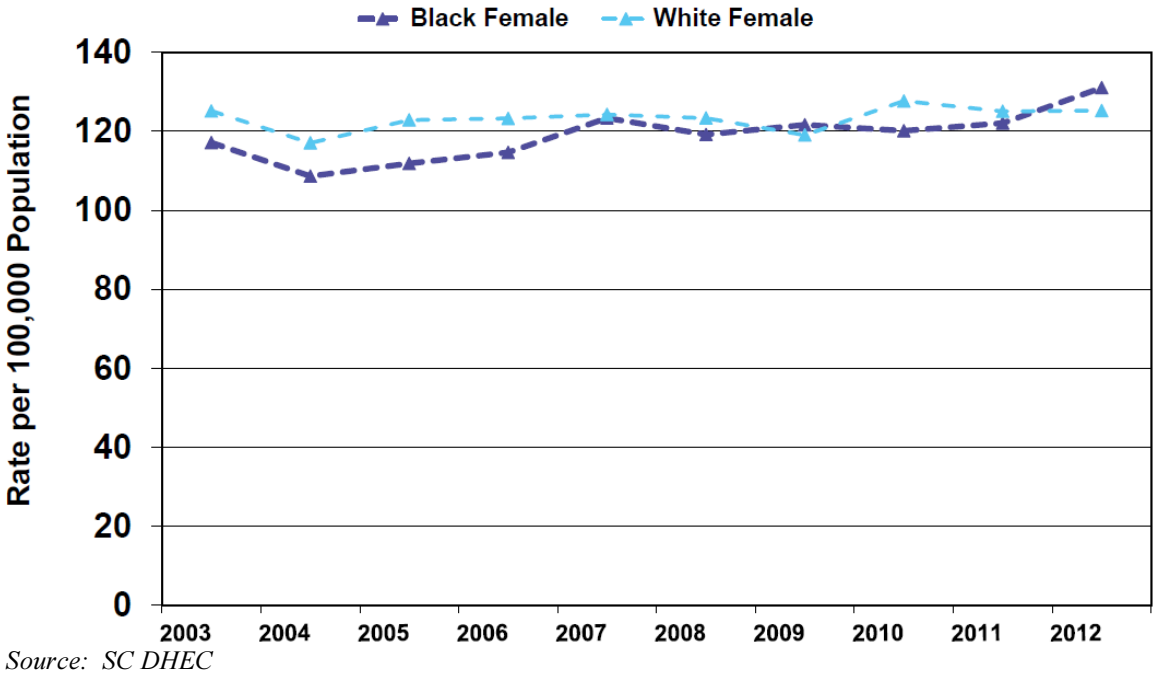
The terms "disparity" and "inequity" are often used interchangeably when describing incongruent health outcomes. However, a **disparity** is a measurable difference in the incidence, prevalence, mortality, or burden of disease or health condition that exists among specific population groups which may result from differences in race/ethnicity, geography, gender, age, or socioeconomic status. An **inequity** is the presence of systematic and potentially remediable differences among population groups defined socially, economically, or geographically. Inequities are often the cause of disparity. Inequity is built into systems and can be horizontal or vertical. **Horizontal inequity** indicates that people with the same needs do not have access to the same resources. **Vertical inequity** exists when people with greater needs are not provided with greater resources.

In South Carolina, minorities bear a greater burden of many diseases including diabetes, cardiovascular disease, HIV/AIDS, and certain types of cancer. Minorities are more likely to contract these diseases and minorities die at higher rates from these diseases than whites. For example, in South Carolina African American infants are more than twice as likely as white babies to die before their first birthday and 75% of newly diagnosed HIV/AIDS cases are in African Americans.

The following graphs illustrate some additional health disparities by race in South Carolina. This is by no means an exhaustive list of disparities, however.

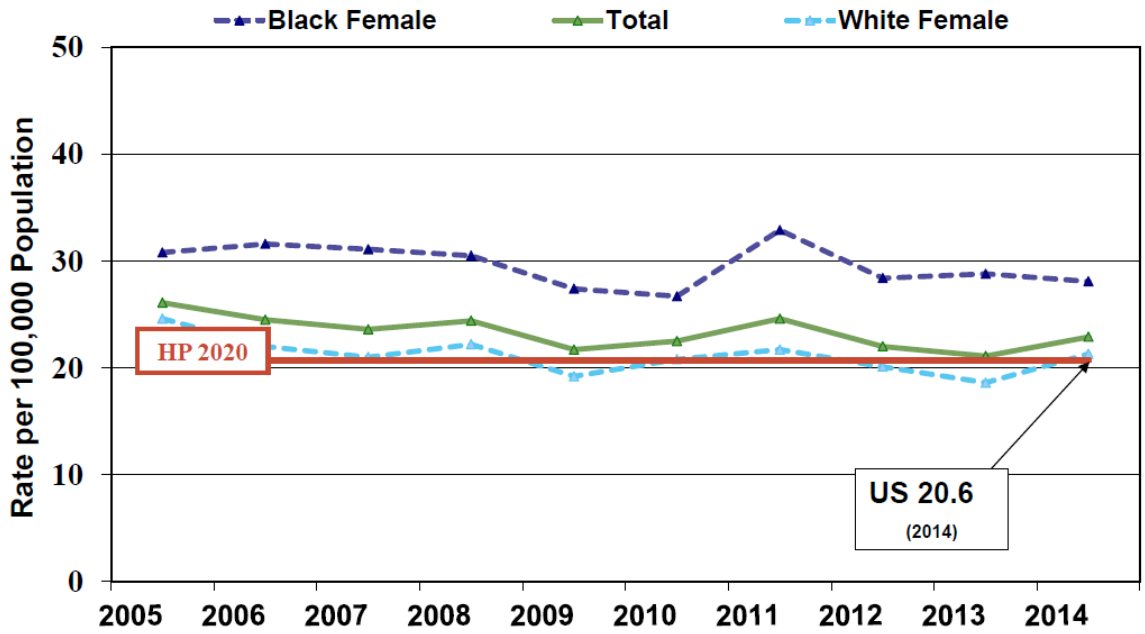
Although the number of female breast cancer cases in South Carolina is higher for whites, minority women are more likely to die of the disease.

SC Breast Cancer Incidence Rates



Source: SC DHEC

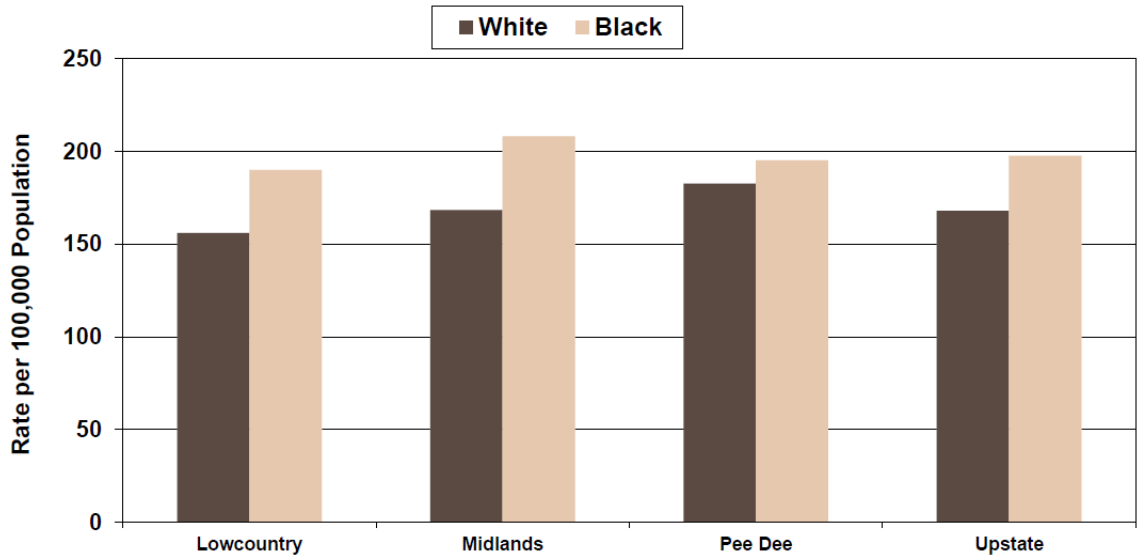
SC Breast Cancer Death Rates



Source: SC DHEC

In fact, cancer death rates overall are higher for blacks/African-Americans across the state.

