



**Shriners Hospitals  
for Children®**  
Love to the rescue.™

## **2015 SHC Community Health Needs Assessment Report**

Shriners Hospitals for Children® — Greenville

Prepared by: SHC — Greenville Assessment Advisory Committee

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## Mission and Vision

### Mission

- Provide the highest quality care to children with neuromusculoskeletal conditions, burn injuries and other special healthcare needs within a compassionate, family-centered and collaborative care environment.
- Provide for the education of physicians and other healthcare professionals.
- Conduct research to discover new knowledge that improves the quality of care and quality of life of children and families.

\*\*\*This mission is carried out without regard to race, color, creed, sex or sect, disability, national origin or ability of a patient or family to pay.

### Vision

- Become the best at transforming children’s lives by providing exceptional healthcare through innovative research, in a patient and family centered environment.

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### Statement of Approval

The 2015 Community Health Needs Assessment (CHNA) Report for Shriners Hospitals for Children — was both reviewed and approved by the SHC — Greenville Board of Governors during their Monday, June 27, 2016 meeting.

## Our Commitment to the Community

Shriners Hospitals for Children — Greenville (SHC — Greenville) is honored to submit our 2015 Community Health Needs Assessment (CHNA) and Implementation Strategies to meet the requirements of Internal Revenue Code Section 501 (r). Our 2015 CHNA is intended to aid SHC — Greenville in better understanding the health needs affecting members of our community with the goal of fulfilling their immediate and future health needs.

This assessment has three main purposes:

1. Engage community members to gain an enhanced understanding of the top health issues affecting Greenville County, SC.
2. Prioritize the top community health needs (CHNs) identified from the surveys, focus group session, and supporting secondary data.
3. Develop an Implementation Plan to serve as a guide when addressing the high priority health needs.

### Introduction: Overview of Shriners Hospitals for Children

Shriners across the globe have dedicated their time, talent, and treasure to building a healthcare system of 22 specialty hospitals, which are devoted to improving the lives of children with orthopaedic, cleft lip and palate conditions, spinal cord injuries, and burns. Shriners Hospitals for Children® provides care to children up to the age of 18 years old, regardless of the family's ability to pay. Since our inception, more than one-million children have received specialty care in one of our family-centered facilities across North America, Canada, and Mexico.

Every day, Shriners Hospitals for Children® helps children overcome severe medical challenges; often improving their lives beyond what others thought possible. Additionally, Shriners Hospitals for Children® leads the way in medical research and physician education, which provides an overall body of medical knowledge for the care and treatment of a wide range of pediatric and young adult conditions worldwide. At Shriners Hospitals for Children® we believe in family-centered care. Here, the child and family are at the heart of our medical team. Every treatment we choose, every decision we make is geared toward giving a child the skills and abilities to live a healthy, productive life. Many techniques and treatments that are common in hospitals around the country today were pioneered at Shriners Hospitals for Children®.

## **About Shriners Hospitals for Children — Greenville**

Shriners Hospitals for Children® — Greenville is a 50 bed, pediatric orthopaedic hospital on the same campus as Greenville Health System, which is located in the center of Greenville, South Carolina. For more than 85 years Shriners Hospitals for Children® — Greenville's expert physicians, surgeons, and other medical staff have been committed to helping children with orthopaedic conditions live their lives to the fullest. We have special expertise in caring for children diagnosed with over 80 orthopaedic conditions.

## Process and Methods

### Purpose and Scope

As mentioned in our 2012 Community Health Needs Assessment, SHC — Greenville recognizes that our mission focuses on providing specialized care and developing programs to fully impact the well-being of residents within our community. For the 2015 CHNA Report, SHC — Greenville has defined our target community to include Greenville County, SC residents.

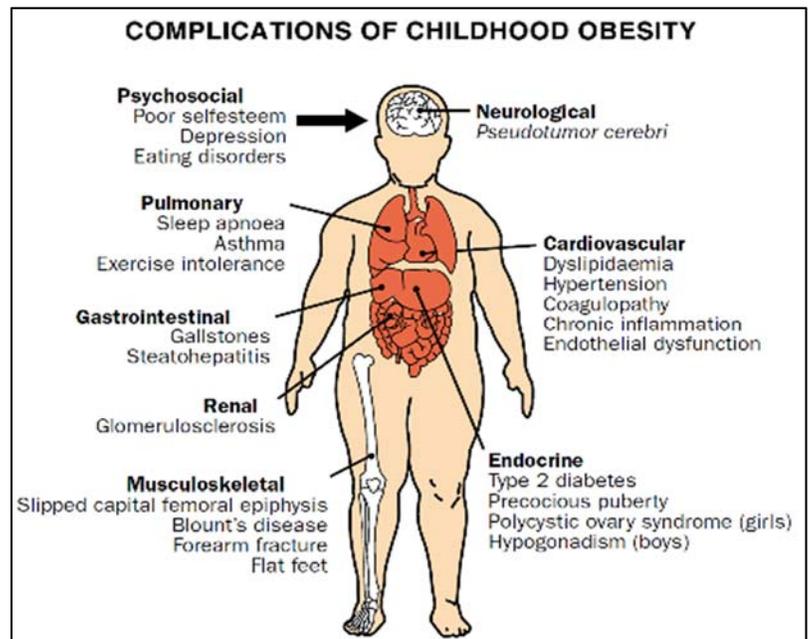
The task of conducting our 2015 CHNA was performed with representation from administration, performance improvement, risk management, public relations, and home office analysts. Initially, we reviewed the existing secondary data to gain a better understanding of the health disparities associated with our community. Next, we partnered with Greenville Health System (GHS) and Bon Secours St. Francis Health System to work with The Johnson Group to gather primary data from conducting a community survey and three focus group sessions that were held in Greenville County.

We determined that our goals in our 2015 CHNA process identify health needs that were consistent with the mission of Shriners Hospitals for Children® — Greenville, considered relevant, could be supported by existing community resources and initiatives, and within our available resources to make a positive impact. Monthly phone calls with Planning and Business Development from Home Office offered training for the entire SHC Healthcare System, templates, as well as the opportunity to ask pertinent questions and share experiences. Team leads from every SHC U.S. Hospital location were identified to maintain an open and transparent stream of communication.

Based on results from our literature review, community survey, focus groups, and SHC — Greenville's organizational goals, the workgroup concluded that the best course of action was to focus on the epidemic problem of childhood obesity.

## Secondary Data Collection & Analysis

Shriners Hospitals for Children® — Greenville utilized multiple sources of qualitative and quantitative data to identify, analyze, and prioritize the top health need(s) reflected in our selected community. An article review of available literature and empirical studies suggests that childhood obesity is a complex condition involving social, medical, ethical, and cultural issues. Qualitative approaches, such as interviews, surveys, and focus groups, can provide value in understanding this particular complexity.<sup>7</sup> Low-income preschool-aged children are at a greater risk of becoming obese.<sup>8</sup> In 2007, the CDC suggested that genetics, behavioral, and environmental factors play a significant role in influencing childhood obesity.<sup>9</sup> A child's home, daycare facility, public or private schools, and communities are all factors that influence behaviors related to food intake and physical activity, which all have an impact on childhood obesity.<sup>9</sup> According to the World Health Organization (WHO), the prevalence of obesity makes it a major public health concern – 500 million people are thought to be affected.<sup>26</sup> The consequences of childhood obesity can lead to neurological, orthopaedic, respiratory, endocrine, hepatic, cardiovascular health problems, as well as psychiatric issues.<sup>7</sup>



Source:

<http://www.healingisessential.com/child-obesity-wow/>

It is important to note that specific causes and consequences correlate to childhood obesity and must be understood with the support of an expert nutritionist, and the development of healthy eating habits. However, genetics, socio-economic and behavioral patterns could also likely lead to childhood obesity.<sup>20</sup> Nearly 30% of all children in the United States consume some form of fast food on a daily basis, every day of the year.<sup>20</sup> It is not surprising that children are more likely to become obese when the consumption of fast foods is projected at an incredibly high rate.<sup>20</sup>

The following data has been provided by the Community Commons reporting platform. Additionally, the data source that supports this reporting tool was supplied by the U.S. Census Bureau's American Community Survey (ACS): 2010-2014.

## Demographic Data – Greenville County, South Carolina

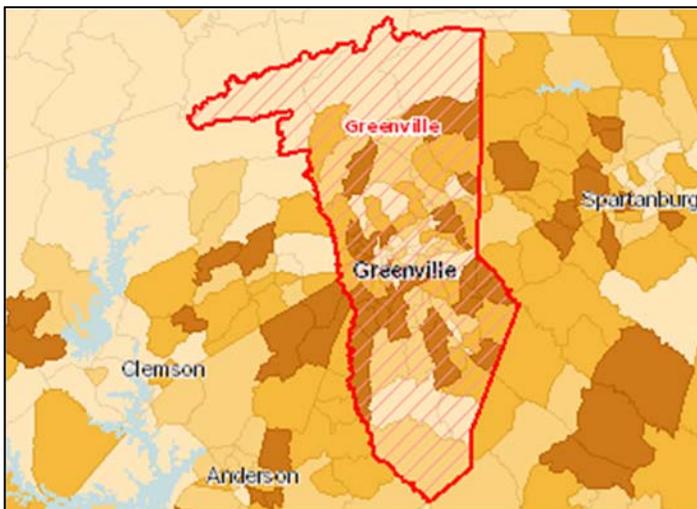
Current population demographics and changes in demographic composition over time play a determining role in the types of health and social services needed by communities.

### Population under Age 18

This indicator reports the percentage of population under age 18 in the designated geographic area. This indicator is relevant because it is important to understand the percentage of youth in the community, as this population has unique health needs which should be considered separately from other age groups.