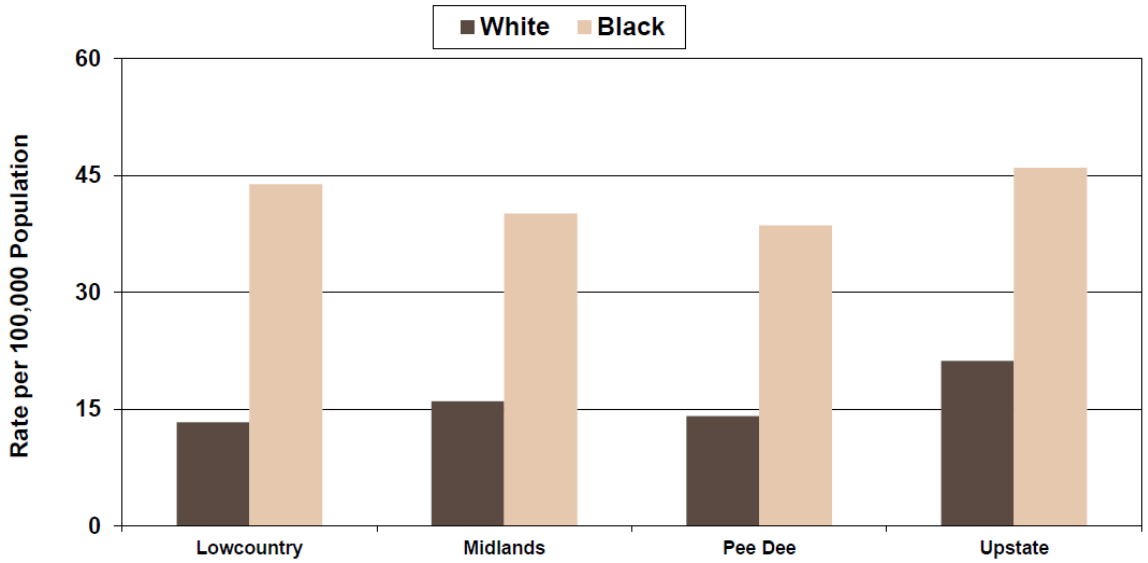
Cancer Death Rates, 2012-2014 by Race and Health Region, South Carolina



Source: SC DHEC

In South Carolina, blacks/African-Americans have a higher incidence of, complications of, and death rates due to diabetes than whites. In fact, black/African-American men are nearly twice as likely as white men to die of diabetes.

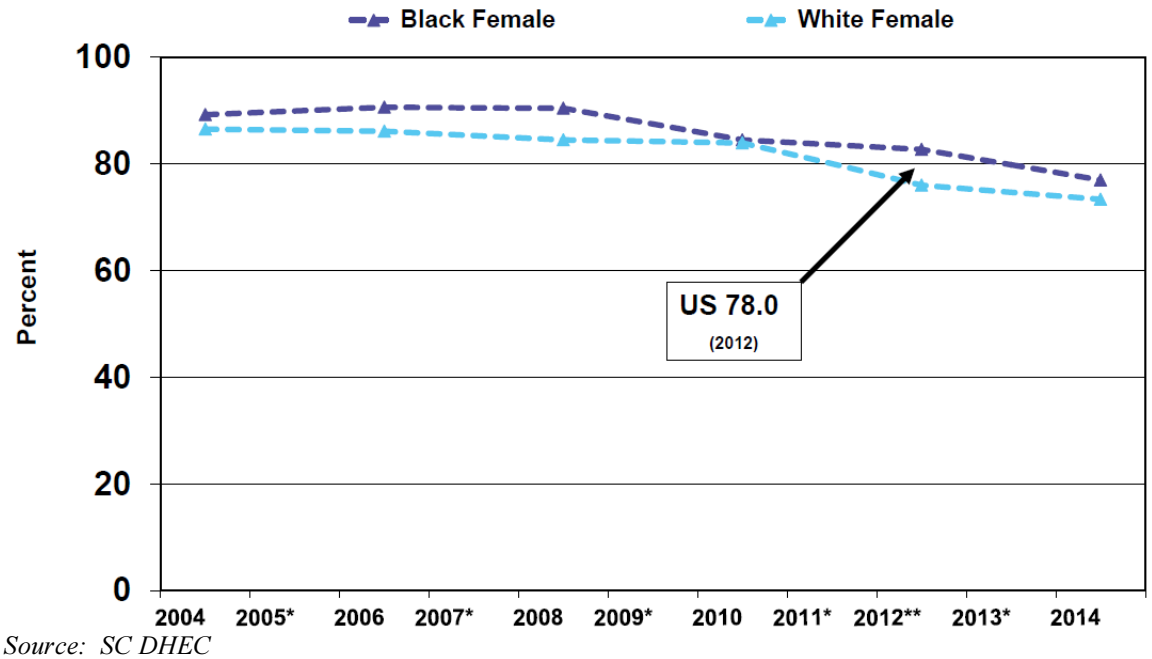
Diabetes Death Rates, 2012-2014 by Race and Health Region, South Carolina



Source: SC DHEC

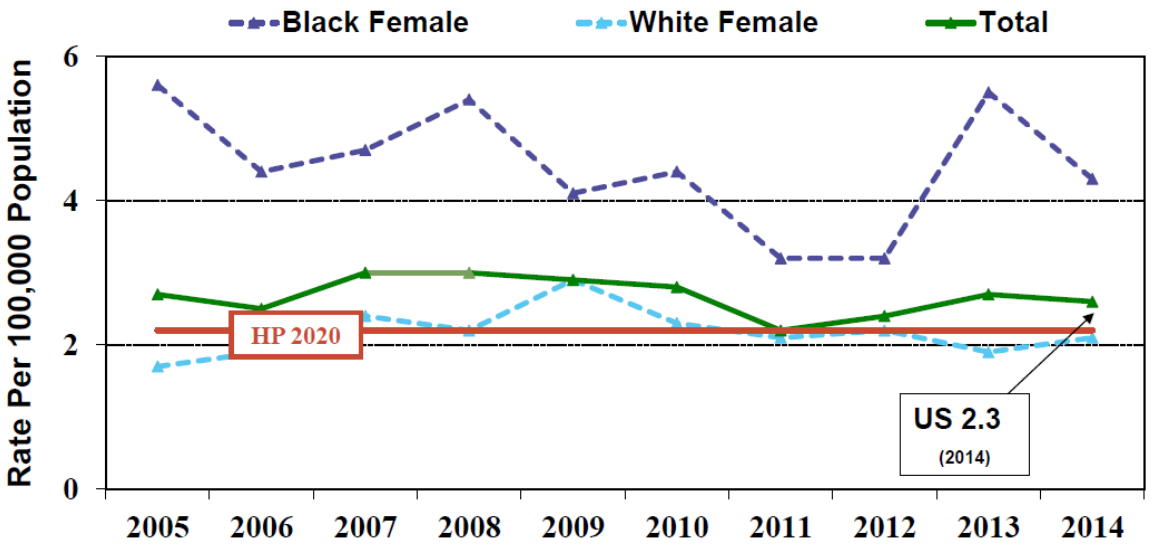
Black/African-American females are more than twice as likely to die of cervical cancer as white females, even though PAP screening rates are essentially equal for black/African-American and white women.

Incidence of PAP Screening Past Three Years, South Carolina, Women Age 18+



Source: SC DHEC

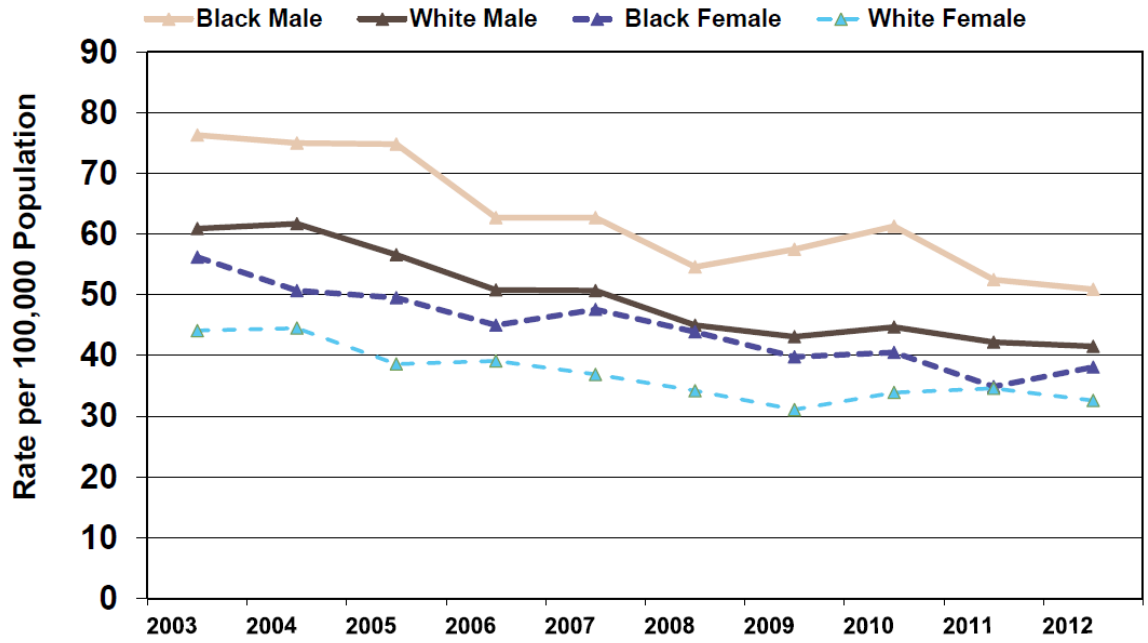
Cervical Cancer Death Rates, South Carolina



Source: SC DHEC

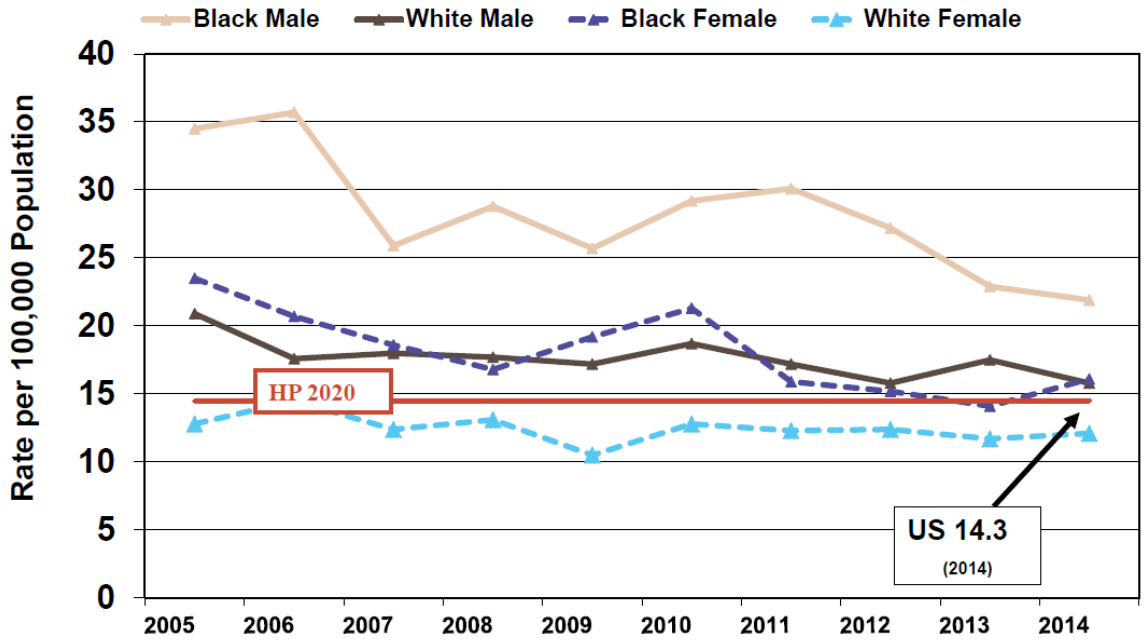
Males have higher rates of colorectal cancer than females and blacks/African-Americans have higher rates than whites. Black/African-American males have substantially higher rates of death from colorectal cancer and black/African-American females die of colorectal cancer at rates higher than white males, even though their incidence is lower than white male incidence.

Colorectal Cancer Incidence Rates, South Carolina



Source: SC DHEC

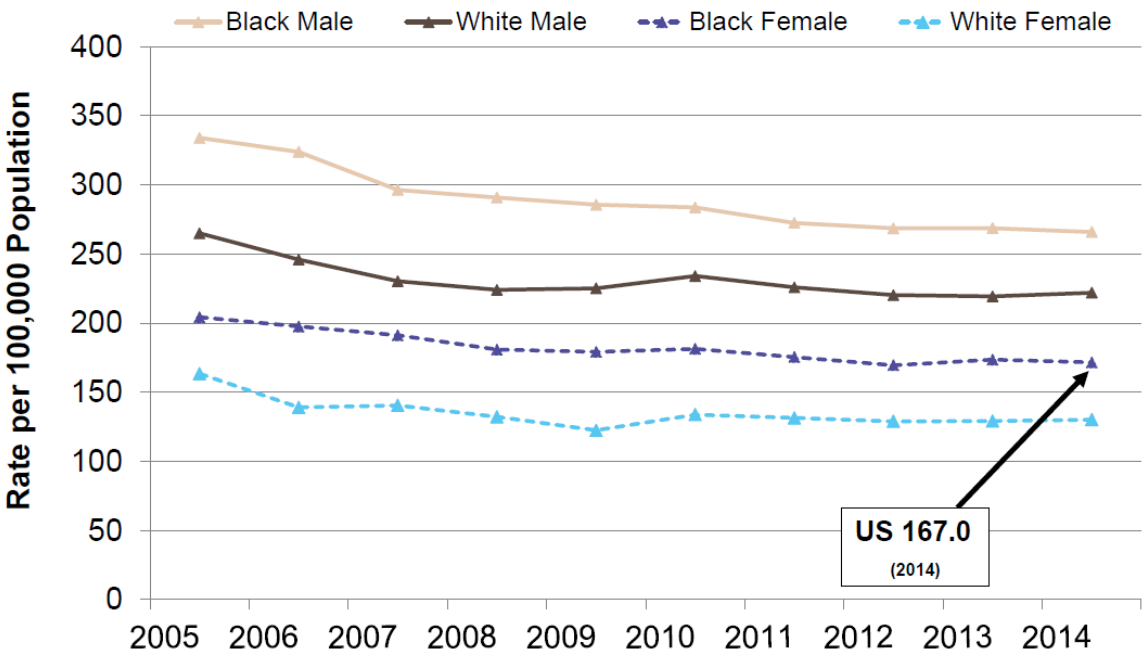
Colorectal Cancer Mortality Rates, South Carolina