Report Area	Total Population	Population Age 0-17	Percent Population Age 0-17
Greenville County Only	467,087	111,220	23.81%
South Carolina	4,727,273	1,080,028	22.85%
United States	314,107,072	73,777,656	23.49%

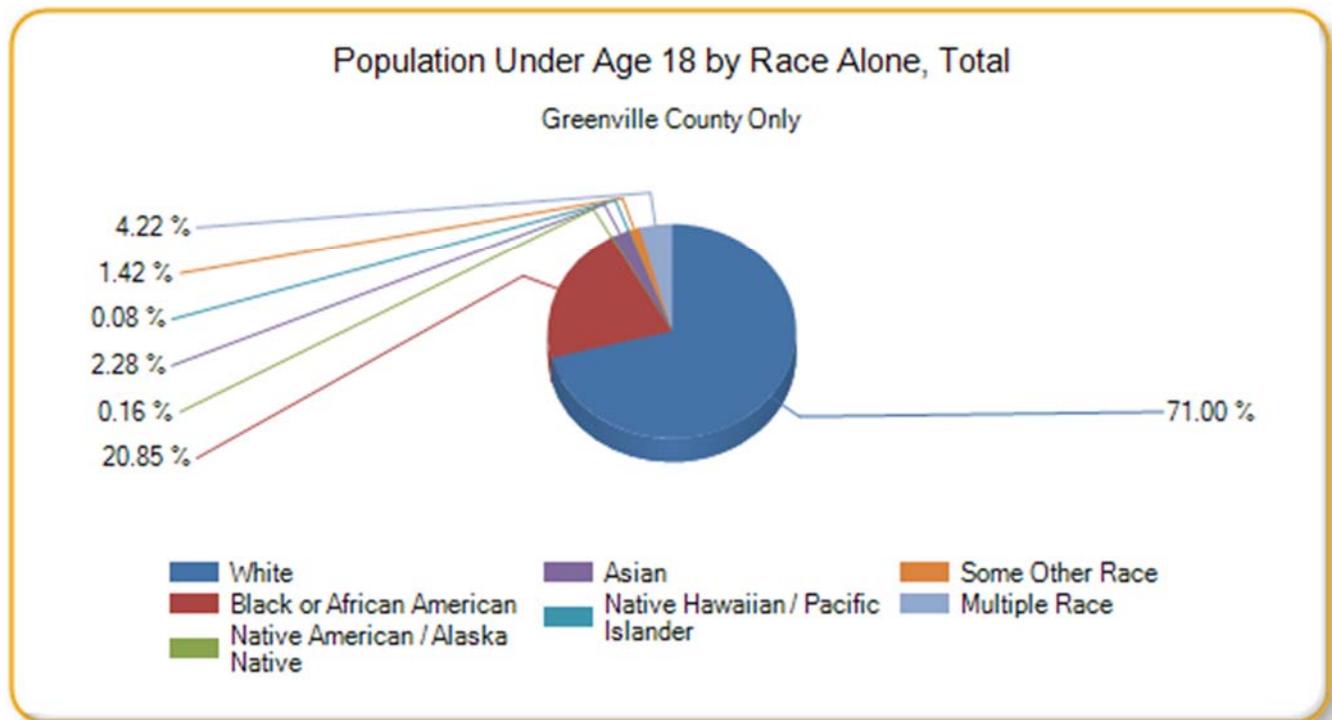
*Data Source: US Census Bureau, American Community Survey. 2010-2014. Source Geography: Tract*



**Population Age 0-17, Percent by Tract, ACS 2010-2014**

- Over 26.0%
- 23.1 - 26.0%
- 20.1 - 23.0%
- Under 20.1%
- No Data or Data Suppressed
- Report Area

**Population under Age 18 by Race Alone, Total**



Source: Community Commons, data extracted on March 31, 2016.

**Social Economic Factors**

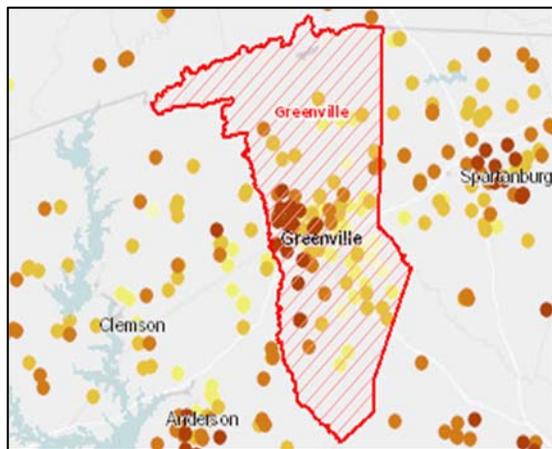
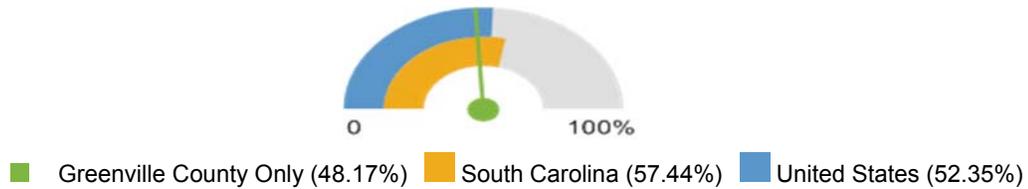
Economic and social insecurity often are associated with poor health. Poverty, unemployment, and lack of educational achievement affect access to care and a community’s ability to engage in healthy behaviors. Without a network of support and a safe community, families cannot thrive. Ensuring access to social and economic resources provides a foundation for a healthy community.

**Children Eligible for Free/Reduced Price Lunch**

Within the report area, 36,195 public school students or 48.17% are eligible for Free/Reduced-Price lunch out of 75,139 total students enrolled. This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs. Additionally, when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Report Area	Total Students	Number Free/Reduced Price Lunch Eligible	Percent Free/Reduced Price Lunch Eligible
Greenville County Only	75,139	36,195	48.17%
South Carolina	742,982	426,387	57.44%
United States	50,195,195	26,012,902	52.35%

**Percent Students Eligible for Free or Reduced Price Lunch**



**Students Eligible for Free or Reduced-Price Lunch, NCES CCD 2013-2014**

- Over 80.0%
- 60.1 - 80.0%
- 40.1 - 60.0%
- 20.1 - 40.0%
- Under 20.1%
- Not Reported
- Report Area

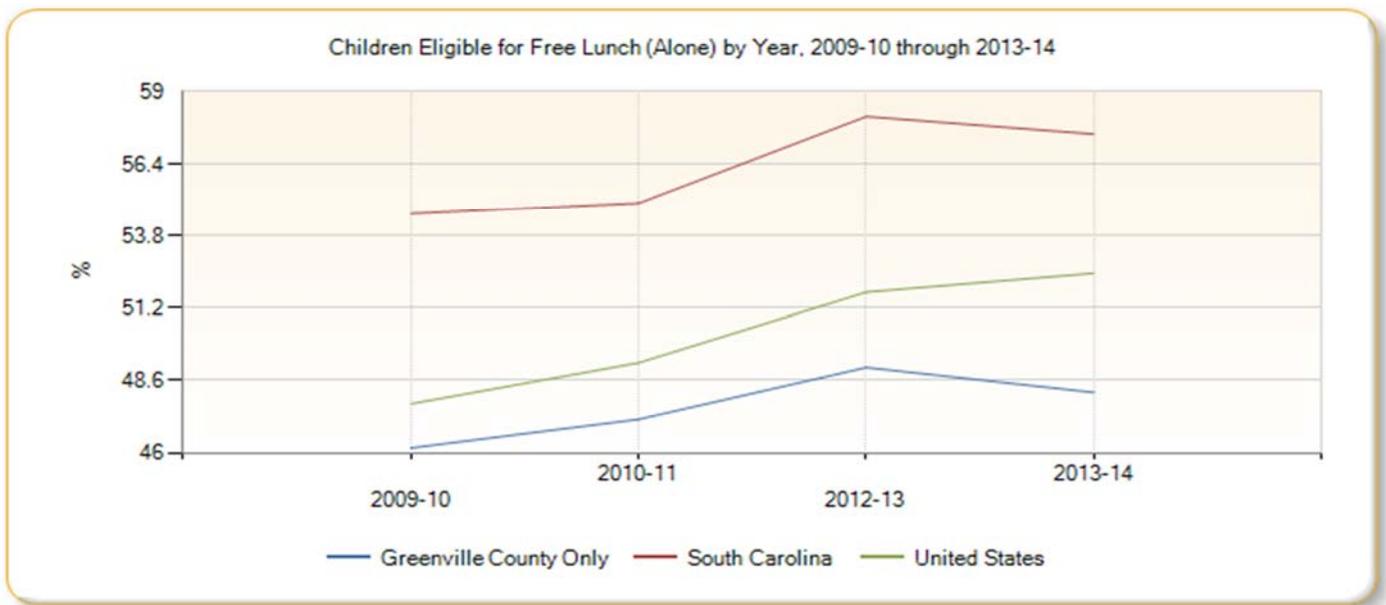
Data Source: National Center for Education Statistics, NCES - Common Core of Data. 2013-2014. Source Geography: Address

**Children Eligible for Free Lunch (Alone) by Year, 2009-2010 through 2013-2014**

The table below shows local, state, and National trends in student free and reduced lunch eligibility.

*Note: Data for the 2011-2012 school year are omitted due to lack of data for some states.*

Report Area	2009-2010	2010-2011	2012-2013	2013-2014
Greenville County Only	46.17%	47.2%	49.07%	48.17%
South Carolina	54.61%	55%	58.12%	57.49%
United States	47.76%	49.24%	51.77%	52.45%



Report prepared by Community Commons, extracted on March 31, 2016.

In 2006, the Institute of Medicine (IOM) provided recommendations for schools to help address childhood obesity.<sup>13</sup> A study conducted in 2008, as depicted in the table below, accounted for the probable program delivery cost associated with intervention programs geared towards addressing childhood obesity.<sup>16</sup>

**Program Delivery Costs of FitKid Intervention Program (Augusta, Georgia)**

Major Categories	Items	Quantity	Unit Costs (\$)	Total Costs (\$)
Personnel	Project Coordinator	80% of the coordinator's time	33,000 (salary and fringe benefits)	26,400
	Instructors	2314 person-days	36 per instructor per day	83,304
Training	Room, food, supplies			1786
	Instructors	469 person-hours*	12/hour	5628
Transportation	Buses	9	36.5/bus/day	42,066
	Administrators	2	1000/person	2000
Materials	Sports equipment			9950
	Books, printing, T-shirts			2936
Total costs				174,070

\*Note: Each school had more than 2 instructors trained. (Source: Wang, L. Y., et al., 2008, p. 624)

## Primary Data Collection & Analysis

The research was a collaborative effort involving Bon Secours Health System and Greenville Health System, each of which contributed qualitative and quantitative components.

The qualitative side of the research included three focus groups of Greenville County community leaders. Two of the groups consisted of representatives of community agencies that provide support services to at-risk citizens such as the elderly, low-income families, the uninsured, homeless and other vulnerable citizens. The third group was a larger gathering of neighborhood leaders and community advocates representing inner-city Greenville.

The quantitative research included two studies collected by telephone, internet and personal interviews, included a multi-faceted study. The study administered by Greenville Health System focused on personal health status and health habits.

## Health System Survey Findings

Greenville adults in the GHS study were asked to identify, based on their experiences, the greatest health concerns in their community. They could provide any number of answers. Here are their top 15 responses and the percentage of persons who voiced them:

### Top Health Concerns

1. Obesity (33%)
2. Cancer (32%)
3. Diabetes (20%)
4. Drug use (18%)
5. Alcohol use (17%)
6. Heart disease and stroke (16%)
7. Mental Health (14%)
8. Domestic violence (13%)
9. Tobacco use (13%)
10. Alzheimer's/Dementia (10%)
11. High blood pressure (11%)
12. Arthritis (5%)
13. HIV/AIDS/Sexually transmitted diseases (2%)
14. Suicide (2%)
15. Infant death (1%)

The importance of a few of these issues vary depending on demographic factors. For example:

- Cancer is a greater concern for those who earn less, with 45% of those earning between \$25,000 and \$50,000 citing it as their greatest issue.
- High blood pressure is more important to Black respondents (20%) than it is to Whites (10%).
- Obesity is more important to Whites (40%) than to Blacks (15%).
- Those with children in the home are also more likely to say obesity is a concern-41% compared to 29% of those without children.