Source: SC DHEC

In South Carolina, blacks/African-Americans are more likely than any other racial or ethnic group to die from heart disease.

Heart Disease Death Rates, South Carolina



Source: SC DHEC

Sources:

Centers for Disease Control and Prevention: http://www.cdc.gov/std/default.htm

Hands on Health South Carolina: http://www.handsonhealth-sc.org/page.php?id=960

HealthyPeople.gov: http://www.healthypeople.gov

Piedmont Care: http://www.piedmontcare.org/

SC Campaign to Prevent Teen Pregnancy: http://www.teenpregnancysc.org/

SC DHEC Child Fatalities Report: http://www.scdhec.gov/Health/docs/SC_Child_Fatlities_Report.pdf

SC DHEC, HIV/AIDS Cases and Rates, AIDS Cases and Rates By Year of Diagnosis, Gender, Race, Risk Group, and Age By County and Public Health Region, Updated for 2013
http://www.scdhec.gov/Health/docs/stdhiv/data/cntyrate_2013.pdf

SC DHEC (2014, December 31) South Carolina's STD/HIV/AIDS Data Surveillance Report
http://www.scdhec.gov/Health/docs/stdhiv/data/sr2014.pdf

SC DHEC, SC Public Health Statistics, Statewide Epidemiology Reports:
http://www.scdhec.gov/Health/SCPublicHealthStatisicsMaps/State-WideEpidemiologyReports/

SC DHEC SCAN Community Profiles: http://scangis.dhec.sc.gov/scan/CommunityProfile/output.aspx

Starfield, B. (2011). The hidden inequity in health care. International Journal for Equity in Health. 10:15.

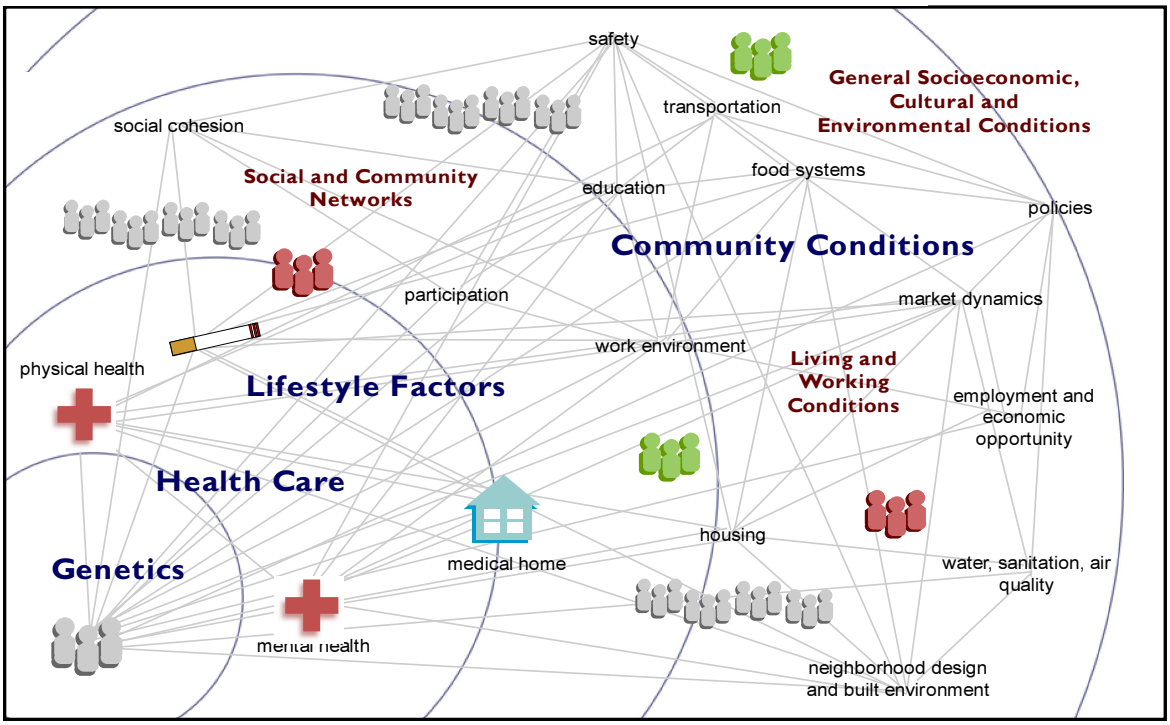
Crosscutting Indicators

Social Determinants of Health

Social determinants of health are those conditions related to an individual's environmental, social, and economic circumstances that directly impact health. Social determinants involve availability, access, understanding of, relevance of, and barriers to decisions and choices that influence health. Some of these include:

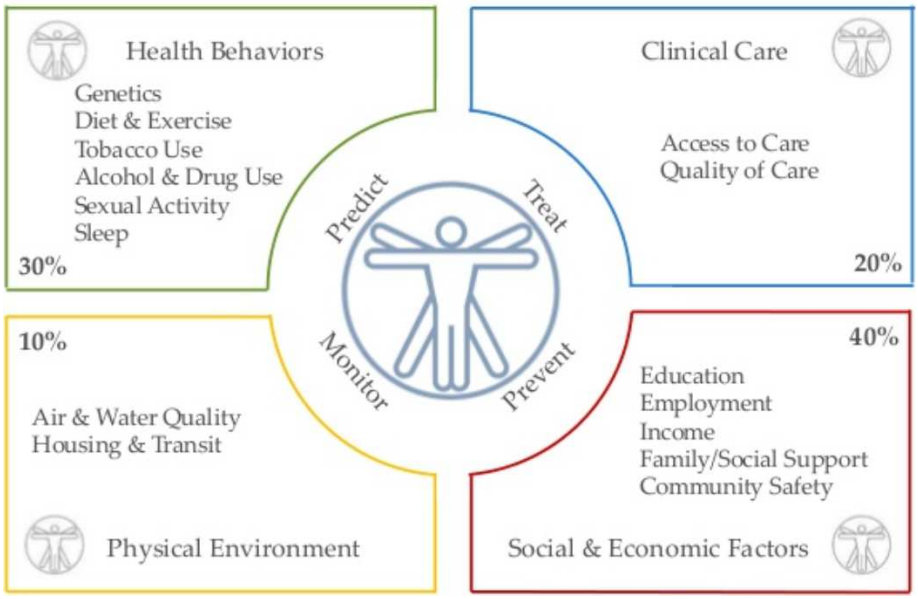
- Neighborhood safety
- Food security
- Income
- Distance to fresh food outlets and green spaces
- Health literacy
- Cultural context
- Availability of care
- Child maltreatment
- Employment
- Social support

Social determinants of health are the drivers of health inequity as those most at risk for poor health outcomes experience low income and poor living conditions. Since clinical care influences only approximately 20% of health outcomes, inequities will persist, despite increased numbers of providers and interventions, until social determinants of health are addressed. The following graphic illustrates the relative importance of socioeconomic, cultural, and environmental conditions on health.



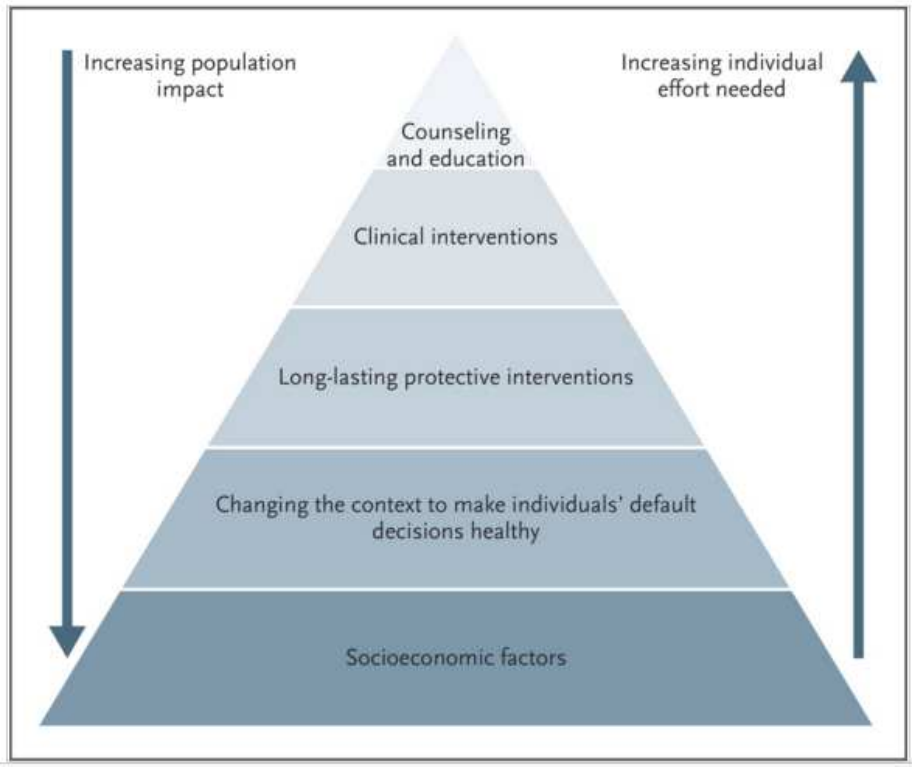
Source: HICCup

It has been estimated that 88% of health dollars go to clinical care despite the fact that it only impacts 20% of health outcomes. The future of the health ecosystem will focus on the true drivers of health outcomes, allowing the community to monitor, predict, prevent, and treat those variables that most impact health.



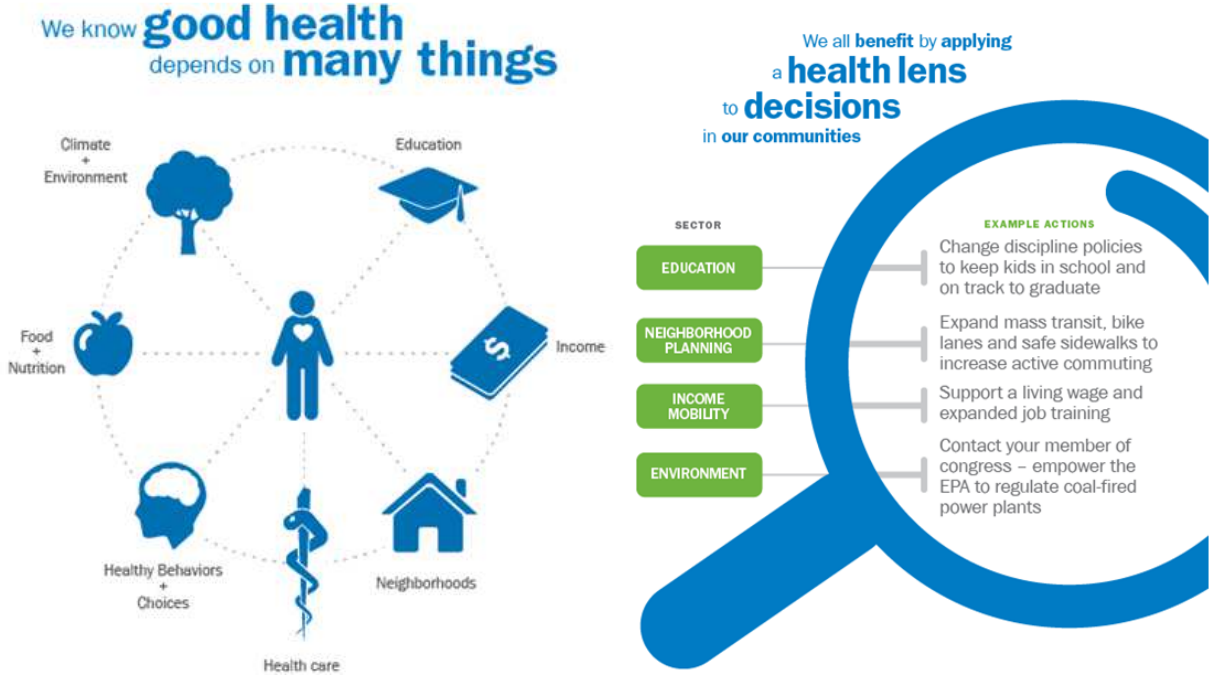
Source: Cascadia Capital

The Public Health Pyramid demonstrates that interventions at the pyramid's base generally improve health for more people, at lower unit cost, than those at the top, although it takes interventions at several levels of the pyramid to change health outcomes.



Source: TR Frieden, American Journal of Public Health

The American Public Health Association provides the following infographics to stress that social, environmental, and individual factors influence both health and the ability to make healthy choices - healthcare is only a small contributor to health and wellness. People live longer in countries that spend more on social programs that support health.



Source: American Public Health Association

Specific data on the status of social, environmental, and economic factors in Spartanburg County can be found in other Spartanburg Community Indicators Project publications on our website: www.strategicspartanburg.org on the Resources page.

Childhood Trauma and Maltreatment

Child maltreatment affects the health of children immediately and as adults. Children exposed to traumatic events and maltreatment are more likely to experience:

- Death from abuse
- Head trauma and the associated sequela such as cerebral palsy and blindness
- Improper brain development
- Impaired cognitive ability and socio-emotional skills
- Lower language development
- Obesity
- Anxiety

Adults who experienced childhood trauma are more likely to engage in unhealthy behaviors and have higher rates of chronic disease. Common health risks include:

- Smoking, alcohol, and drug abuse
- Obesity
- Heart disease
- Liver disease
- Autoimmune disease
- Interstitial cystitis
- Dementia
- High blood pressure
- Irritable bowel syndrome
- Fibromyalgia / chronic fatigue syndrome
- Other chronic pain conditions

Sources:

American Public Health Association: http://www.apha.org/

Cascadia Capital. Healthcare Industry Taxonomy for the Population Health Era: http://www.slideshare.net/dchase/healthcare-industry-taxonomy-for-the-population-health-era

Centers for Disease Control and Prevention, Division of Violence Prevention: http://www.cdc.gov/ViolencePrevention/childmaltreatment/consequences.html

Frieden, T.R. (2010, April). American Journal of Public Health. A framework for public health action: The health impact pyramid. 100(4) 590-595.