Participants were encouraged to provide ideas about what Greenville hospitals could do to have the greatest impact on improving health in the community. Although 42% offered no ideas at all, most did offer suggestions. The list below ranks the most popular recommendations based on the percentages of persons voicing them.

#### **Where Local Hospitals Can have the Greatest Impact Improving the Health of the Community:**

1. Lower cost or free clinics (13%)
2. Community education and outreach (10%)
3. Preventative care (5%)
4. Free wellness programs or screenings (5%)
5. More urgent care (5%)
6. Financial assistance with insurance (4%)
7. Better emergency services (3%)
8. Healthy eating programs or weight control (3%)

## **Focus Group Findings**

Three focus groups were held in Greenville County, organized and hosted by Bon Secours Health System and Greenville Health System. Two of the groups consisted of representatives of social service and allied health organizations that provide community services, particularly to low-income, uninsured, homeless and other at-risk citizens. The third group was a larger gathering of neighborhood leaders and community advocates representing inner-city Greenville.

Similar to the findings of the quantitative research, the primary concerns of those in the focus groups focused more on social and cultural issues, rather than disease or health system performance.

Based on facilitated discussion and prioritization from all the three groups, the five priority issues for

#### **Greenville County are:**

1. Mental health care
2. Affordable housing
3. Obesity, including increased awareness and access to healthier foods
4. Access to health care
5. Transportation

## Correlation to Healthy People 2020

The Topic Areas of Healthy People 2020 identify and group objectives of related content, highlighting specific issues and populations. Every Topic Area is assigned to one or more lead agencies within the federal government that is responsible for developing, tracking, monitoring, and periodically reporting on objectives.<sup>25</sup> The secondary and primary (qualitative and quantitative) data that we collected and analyzed for this CHNA appeared to align with the following Healthy People 2020 Topic Areas: Social Determinants of Health, Adolescent Health, Nutrition and Weight Status, Physical Activity, and Health-Related Quality of Life and Well-Being.<sup>25</sup>

Although the findings of this assessment correlate to Healthy People 2020, the data that was gathered to complete this CHNA report has provided sufficient evidence for SHC — Greenville to vastly consider partnering with other organizations to collaboratively address the community health needs that SHC — Greenville is incapable of addressing, at this time.

For instance, *LiveWell Greenville* is a coalition that supports schools, neighborhoods, businesses and other areas of our community through resources, collaboration and evaluation to encourage a healthy lifestyle by influencing healthy eating behaviors and active daily routines.

## Prioritization Process

The primary and secondary data identified several Community Health Needs (CHNs) that affected our population in 2015. Shriners Hospitals for Children — Greenville prioritized the needs based on the ranking of each topic and our ability as a small, pediatric specialty hospital to address the needs identified from the survey and focus group results. Also, we analyzed the primary data provided from the collaborative survey and focus group results in order to pinpoint the specific health needs that SHC — Greenville could properly demonstrate a positive impact through available resources. Through our analysis, we have determined that it would be in the best interest of our community to focus our efforts on one of the areas of most concern identified: obesity; specifically, childhood obesity.

Also, SHC — Greenville may consider partnering with other organizations to collaboratively help address the previously mentioned community health needs or needs that SHC — Greenville is incapable of addressing.

## Greenville Health System Research Survey

Health Need	Capacity	Infrastructure	Partners	Investment	Focus	Priority
	Yes or No	Yes or No	Yes or No	Yes or No	Yes or No	High or Low
<b>Obesity</b>	Yes	Yes	Yes	Yes	Yes	High
<b>Cancer</b>	No	No	No	No	No	Low
<b>Diabetes</b>	No	No	No	No	No	Low
<b>Drug Use</b>	No	No	No	No	No	Low
<b>Alcohol Use</b>	No	No	No	No	No	Low
<b>Heart Disease/Stroke</b>	No	No	No	No	No	Low
<b>Mental Health</b>	No	No	No	No	No	Low
<b>Domestic Violence</b>	No	No	No	No	No	Low
<b>Tobacco Use</b>	No	No	No	No	No	Low
<b>Alzheimer's/Dementia</b>	No	No	No	No	No	Low
<b>High Blood Pressure</b>	No	No	No	No	No	Low
<b>Arthritis</b>	No	No	No	No	No	Low
<b>HIV/AIDS/STDs</b>	No	No	No	No	No	Low
<b>Suicide</b>	No	No	No	No	No	Low
<b>Sudden Infant Death</b>	No	No	No	No	No	Low

## Focus Group Findings

Health Need	Capacity	Infrastructure	Partners	Investment	Focus	Priority
	Yes or No	Yes or No	Yes or No	Yes or No	Yes or No	High or Low
Mental Health	No	No	No	No	No	Low
Affordable Housing	No	No	No	No	No	Low
Obesity*	Yes	Yes	Yes	Yes	Yes	High
Health Care Access	No	No	No	No	No	Low
Transportation	No	No	No	No	No	Low

**\*Including increased awareness and access to healthier foods**

### Column Definitions:

- *Organization Capacity – hospital can address the issue.*
- *Infrastructure – hospital has programs, systems, staff and support resources in place to address the issue.*
- *Partners – the hospital has established community partners (relationships) to address the issue.*
- *Investment – existing resources are committed to the issue.*
- *Focus Area – the hospital has acknowledged competencies and expertise to address the issue and the issue fits into the scope of service.*
- *High/Low Priority – how the hospital rates the findings.*

## Action Plan

### 2012 Community Health Needs Assessment

In 2012, Shriners Hospitals for Children — Greenville developed the final action plan with our CHNA workgroup after taking into consideration the local initiatives, which were already in place through the Greenville Forward partnership and two other hospital systems, Greenville Health System and Bon Secours St. Francis Health System. The plan was designed to progress over a three-year timeframe, which was reviewed by hospital leadership. Based on this review, the original initiatives were modified to better meet the needs of the community.

Shriners Hospitals for Children — Greenville undertook the following initiatives specifically targeting the childhood obesity epidemic locally:

### Initiatives implemented 2013 through 2015

- Secured placement of a story on the impact of childhood obesity in the leading parenting magazine in the Upstate region of South Carolina. Dr. Michael Mendelow served as the expert source for the article that documented the ill-effects of sugar and the impact excessive weight plays in a child's orthopaedic health.
- Using the internally-produced publication *Leaders in Care*, a separate article chronicled the positive impact of weight loss on a Greenville Shriners Hospital patient. The article educated readers that the patient's weight loss resulted not only in a more positive physical prognosis but also led to beneficial emotional health improvements. Underscoring the importance of the entire family playing an active part in the battle against obesity, the publication reached a significant audience of health care providers, other health care community stakeholders, and local community influencers.
- Promoting physical activity as a key factor in battling childhood obesity, Greenville Shriners Hospital hosted an "American Ninja Warrior" in tandem with the season finale of the popular television program. The entire community was invited to the event where obstacle courses for all abilities promoted exercise, and contestants from the show in attendance personally encouraged attendees to engage in beneficial movement and athletics.
- The Greenville Shriners Hospital patient population is a collective of children whose physical impairments may make it harder to engage in physical activity. To target this vulnerable group, the hospital created an all-abilities karate class. The class, taught by a volunteer sensei, focuses on promoting karate as a form of therapy and exercise. Because weight can aggravate many orthopaedic conditions, the karate class serves as a fun way for children to learn new ways to stay active.

- Farmers Market fresh vegetable box delivery was made available on a weekly basis to not only patient families, but employees as well. The box offered an array of seasonal, farm-fresh options, which inspired subscribers to the service to try new green, leafy options, as well as squash and other vegetables.
- Shriners Hospitals for Children—Greenville supported the Pediatric Orthopaedic Society of North America in bringing the First Cycle event to the Upstate. First Cycle provides children and adults who face physical limitations regarding riding a standard bicycle the opportunity to test modified cycles. The event served as an educational tool for differently-abled individuals to learn how they, too, can stay physically active through the sport of cycling.

## 2015 Action Plan

<b>Objective: Obesity Reduction</b>			
<b>Action Step</b>	<b>Accountability</b>	<b>Timeline</b>	<b>Desired Outcome</b>
<b>Working Well Initiative</b> Provide daily “Working Well” healthy lunch option, as well as healthy food education booth on periodic basis to provide recipe ideas. Patient menu revision to offer healthier options.	SHC — Greenville	Ongoing, with annual evaluation	Promote healthy living by underscoring the importance of healthier food choices for patients, families, employees and visitors.
<b>Physical Fitness Promotion</b> Karate class, Walk for Love, First Cycle, Child Fit, Healthy Behavior Challenge	SHC — Greenville	Ongoing, with annual evaluation	Promote healthy living by underscoring the importance of physical activity.
<b>Community Education</b> Internal and external educational outreach regarding importance of weight control for orthopaedic health, including earned media and corporate publication outreach and in/outpatient nutritional counseling.	SHC — Greenville	Ongoing, with annual evaluation	Increase awareness of healthier living by providing education to the general public

## Conclusion

The epidemic of childhood obesity is continuing to grow and is a priority in our community, which needs to be addressed through the development of prevention-focused actions and collaborations. The findings from the literature, the Greenville Healthy System Research Personal Health Status and Practices Survey, as well as the Community Focus Group, provided direction for our workgroup in the identification of childhood obesity as a priority that Shriners Hospitals for Children® — Greenville could address, given our mission and resources. By incorporating into our services the recommendations from the reports reviewed and collaborating with local resources, we can help support the goal of improving the health of children living in our community.



## Acknowledgements

- Greenville Health System
- Community Benefits Connect
- Community Commons
- Centers for Disease Control and Prevention

## **Exhibits**

This exhibit section is comprised of supplemental graphs, data, the survey questionnaire, and Focus Group feedback.

**Exhibit 1: Greenville Health System Research Personal Health Status and Practices**

**Exhibit 2: Community Voices: Focus Group Research Report**

**Exhibit 3: 2013 Greenville County Obesity, Nutrition, and Physical Activity**

**Exhibit 4: South Carolina -State Nutrition, Physical Activity, and Obesity Profile**

**Exhibit 1: Greenville Health System Research Personal Health Status and Practices**

The research was part of a larger, four-county regional research effort. The Greenville County sample included 207 completed questionnaires collected by telephone and internet. The profile of participants was very diverse. Quotas were imposed to ensure broad representation by age, income and race.

<b><u>Gender:</u></b>	
<b>Male</b>	48%
<b>Female</b>	52%

<b><u>Age:</u></b>	
<b>20 - 24</b>	8%
<b>25 - 34</b>	16%
<b>35 - 44</b>	17%
<b>45 - 54</b>	21%
<b>55 - 64</b>	16%
<b>65 - 74</b>	15%
<b>75 - Over</b>	8%

Spanish-speaking interviewers and questionnaires were used for the project, though 95% of those participating said they were comfortable speaking, reading and writing English.

<b><u>Race:</u></b>	
<b>White, Non-Hispanic</b>	72%
<b>Black or African American</b>	20%
<b>Latino or Hispanic American</b>	7%
<b>All Others</b>	1%

The profile of participants by income range approximates Greenville County overall.

<b><u>Income:</u></b>	
<b>Less Than \$25,000</b>	18%
<b>\$25,000 to \$49,999</b>	24%
<b>\$50,000 to \$74,999</b>	18%
<b>\$75,000 to \$99,999</b>	12%
<b>\$100,000 to \$150,000</b>	12%
<b>Over \$150,000</b>	8%
<b>Refused</b>	7%

Educational levels are often predictors of income levels. Those in the study with a high school education or less totaled 29%, while 42% reported a bachelor's degree or more.

<b><u>Education:</u></b>	
<b>Less Than High School</b>	7%
<b>High School or GED</b>	22%
<b>Tech School or Business School</b>	2%
<b>Some College</b>	19%
<b>Two-Year Degree</b>	8%
<b>Four-Year Degree</b>	28%
<b>Post-Graduate Degree</b>	14%

Most participants in this study reported they have been residents of Greenville for at least 10 years, but one in five were relative newcomers.

<b><u>Length of Residency in Greenville:</u></b>	
<b>Less Than 1 Year</b>	2%
<b>1 Year to 5 Years</b>	19%
<b>6 Years to 10 Years</b>	16%
<b>More Than 10 Years</b>	63%

Most participants said they were married. About a quarter said they were single. Just under half (43%) said they have more than two people living in the home.

<b><u>Living Situations:</u></b>	
<b>Married</b>	58%
<b>Unmarried, But Living With Partner</b>	5%
<b>Divorced</b>	7%
<b>Widowed</b>	5%
<b>Single</b>	24%

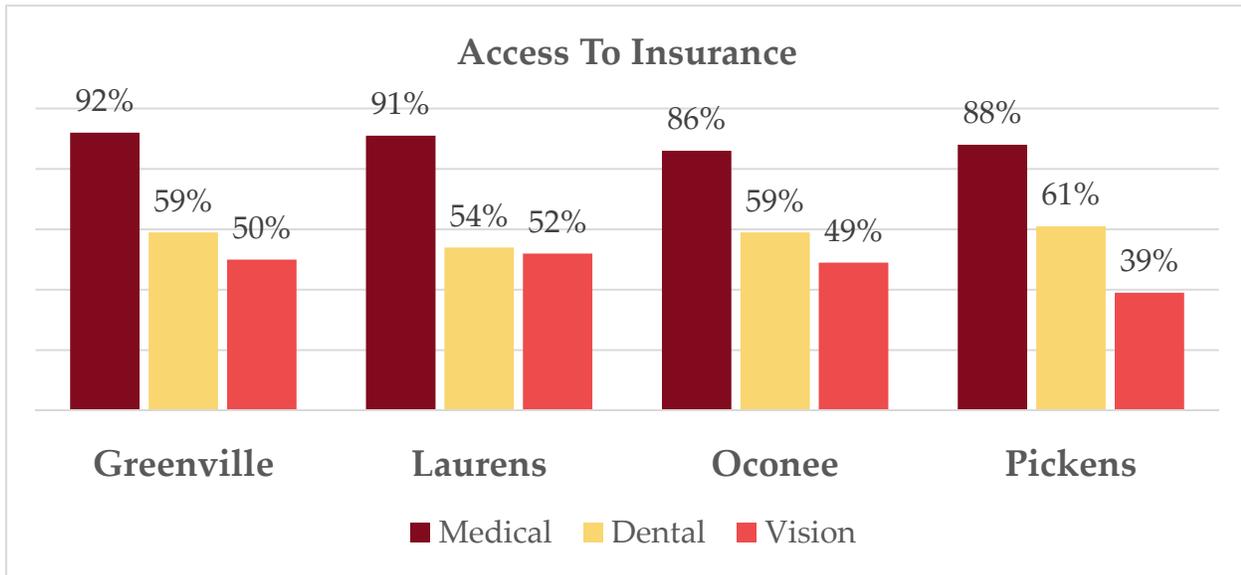
  

<b><u>Household Sizes:</u></b>	
<b>One in the Home</b>	16%
<b>Two</b>	40%
<b>Three</b>	17%
<b>Four</b>	17%
<b>Five</b>	6%
<b>Six or More</b>	3%

The GHS research effort extended to three additional nearby counties--Laurens, Pickens and Oconee. This enables comparison of Greenville only results to a larger regional sample at applicable places in this report.

**Access to Insurance**

The rate of those with health insurance, as well as dental and vision insurance, is slightly higher in Greenville County than in most other counties sampled by GHS. Eight percent of those in the Greenville sample reported having no health insurance at all.



The rate of those without health insurance is slightly higher among those earning \$50,000 to \$75,000 (12%) than for those earning less. This could be an indicator of those who do not qualify for health insurance subsidies choosing to do without.

Among those who are single, 12% are uninsured.

Just over half of those with health insurance (52%) get it through an employer, either their own or a family member’s. At least 10% said they buy their insurance directly, a few additional respondents (two people) cited the exchange as their source of insurance.

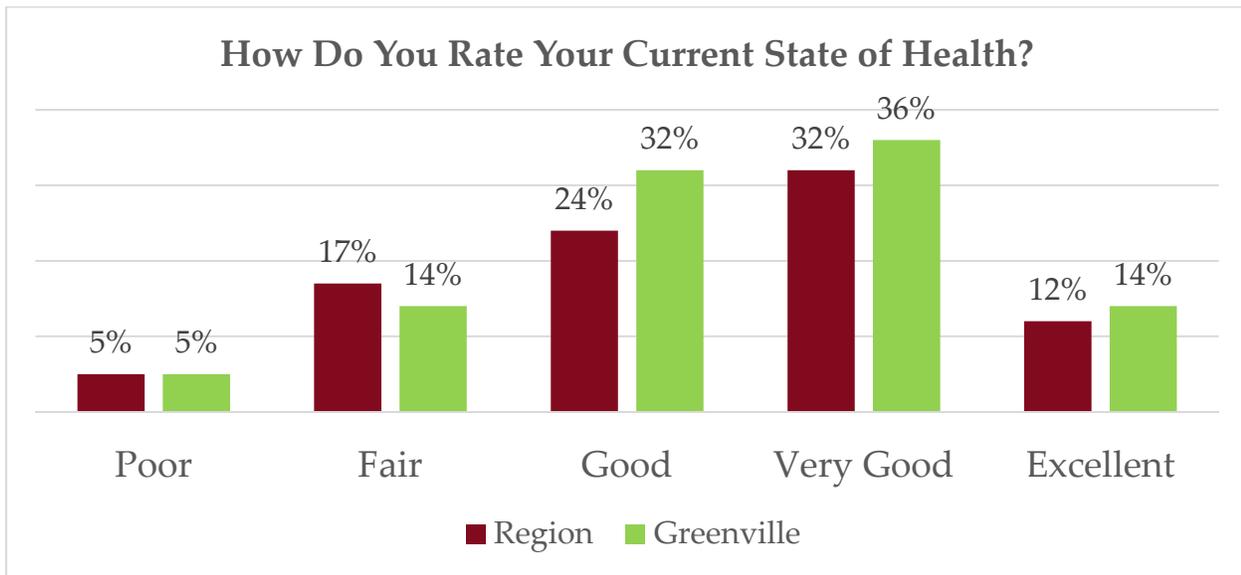
<b><i>Sources of Health Insurance:</i></b>	
<b>Provided by Employer</b>	52%
<b>Purchased Directly</b>	10%
<b>Insurance Exchange</b>	1%
<b>Medicare</b>	26%
<b>Medicaid</b>	5%
<b>Other</b>	2%

One of those who said they purchased insurance off the insurance exchange said they were previously uninsured. The other had insurance previously through an employer.

Those without health insurance were asked if they knew how to enroll in an insurance plan or find out if they qualified for insurance. The sample size is small, but 69% of those without insurance said they do know how to get it.

**Current Health Status**

Most in Greenville County report their health is good, very good or excellent. The results shown below are almost identical to the results to a similar question asked by Bon Secours. Greenville residents are somewhat more likely to report their health is very good or excellent than their neighbors in the region.



Those in the lowest income categories are most likely to report their health is fair or poor. Among those earning less than \$50,000, 29% report their health is fair or poor, compared to just 13% of those earning \$50,000 to \$100,000.

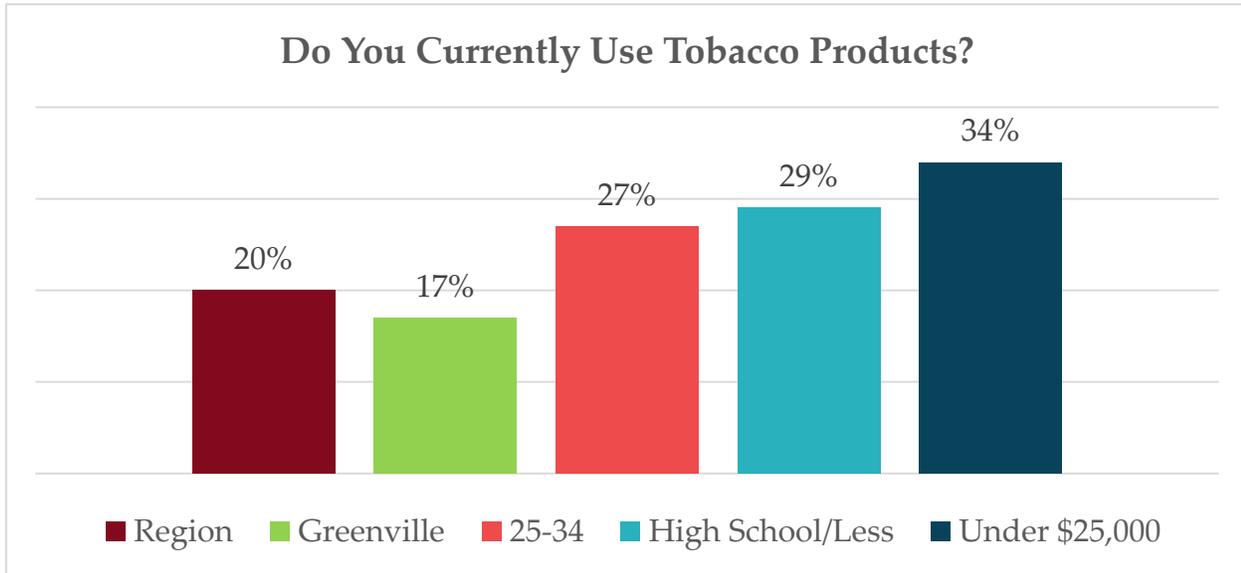
**Tobacco Use**

While 17% of Greenville respondents report using tobacco, the rate of use goes up substantially among those age 25 to 34. Those who have lower levels of education, and those who earn less than \$25,000 are also more likely to use tobacco (see chart on the following page).