HICCup: http://hiccup.co/

APPENDIX I: National Health Metrics Models

Vital Signs

In April 2015, the Institute of Medicine (IOM) released *Vital Signs*, 15 core measures for assessing the nation's health. This proposed national agenda for health measurement is a streamlined set of metrics that mitigate measurement burden by focusing on priorities that matter most to health and healthcare.

With support from the Blue Shield of California Foundation, the California Healthcare Foundation, and the Robert Wood Johnson Foundation, the IOM convened a committee to identify core measures for health and healthcare. CEOs of five healthcare organizations helped design the metrics - the American Public Health Association, the National Governors Association, the Association of State and Territorial Health Officials, the American Medical Association, and the American Hospital Association. These organizations have pledged to support *Vital Signs* and to use it as a roadmap to achieve better health at lower cost. *Vital Signs* is organized around a four-domain framework - healthy people, care quality, lower cost, and engaged people. There are 15 standardized core metrics with priority measures under each as seen in the graphic below.

Core Measure Set with Related Priority Measures

1. Life expectancy
Infant mortality
Maternal mortality
Violence and injury mortality

2. Well-being
Multiple chronic conditions
Depression

3. Overweight and obesity
Activity levels
Healthy eating patterns

4. Addictive behavior
Tobacco use
Drug dependence/illicit use
Alcohol dependence/ misuse

5. Unintended pregnancy
Contraceptive use

6. Healthy communities
Childhood poverty rate
Childhood asthma
Air quality index
Drinking water quality index

7. Preventive services
Influenza immunization
Colorectal cancer screening
Breast cancer screening

8. Care access
Usual source of care
Delay of needed care

9. Patient safety
Wrong-site surgery
Pressure ulcers
Medication reconciliation

10. Evidence-based care
Cardiovascular risk reduction
Hypertension control
Diabetes control composite
Heart attack therapy protocol
Stroke therapy protocol
Unnecessary care composite

11. Care match with patient goals
Patient experience
Shared decision making
End-of-life/advanced care planning

12. Personal spending burden
Health care-related bankruptcies

13. Population spending burden
Total cost of care
Health care spending growth

14. Individual engagement
Involvement in health initiatives

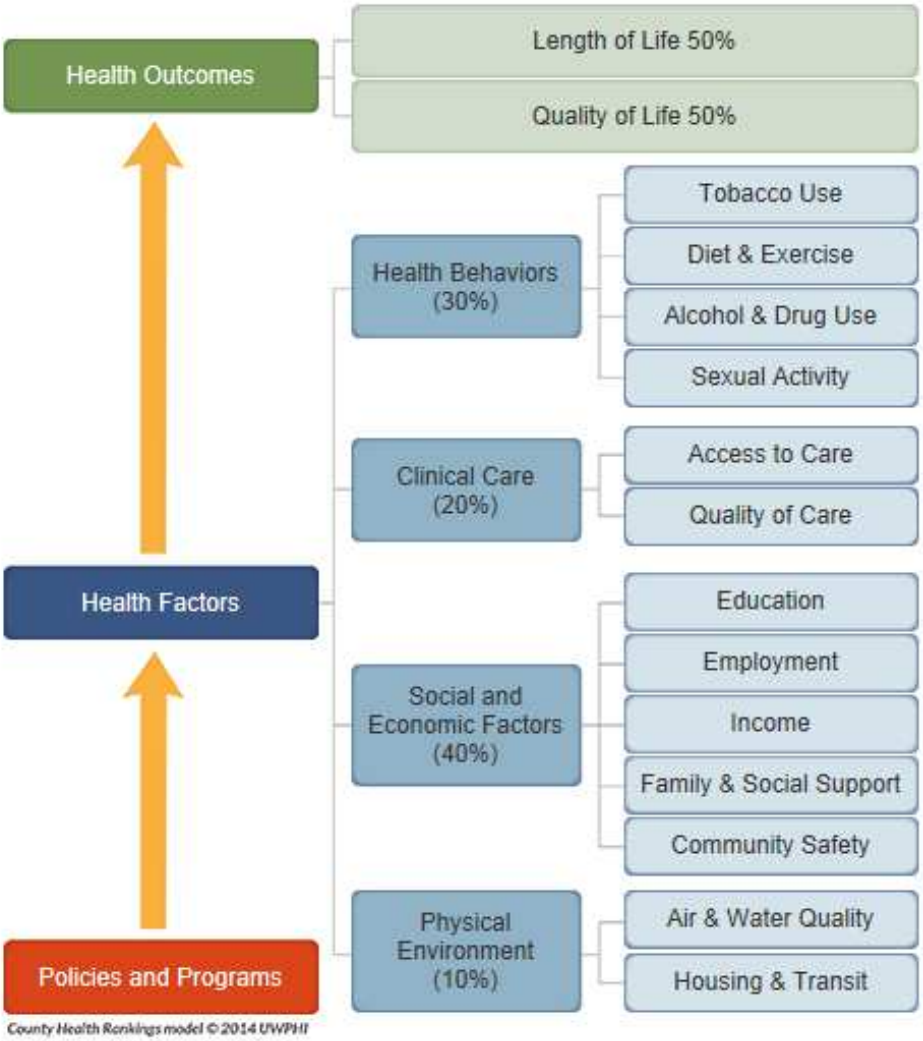
15. Community engagement
Availability of healthy food
Walkability
Community health benefit agenda

Source: Institute of Medicine

County Health Rankings and Roadmaps

The *County Health Rankings & Roadmaps* program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. The annual *County Health Rankings* measures vital health factors including high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income, and teen births in nearly every county in America. The Health Rankings Model demonstrates the weight of health behaviors, clinical care, social and economic factors, and the physical environment on health outcomes. Data are provided in each of these domains for various factors that influence health.

Health Rankings Model



Source: County Health Rankings and Roadmaps

Local data provide a snapshot of how health is influenced by where people live and provide a starting point for change in communities. The table below reports 2016 data. Of all South Carolina counties, Spartanburg County is among those showing the fastest improvements in overall health rankings, moving from 18th in 2014 to 17th in 2015 and 15th in 2016. However, rankings on Health Factors worsened from 10th in 2015 to 16th in 2016.