Rates of use are also higher among Black respondents at 20%, compared to 15% of respondents who are White.

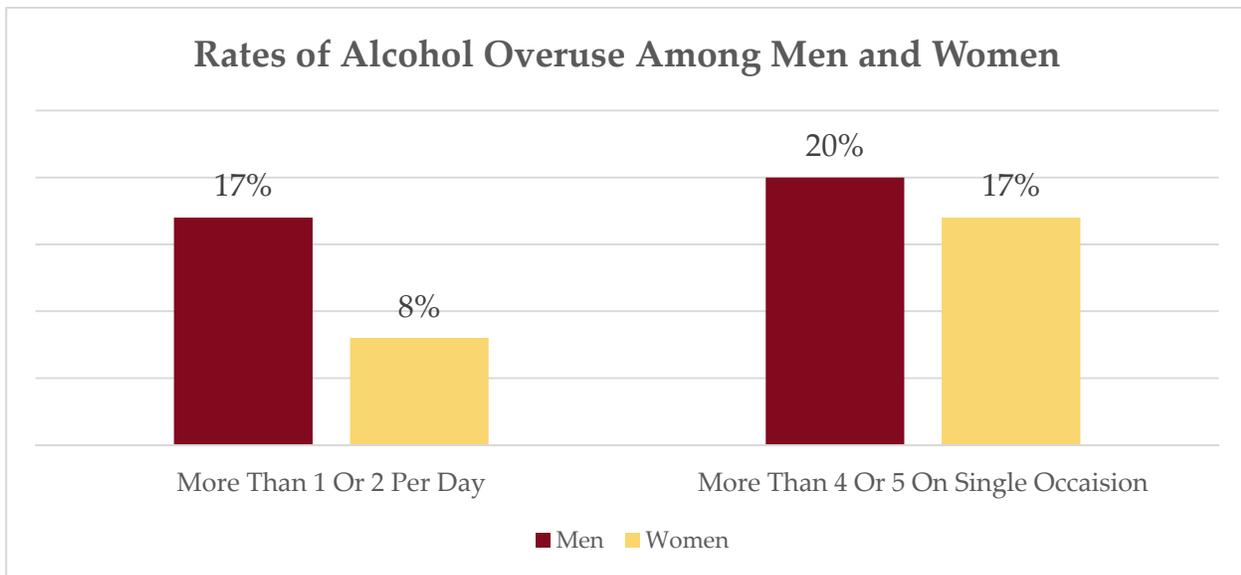
The lowest levels of tobacco use are among those over age 65, those who are married, and those with at least some college-level study.

The level of tobacco use in Greenville is lower than the regional sample.



### Alcohol Overuse and Abuse

While a lower level of income is an indicator of tobacco use, higher income is an indicator for use of alcohol. Among those earning less than \$50,000, 10% report drinking more than one drink per day (among women) or two per day (among men). Among those earning over \$100,000, however, that rate of consumption rises to 19%.



Alcohol typically affects men and women differently due to different body mass. So the question for men was if they drink more than two alcoholic drinks per day on average, and 17% said yes. For women the question was if they drink more than one per day on average, and 8% said yes.

So men are twice as likely to overuse alcohol as women. They are also more likely to binge drink.

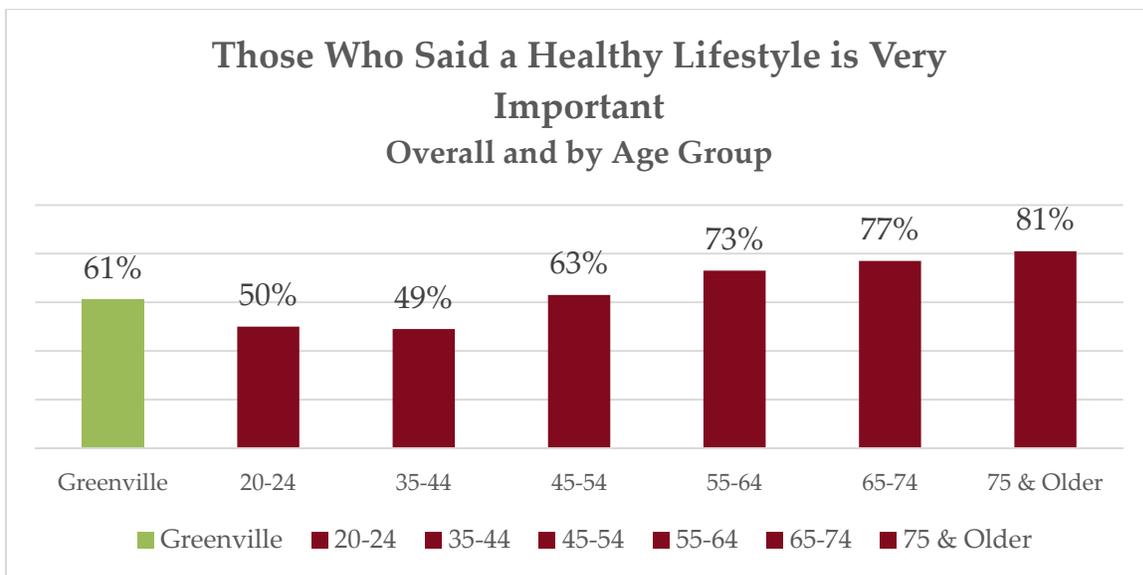
Binge drinking was defined for men as more than five alcoholic drinks at a single occasion in the past 30 days. For women the measure was more than four drinks at a single occasion in the last 30 days. By those definitions, 20% of men and 17% of women said they had binged on alcohol at least once in the previous 30 days.

The rate of binge drinking is highest among those 25 to 34, where it rises to 38% overall--men and women--compared to 18% among all age groups.

**Importance of a Healthy Lifestyle**

Nine of 10 Greenville residents said that a healthy lifestyle is at least somewhat important to them. Only one percent said it was not important at all. Overall in Greenville County, 61% said a healthy lifestyle is very important to them, and an additional 30% said it was somewhat important.

The importance of a healthy lifestyle gets more important with age. Those who said a healthy lifestyle is very important is highest among those over age 75 (see chart below).



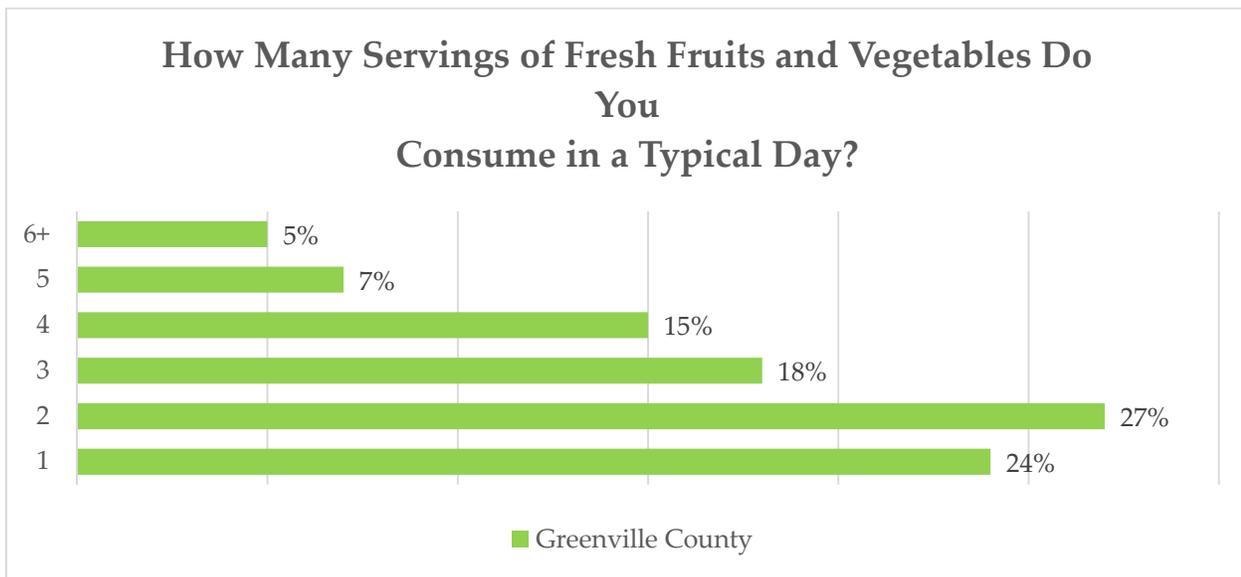
Across the county, 9% of respondents said a healthy lifestyle is only a little important to them. Those responding this way were mostly under age 35.

Does a desire for a healthy lifestyle translate to healthy behaviors? To measure that, participants were asked about their dietary and exercise habits.

Eating Fresh Fruits and Vegetables

The USDA (United States Department of Agriculture) recommends American adults eat at least two-and-half cups of fresh vegetables per day and at least two cups of fresh fruits. The research shows, however, that only 29% of Greenville respondents eat at least four servings of fresh fruits and vegetables in a typical day.

Over half of respondents (51%) said they eat only one or two servings, while 6% said they eat none at all.



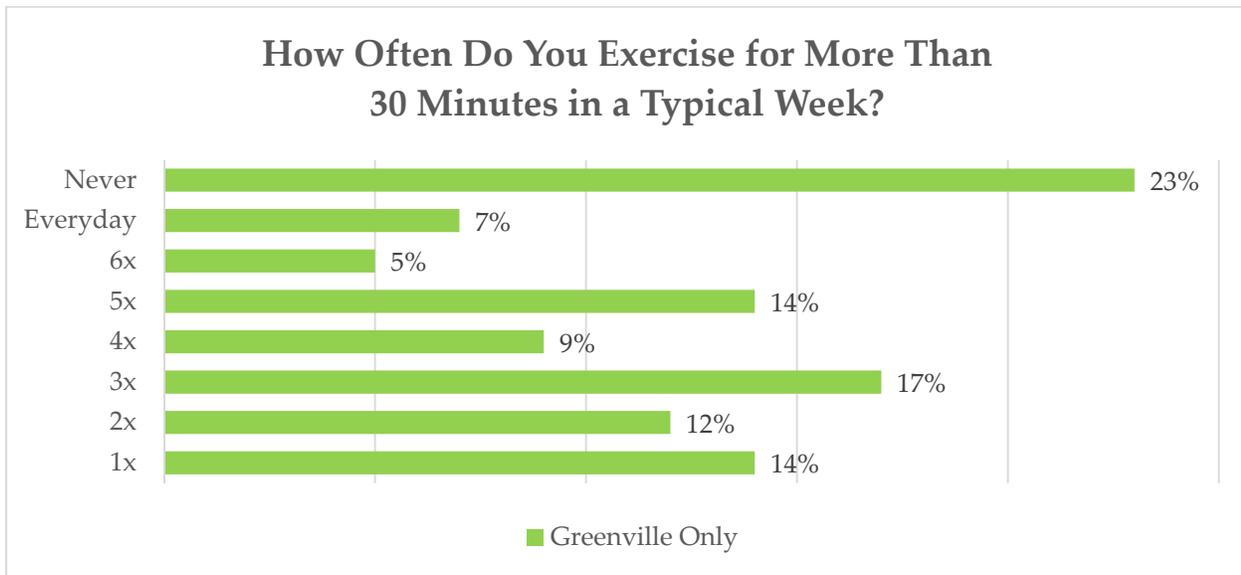
There are small discernable differences between dietary habits based on income levels. Among those earning less than \$25,000, 57% reported eating two or fewer servings of fresh fruits and vegetables daily, compared to 40% of those earning more than \$100,000 per year.

Older respondents might value a healthy lifestyle more than younger persons, but their eating habits are not much different and, in fact, could be worse. Among those under 35, 52% eat two or fewer fresh fruits and vegetables in a typical day. Among those over age 65, however, 63% eat two or less servings per day. Lower income among older residents could be an explaining factor.

Regular Exercise

Older Greenville residents are more likely to exercise regularly than many of their younger neighbors, however. In fact, those over age 65 exercise for at least 30 minutes for an average of 3.6 days in a typical week, compared to 3.2 days for those 35 to 44. However, the most active group was 25 to 34 at 4.0 days per week of exercise.

Those who earn the most tend to exercise the most. Those earning more than \$100,000 a year exercise at a rate of 4.6 days per week, compared to 3.3 days for those earning \$50,000 to \$75,000.



Most notable about the chart above is that almost a quarter of respondents (23%) said they do not exercise at all. Another 26% exercise less than two times per week.

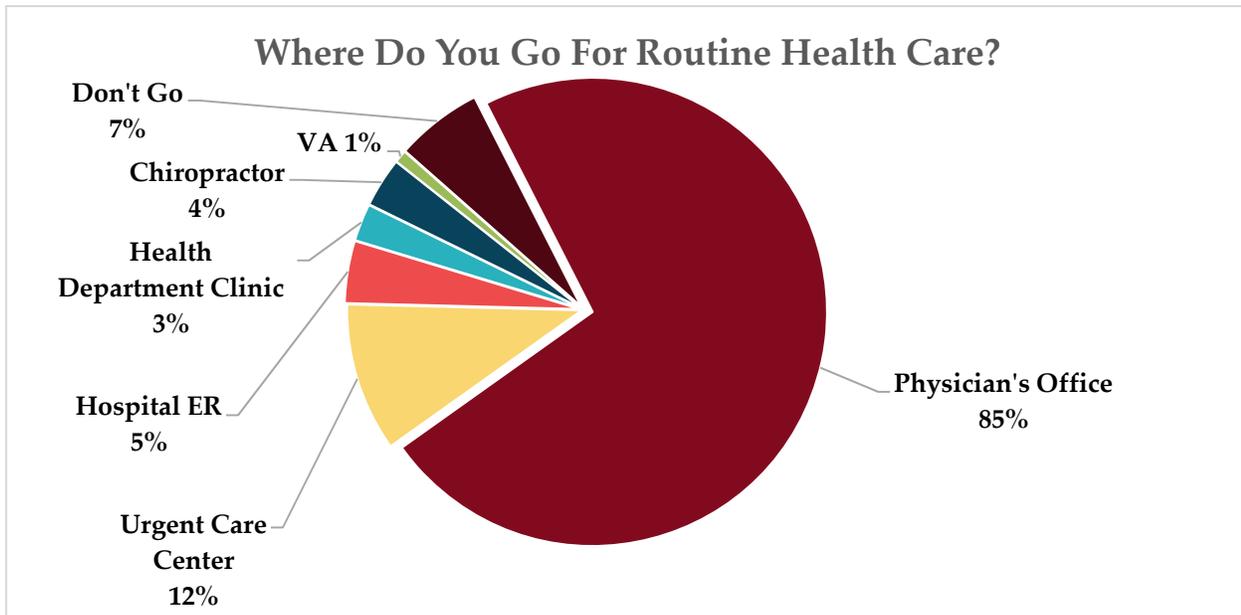
**Access to Health Care**

The research measured an overall insured rate of 92% among Greenville residents; so, one would expect that most of those in the research would also have access to a doctor when they need one. That appears to be the case.

Among Greenville residents, 85% reported they go to a physician’s office for routine health care, while 12% go to an urgent care center. Only 5% reported using a hospital emergency room routinely, while 7% said they don’t go anywhere. Respondents could pick more than one possible response.

Women are more than twice as likely as men to say they don’t go anywhere for routine care, 9% compared to 4%. Those who earn less than \$50,000, or who do not have health insurance are also more likely to say they don’t go anywhere for care.

Younger residents are also more likely to report they don’t go anywhere for care. For example, 13% of those age 25 to 44 said they don’t go anywhere for routine care, compared to 7% of those age 45 to 54.



Access to Physicals

Almost three-quarters of the survey (72%) reported they had a physical within the previous year, and another 13% said they had a physical within the previous two years.

Those who said they have not had a physical in the past five years, which is 7% of respondents, are very similar to the 7% who don't go to a doctor routinely. They are most likely to earn less than \$50,000 annually, and are younger than age 45.

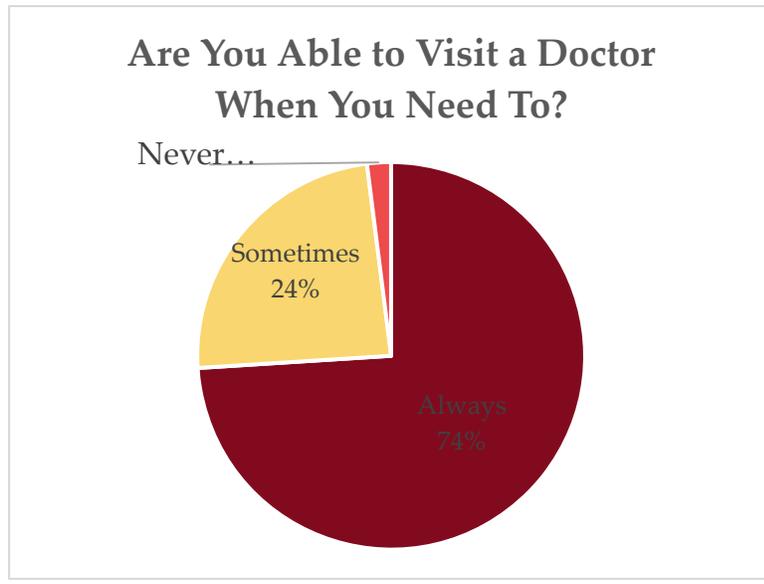
Men and women appear to get physicals at about the same rates, however. The research shows that 73% of men have had a physical in the past year, while 7% have not had one at all in the past five years. Among women, 71% have had a physical in the past year and 7% had not had one in the past five.

Physician Access

Three-fourths (74%) of Greenville residents said they are always able to see a doctor when they need one. Another 24% said they can see a doctor sometimes, while 2% said they can never see a doctor.

Access to a doctor is more difficult for Latinos, with only 47% reporting they can always see a doctor, and 53% saying they can sometimes.

Those few who said they can never see a doctor all earn less than \$50,000 a year.



The reasons respondents gave as to why they cannot always visit a doctor focused mostly on time and scheduling. They could cite more than one reason:

- 35% said it was too expensive or they could not afford it.
- 28% said they could not get an appointment outside of work or school hours.
- 28% said they could not get a same-day appointment.
- 17% cited transportation problems.
- 9% said they had no insurance.

Emergency Room Visits

Forty-five of the 207 in the study said they had been to an emergency room in the previous 12 months. Of those who went to the ER, 60% went only one time, and 20% went two times. The remaining 20% went to the ER three or more times.

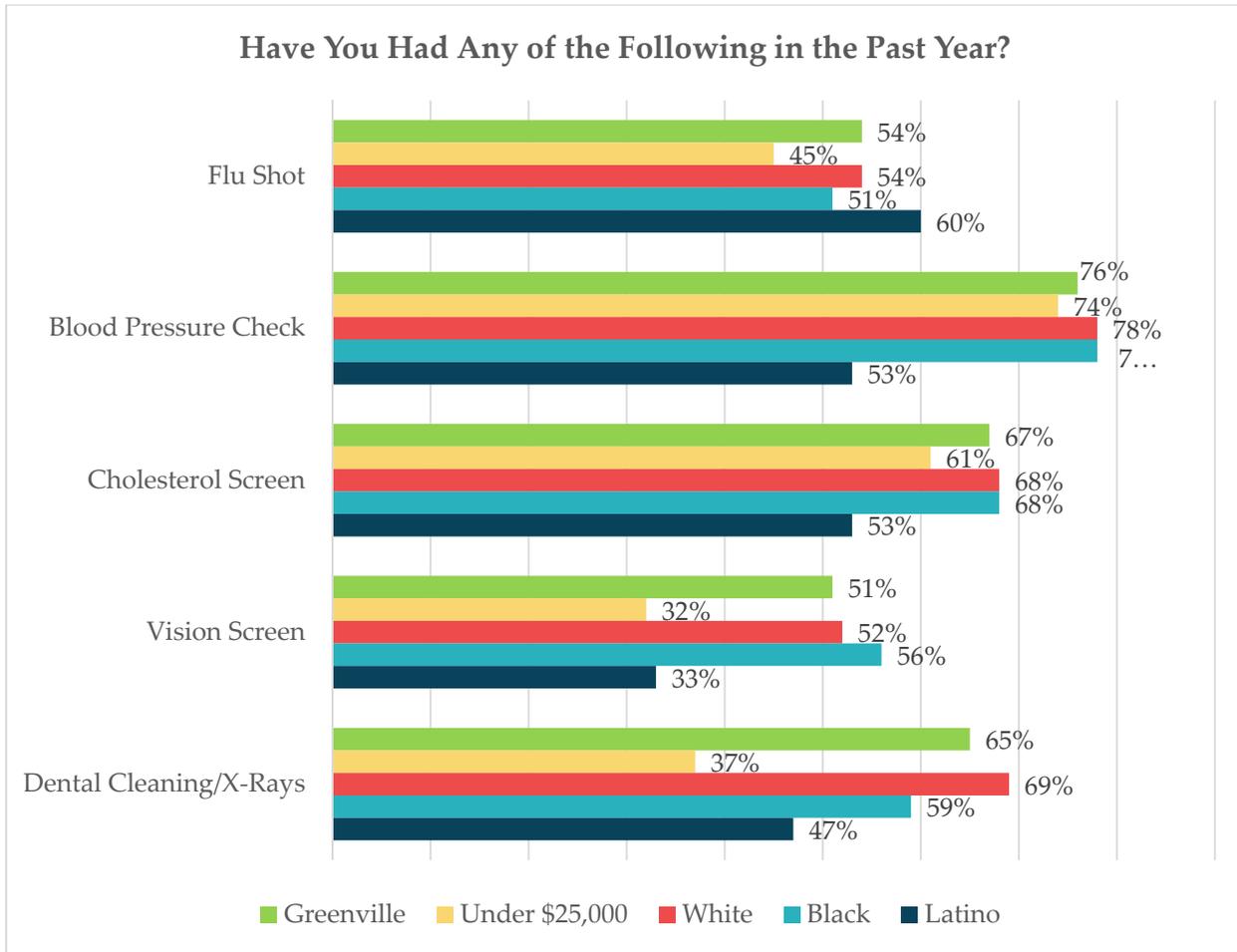
Those most likely to go the emergency room are over age 75 and/or at the lowest income levels. Forty percent of all the ER users earn less than \$50,000.