Health Rankings Snapshot, Spartanburg County, 2016

	Spartanburg County	Error Margin	Top US Performers*	SC	Rank of 46 SC Counties
HEALTH OUTCOMES					17
Length of Life					11
Quality of Life					17
Poor or Fair Health	18%	18-18%	12%	17%	
Poor Physical Health Days	4.0	3.9-4.1	2.5	3.6	
Poor Mental Health Days	4.2	4.1-4.3	2.3	3.7	
Low Birth Weight	10%	9-10%	6%	10%	
HEALTH FACTORS					16
Health Behaviors					19
Adult Smoking	21%	20-22%	14%	19%	
Adult Obesity	29%	27-32%	25%	32%	
Food Environment Index	6.5		8.3	6.8	
Physical Inactivity	27%	25-29%	20%	25%	
Access to Exercise Opportunities	75%		91%	71%	
Excessive Drinking	14%	13-14%	12%	16%	
Alcohol-Impaired Driving Deaths	36%	33-40%	14%	40%	
Sexually Transmitted Infections	511.9		134.1	541.8	
Teen Births	48	46-49	19	43	
Clinical Care					23
Uninsured	20%	18-21%	11%	19%	
Primary Care Physicians	1,490:1		1,040:1	1,500:1	
Dentists	2,070:1		1,340:1	1,950:1	
Mental Health Providers	1,110:1		370:1	650:1	
Preventable Hospital Stays	59	56-62	38	50	
Diabetic Monitoring	88%	85-91%	90%	86%	
Mammography Screening	66%	62-69%	71%	67%	
Social and Economic Factors					11
High School Graduation	82%		93%	78%	
Some College	58%	56-60%	72%	61%	
Unemployment	6.3%		3.5%	6.4%	
Children in Poverty	27%	23-31%	13%	26%	
Income Inequality	4.7	4.5-4.9	3.7	4.9	
Children in Single-Parent Homes	38%	35-41%	21%	40%	
Social Associations	13.5		22.1	12.0	
Violent Crime	484		59	577	
Injury Deaths	72	68-76	51	71	
Physical Environment					41
Air Pollution / Particulate Matter	12.9		9.5	12.6	
Drinking Water Violations	Yes		No		
Severe Housing Problems	14%	13-15%	9%	16%	
Driving Alone to Work	85%	84-86%	71%	83%	
Long Commute / Driving Alone	26%	25-28%	15%	32%	

Data Source: County Health Rankings and Roadmaps
**Ranked in the 90th percentile*

Centers for Disease Control and Prevention, Community Health Status Indicators

The CDC's Community Health Status Indicators (CHSI) 2015 is an online web application that produces health status profiles for each of the 3,143 counties in the US and the District of Columbia. Each county profile contains indicators of health outcomes (mortality and morbidity); indicators on factors selected based on evidence that they potentially have an important influence on population health status (e.g., health care access and quality, health behaviors, social factors, physical environment); health outcome indicators stratified by subpopulations (e.g., race and ethnicity); important demographic characteristics; and *Healthy People 2020* targets. Users are able to compare the value of each indicator with those of demographically similar peer counties as well as to the US as a whole and to *Healthy People 2020* targets. CHSI 2015 was designed to complement other existing indicator applications including *Health Rankings and Roadmaps*.

Selection of peer counties is based on an iterative process guided by the advice of subject matter experts (internal and external to CDC) and based on demographic, income, poverty, education, and related variables. The following Summary Comparison Report shows how Spartanburg County compares with peer counties on the full set of 2015 CHSI Primary Indicators. Peer county values for each indicator are ranked and then divided into quartiles with indicators in the "Better" category (green circle) falling into the most favorable quartile compared to peers, indicators in the "Moderate" category (yellow diamond) falling into the middle two quartiles, and indicators in the "Worse" category (red square) falling into the most unfavorable quartile. Primary and associated indicators follow.

According to the 2015 CHSI model, Spartanburg County compares most favorably to peers on adult binge drinking, housing costs, housing stress, and living near highways. However, Spartanburg County compares worse than peers on many other primary and associated indicators.

Community Health Status Indicators 2015, Spartanburg County

	Better (most favorable quartile)	Moderate (middle two quartiles)	Worse (least favorable quartile)
Mortality		Cancer deaths Chronic kidney disease deaths Coronary heart disease deaths Diabetes deaths	Alzheimer's disease deaths Chronic lower respiratory disease (CLRD) deaths Female life expectancy Male life expectancy Motor vehicle deaths Stroke deaths Unintentional injury (including motor vehicle)
Morbidity		Adult obesity Alzheimer's diseases/dementia Cancer Gonorrhea HIV	Adult diabetes Adult overall health status Older adult asthma Older adult depression Preterm births Syphilis
Health Care Access and Quality		Older adult preventable hospitalizations	Cost barrier to care Primary care provider access Uninsured
Health Behaviors	Adult binge drinking	Adult female routine pap tests Adult smoking	Adult physical inactivity Teen Births
Social Factors	High housing costs	Children in single-parent households On time high school graduation Poverty Unemployment Violent crime	Inadequate social support
Physical Environment	Housing stress Living near highways	Annual average PM2.5 concentration	Access to parks Limited access to healthy food

Source: CDC 2015 CHSI

Gallup Healthways Well-Being Rankings

On February 23, 2016, Gallup Healthways released its 2015 *Community Well-Being Rankings and Access to Care* report. Findings are based on a telephone survey administered in 2014 and 2015 across the US and aggregated by Metropolitan Statistical Area (MSA) for MSAs with at least 300 completed interviews. (Spartanburg MSA is comprised of Spartanburg and Union counties). This special report, a collaboration between Gallup, Healthways and Health eVillages, presents insights gathered through the Gallup-Healthways Well-Being Index®, the most comprehensive measurement of health and well-being in the world.

Of the 196 MSAs reported, Spartanburg MSA ranked 167th overall, placing it in the 5th quintile. Five domains were measured:

- **Purpose**: Liking what you do each day and being motivated to achieve your goals
- **Social**: Having supportive relationships and love in your life
- **Financial**: Managing your economic life to reduce stress and increase security
- **Community**: Liking where you live, feeling safe, and having pride in your community
- **Physical**: Having good health and enough energy to get things done

Also measured were crucial variables relating to access to care such as the ability to afford food and basic healthcare services as well as easy access to medicine and health insurance coverage.

Sources:

Centers for Disease Control and Prevention, 2015 Community Health Status Indicators: http://wwwn.cdc.gov/CommunityHealth/profile/currentprofile/SC/Spartanburg/

County Health Rankings and Roadmaps: http://www.countyhealthrankings.org/about-project

Gallup Healthways (2016, February). 2015 Community Well-Being Rankings and Access to Care: http://info.healthways.com/hubfs/Well-Being_Index/Gallup-Healthways_State_of_American_Well-Being_2015_Community_Rankings_vFINAL.pdf?t=1457718243397

Institute of Medicine: http://iom.nationalacademies.org/Reports/2015/Vital-Signs-Core-Metrics.aspx

APPENDIX II: Spartanburg Health Collaborations

Spartanburg's Way to Wellville

In April 2014, the Health Initiative Coordinating Council (HICCup), a national nonprofit led by Esther Dyson, an "angel investor" in health who has been recognized by *Forbes* as one of the ten most influential women in the world in technology, announced the Way to Wellville Challenge. After an arduous application and vetting process, HICCup selected five communities with populations of 100,000 or less to participate in a five-year collaborative process to produce better health outcomes. Spartanburg was one of the communities selected because of its collaborations and successes that have demonstrated health impact. The other communities are Clatsop County, Oregon; Muskegon County, Michigan; Lake County, California; and Niagara Falls, New York. The five-year challenge began January 1, 2015.

The Way to Wellville is not a grant or funding opportunity, rather it is a promise to support and connect Wellville communities with various partners, opportunities, and investors to make the greatest impact in areas of greatest importance to the community's health and economic well-being. The Mary Black Foundation leads the Wellville effort along with the City of Spartanburg, Spartanburg Regional Health System, United Way of the Piedmont, a local health technology expert, and USC Upstate.