Preventative Healthcare

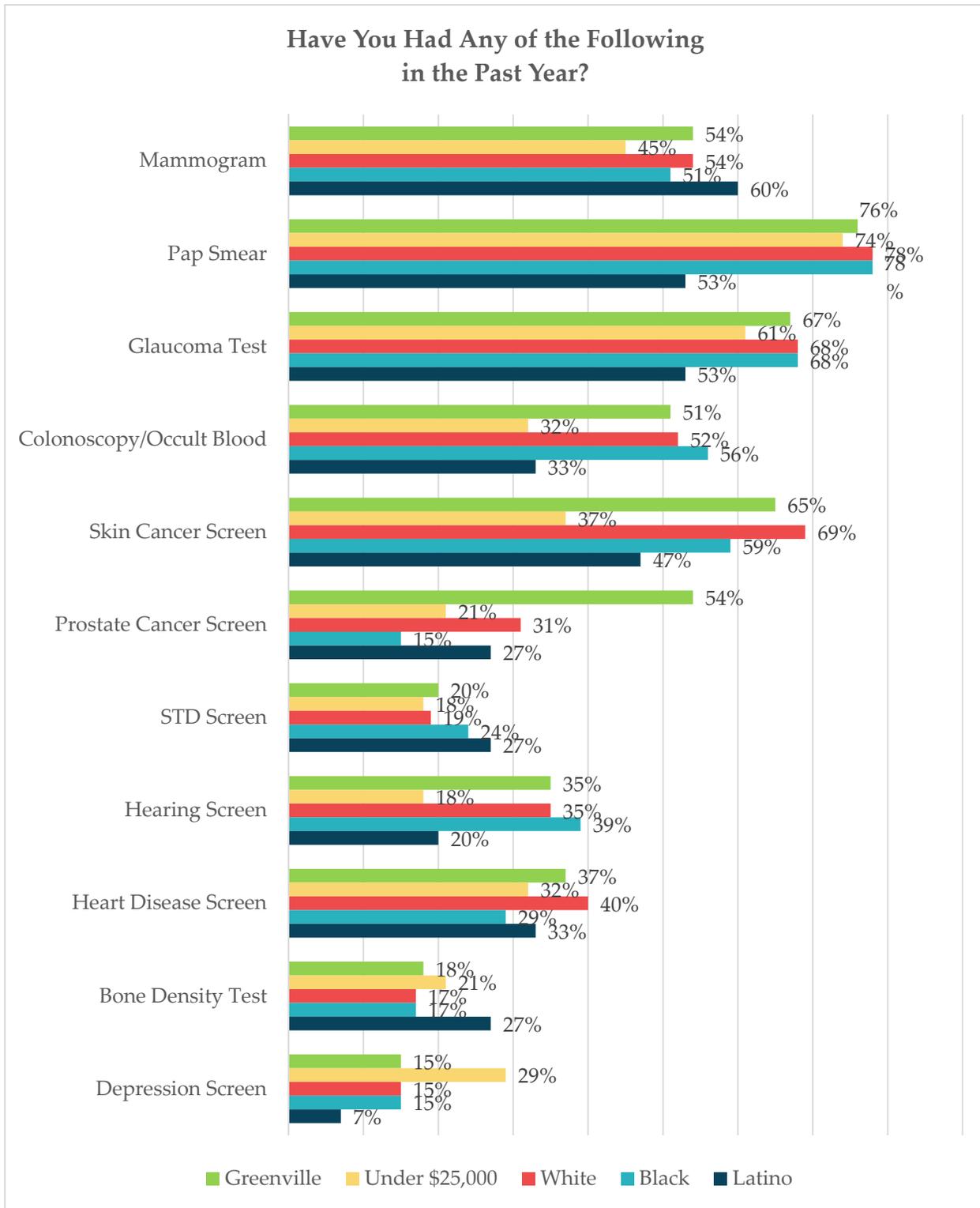
The research asked participants about a list of five common preventative health services and whether they have received them in the past year. The graph below shows responses for the county and for several key groups.

The research shows that access to basic preventative services for those at the lowest income levels is not substantially different than the overall county response except for vision screenings and dental exams.

The research shows that White and Black residents of Greenville County report similar access to these services, but Latinos report less access.



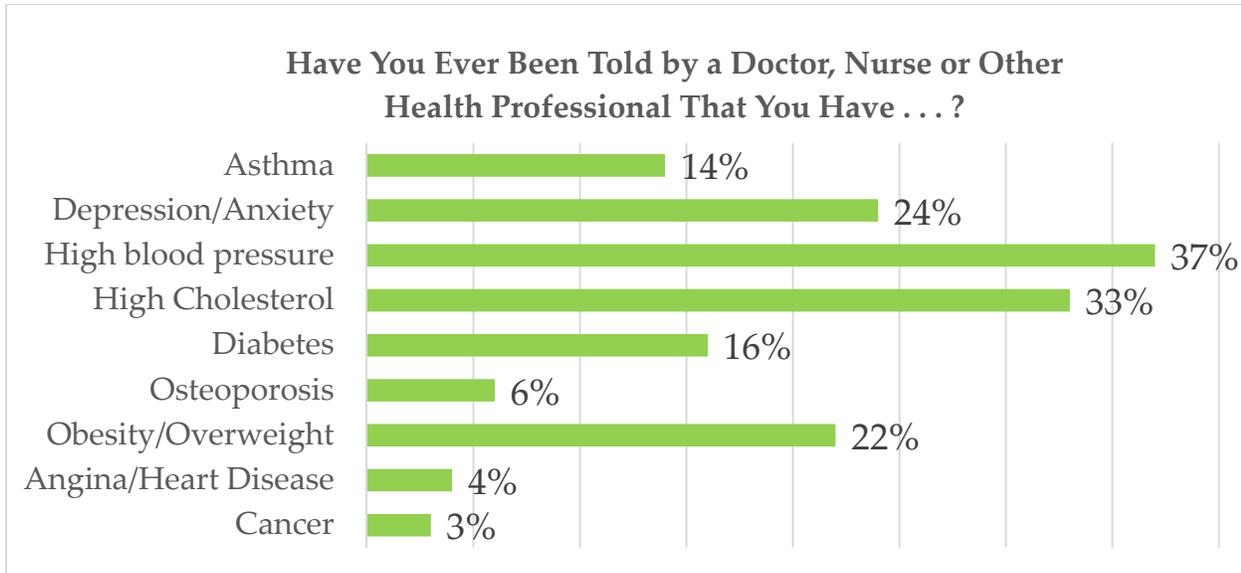
The research then asked about 11 additional preventative health screenings or exams, and whether participants had ever had them.



Access to most of these services are consistently lower for those earning less than \$25,000 annually. For many screenings, Latino access is also lower. Access for Black and White Greenville residents is similar for most services.

Health Conditions

The survey asked about a variety of health conditions and whether participants had been told by a doctor or health professional that they have any of them. The chart below shows the overall responses.



The table below shows the prevalence of health conditions among Greenville County overall and by gender, age and race.

Have You Ever Been Told by a Doctor, Nurse or Health Professional That You Have Any of the Following Health Conditions?										
	Male	Female	25-34	35 - 44	45 - 54	55 - 64	65 - 74	White	Black	Latino
Asthma	10%	17%	18%	14%	16%	6%	7%	14%	12%	13%
Depression/	16%	32%	32%	23%	23%	27%	10%	26%	20%	20%

Anxiety										
High Blood Pressure	44%	30%	9%	29%	26%	42%	73%	34%	49%	20%
High Cholesterol	45%	21%	9%	14%	37%	39%	67%	24%	24%	27%
Diabetes	20%	11%	0%	11%	9%	33%	30%	15%	20%	7%
Osteoporosis	5%	7%	0%	0%	9%	12%	7%	7%	5%	0%
Obesity/ Overweight	20%	17%	9%	14%	26%	24%	23%	22%	10%	7%
Angina/Heart Disease	13%	3%	0%	6%	2%	15%	13%	8%	7%	7%
Cancer	9%	3%	0%	3%	7%	9%	13%	7%	2%	7%

Older residents tend to report the most health problems, though there are exceptions. Rates of diabetes and obesity are higher among those 45 to 64. High cholesterol and high blood pressure are more frequently diagnosed among men. Rates of depression and anxiety are higher among women.

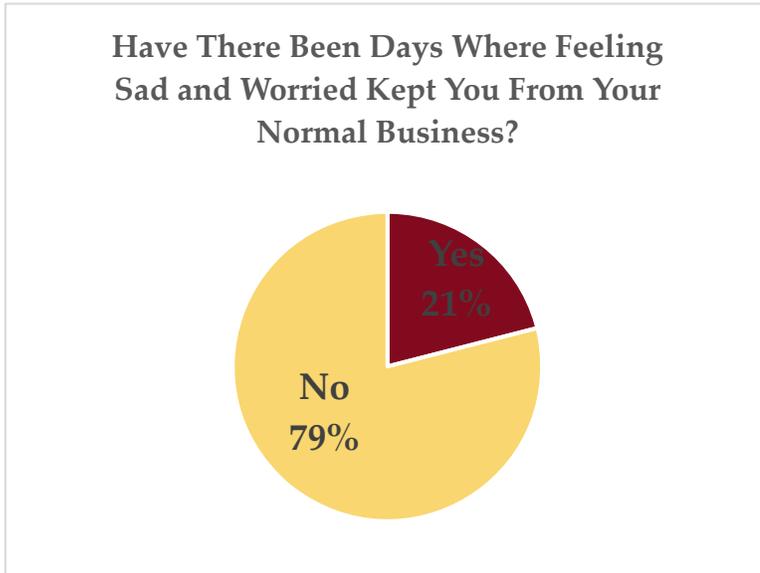
Sadness and Worry

Respondents were asked if, in the previous 30 days, there had been any days when they were feeling so sad or worried they could not go about their normal business. Over one in five, 21%, said they had felt that way.