Each of the Wellville communities chose different focus areas. Spartanburg chose:

- Access to Care for the Uninsured
- Health for the Insured
- Obesity Prevention
- Kindergarten Readiness
- Community Pride

Taskforces are at work on innovations in these areas that will have high impact. Collaborations are being forged across sectors and partners from across the country are joining Spartanburg's efforts. Some of the early initiatives include:

- Providing an app called CareMessage to a cohort of 200 patients at AccessHealth Spartanburg to provide text reminders to these uninsured patients regarding doctor's appointments, self-care, and other diagnosis-specific information. This is expected to improve outcomes in this patient population and to allow greater staff efficiency.
- Conducting a feasibility analysis to see if social impact financing is possible to allow all children age 0-5 in the city limits to have access to high-quality early learning. Social impact financing is an innovative contracting and financing model that leverages philanthropic and private dollars to fund services up front, with a government or other entity paying after they generate results.
- Finding ways to provide access to healthy food and places to be physically active within a half-mile of all city residents' homes.
- Hiring a neighborhood engagement coordinator to work in five of the most underserved neighborhoods in the city to seek out their leaders and encourage residents' involvement.
- Finding ways to encourage those who are insured to take advantage of all of the benefits available to them (such as annual check-ups).

Georgia Health Policy Center: Bridging for Health

The Georgia Health Policy Center, a program of the Andrew Young School of Policy Studies at Georgia State University, is the national coordinating center for the Robert Wood Johnson Foundation's initiative, Bridging for Health. Spartanburg was chosen as one of four communities to participate in the program along with Pittsburgh, Pennsylvania; San Antonio, Texas; and Yamhill County, Oregon. These communities are recognized for pursuing innovations in policy, healthcare delivery, and financing mechanisms that improve outcomes and rebalance and align investments in health. The Bridging for Health initiative provides technical assistance, evaluation support, resources for convenings, core functions, or special projects, and opportunities for peer learning and exchange.

Robert Wood Johnson Foundation Culture of Health Prize

In 2015, Spartanburg County was one of eight communities (of 340 applicant communities nationally) to win the prestigious 2015 Robert Wood Johnson Foundation (RWJF) Culture of Health Prize. The prize honors communities for working on high impact health-related initiatives that promote health equity to ensure that everyone has the opportunity to live a longer, healthier, and more productive life.

Other 2015 winning communities are Bridgeport, Connecticut; Bronx, New York; Everett, Massachusetts; Kansas City, Missouri; Lawrence, Massachusetts; Menominee Nation in northeastern Wisconsin; and Waaswaaganing Anishinaabeg (Lac du Flambeau Tribe) in northern Wisconsin. The winners each received a $25,000 cash prize, ongoing technical assistance, connections with other successful programming, and the opportunity to inspire other communities in their own transformational journeys.

Spartanburg County was selected for the successes realized through the community's focus on data-driven decision making, collaborative partnerships, and collective impact, especially in teen pregnancy prevention, connecting low-income residents to medical homes, and providing wrap-around case management services that focus on the social determinants of health, and in revitalization of the Northside neighborhood. According to the RWJF:

> The Prize is awarded annually by the Robert Wood Johnson Foundation to honor communities that are working to build a Culture of Health and to elevate the compelling stories of local leaders and community members who are coming together to implement solutions that give everyone the opportunity for a healthier life. A Culture of Health recognizes that health and well-being are greatly influenced by where we live, how we work, the safety of our surroundings, and the strength and connectivity of our families and communities – and not just by what happens in the doctor's office. The Prize honors those communities that are committed not only to providing access to good quality care, but also to providing opportunities for better health by transforming our neighborhoods, schools, and businesses so that good health flourishes everywhere.

Road to Better Health

Established in 2008, Road to Better Health (RTBH), a coalition of providers and other stakeholders, has used data to prioritize local public health needs, to align influence and resources, and to plan and go about the work of public health most effectively. RTBH has proven that working collectively

and in partnership with the community is more impactful than working in silos when addressing community health challenges. Early data revealed in the Spartanburg Community Indicators Project report, *The Status of Public Health in Spartanburg County,* motivated the work of RTBH along with Spartanburg Regional Health System's non-profit hospital Strategic Imperative to Improve Community Health.

Some of the high impact initiatives established or supported by RTBH and funded through a combination of private and public resources are:

- Nurse Family Partnership, Birth Matters, SBIRT, and Long-Acting Reversible Contraception (LARC) Campaign for teenagers, which collectively contributed to a significant reduction in infant mortality and low birth weight in Spartanburg County.
- AccessHealth Spartanburg which provides navigation and care coordination services to low-income uninsured residents of Spartanburg County.
- Behavioral Health Taskforce, which, among other access issues, is addressing the disproportionate burden of behavioral health issues among detention center inmates.
- Northside Spartanburg Revitalization Project where neighbors, hospital, and other partners are collaborating to improve wellness through economic, environmental, and health interventions.

The Road to Better Health's Five Priority Areas & Goals 2013-2016

Improve Access to Care

- 5% reduction in number of emergency room discharges for ambulatory care sensitive conditions
- 5% reduction in number of hospital readmissions within 30 days
- 5% reduction in number of residents who report that they were unable to see a doctor sometime in the last 12 months because of costs
- 5% increase in number of uninsured residents that have a medical home

Reduce Childhood Obesity

- 3% reduction in childhood obesity among Spartanburg's 1st, 3rd, and 5th grade students

Improve Birth Outcomes

- 10% reduction in the birth rate for women age 15-19
- 3% reduction in the infant mortality rate
- 5% reduction in the number of pregnant women whose gestation was less than 39 weeks

Reduce Tobacco Use

- 3% reduction in the number of youth who regularly smoke
- 3% reduction in the sale of tobacco products to underage youth
- Facilitate at least 150 SC Tobacco Quitline fax referrals from AccessHealth Spartanburg
- Facilitate change through one new smoke free ordinance

Improve Behavioral Health Access

- 20% increase in the penetration rate for citizens to meet the national rate

Road to Better Health is assessing its priority areas and goals based on the results of this report's data. Potential new priority areas include Health Equity, Adult Oral Health, and Pediatric Asthma/Lead Exposure. Stakeholders will assure the effective and efficient use of community resources in areas of greatest need and impact. Final determinations for the appropriate groups and goals for the next three years of work are expected to be complete and in place for 2017.

Sources:

Georgia Health Policy Center: http://ghpc.gsu.edu/

Robert Wood Johnson Foundation, Culture of Health Prize: http://www.rwjf.org/en/library/collections/coh-prize-winners.html

Spartanburg Regional Health System (n.d.). Engaging Communities to Improve Health Outcomes: The role of Spartanburg Regional Healthcare System in the Road to Better Health: http://healthiersc.org/wp-content/uploads/2015/07/CaseStudy_Spartanburg.pdf

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Spartanburg County, SC

UPSTATE
University of South Carolina Upstate

Mary Black Foundation

Spartanburg Regional Foundation

SPARTANBURG
AREA CHAMBER of COMMERCE

VISION

Organizations and individuals across the public, private and non-profit sectors in Spartanburg County actively promote civic prosperity by utilizing the Community Indicators to inform and guide their progress

MISSION

To report on data and engage the community in dialogue and strategy that leads to positive change in Spartanburg County, South Carolina

INDICATOR AREAS & LEADERS

Civic Health
Spartanburg County Public Libraries

Cultural Vitality
Chapman Cultural Center

Economy
Spartanburg Area Chamber of Commerce

Education
Spartanburg Academic Movement

Natural Environment
Natural Environment Coalition

Public Health
Road to Better Health

Social Environment
Social Environment Coalition

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