Those most likely to report feeling this way are younger, with 28% of those 20 to 34 answering yes.

Income is also a factor, with 29% of those earning less than \$25,000 saying they had experienced that level of sadness or worry.

Almost half--49%--of those who reported feeling sad or worried said they were being seen by a professional.



*Pain and Physical Problems*

Just over a quarter of respondents--26%--said they had physical pain or health problems that made it hard for them to do their usual activities, such as driving, walking around or going to work.

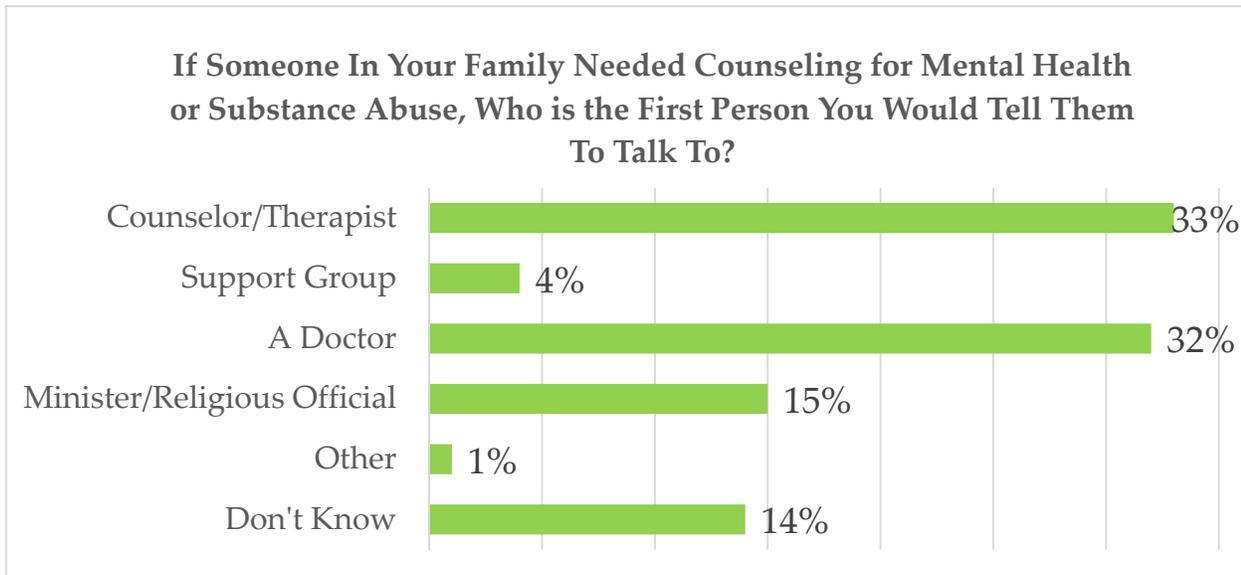
These problems were higher among those 45 to 54 (40%) and those 55 to 64 (30%). Those earning \$25,000 to \$50,000 also reported higher levels of pain and physical problems, at 35%.

Among those citing pain or physical issues:

- 27% reported back pain.
- 15% said hip, leg, ankle or foot pain.
- 11% said arthritis.
- 11% cited headaches.
- 9% said heart problems or chest pain.

*Behavioral Health Support*

When asked where they send someone in their families who needed counseling for mental health care or a substance abuse problem, Greenville residents named a variety of options. Only a third said they would tell their family member to go to a counselor or therapist. Almost as many would recommend a medical doctor.



The “don’t know” response is higher among older and low-income respondents.

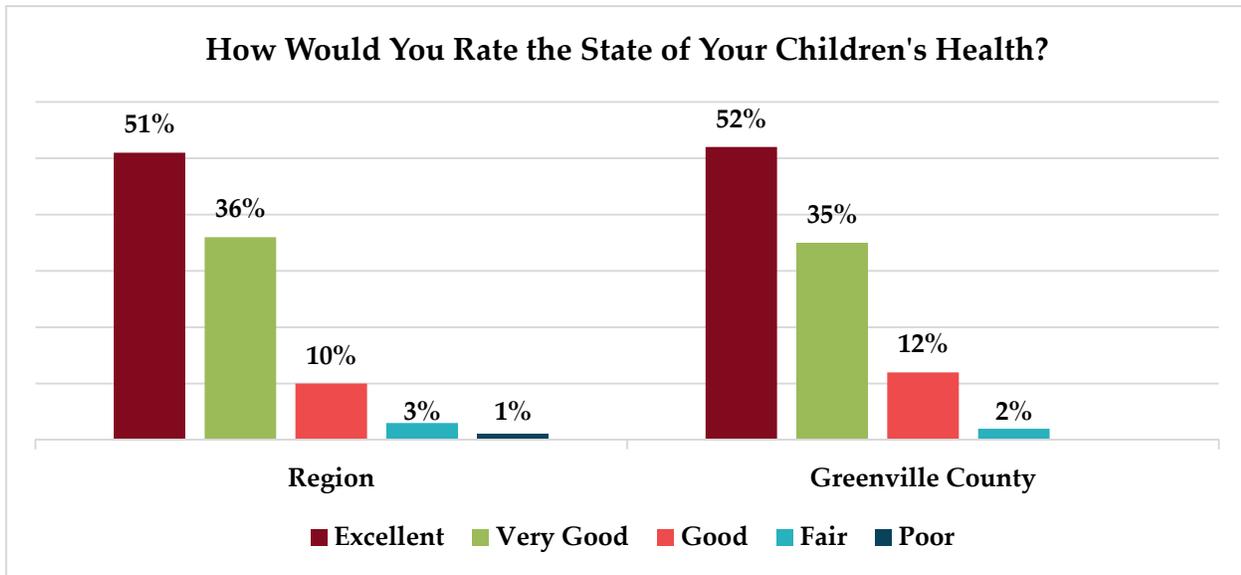
**Children’s Health Issues**

Participating in the study were 58 adults with children under 18 in their homes, which is 28% of the sample. They were asked a series of questions about access to health care services for children, diet and exercise habits and other issues.

Here are the major findings about physician access:

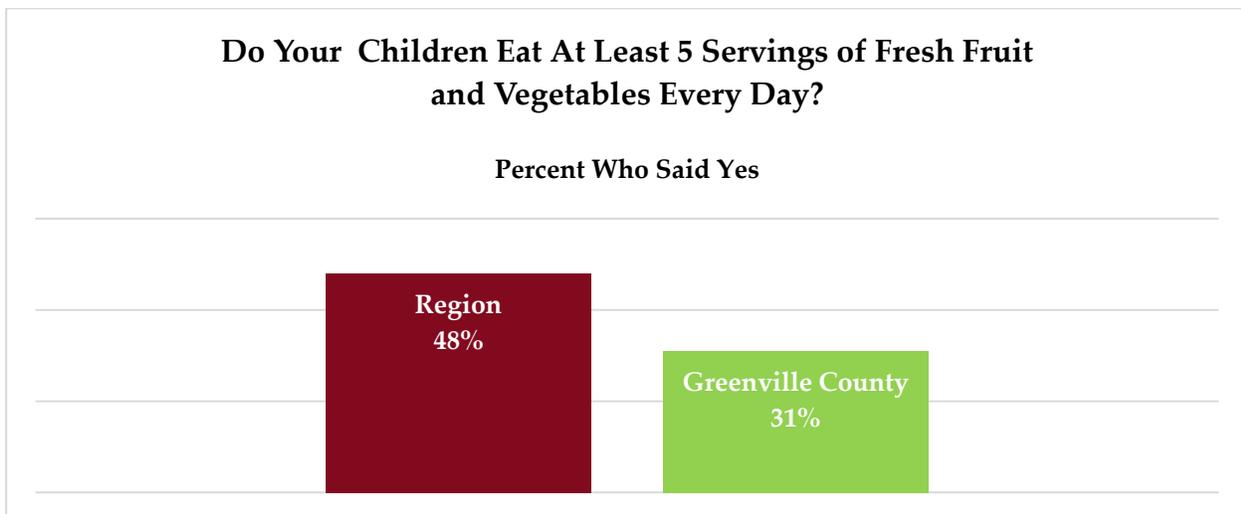
- Almost every parent (95%) said they take their child to the doctor each year for a well visit or physical.
- Among the small number who don’t, the cost of care and worries about germs were the reasons cited.
- 93% said they are always able to take their children to the doctor when they need to.
- 7% of parents said they are sometimes able, or never able to take their children to the doctor when they need to. Expense or lack of insurance are the primary reasons they cannot always go.

Most Greenville parents view their children’s health as excellent or very good. Only one parent in the Greenville sample said their child’s health was only fair. Child health in Greenville County appears consistent with other counties in the region.



Nutrition

Less than a third of parents said their children eat at least five servings of fresh fruits and vegetables every day, which is substantially lower than in surrounding counties.



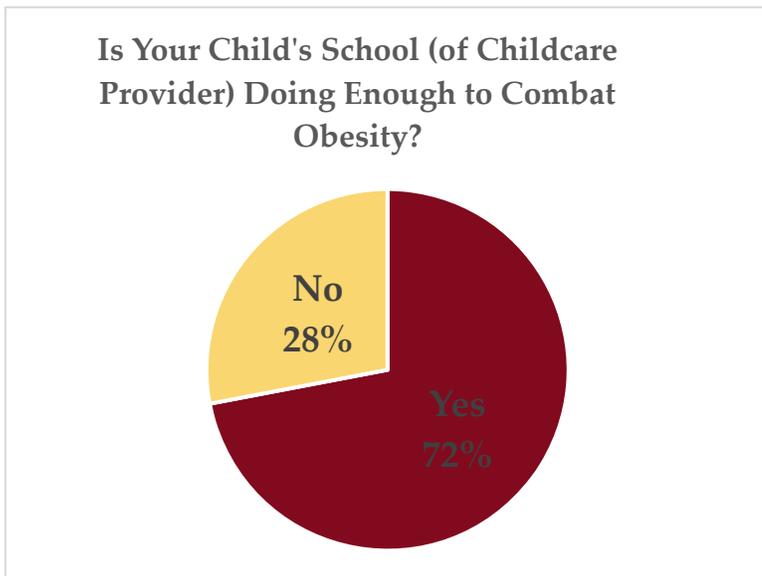
What are the most important decision factors for parents when choosing nutrition for their child? Here is how the parents responded:

- 44% said a healthy choice is the most important factor when choosing nutrition for their child.
- 22% said cost was the most important factor. This was the leading response from parents who earn less than \$50,000.
- 19% said child preference was the leading factor.
- 9% cited the closeness of the grocery store as most important.

Sleep

The vast majority of parents--91%--said their children get seven to eight hours of sleep per night. The number of parents who say their children do not get enough sleep are too small to discern any meaningful pattern.

Childhood Obesity and Exercise



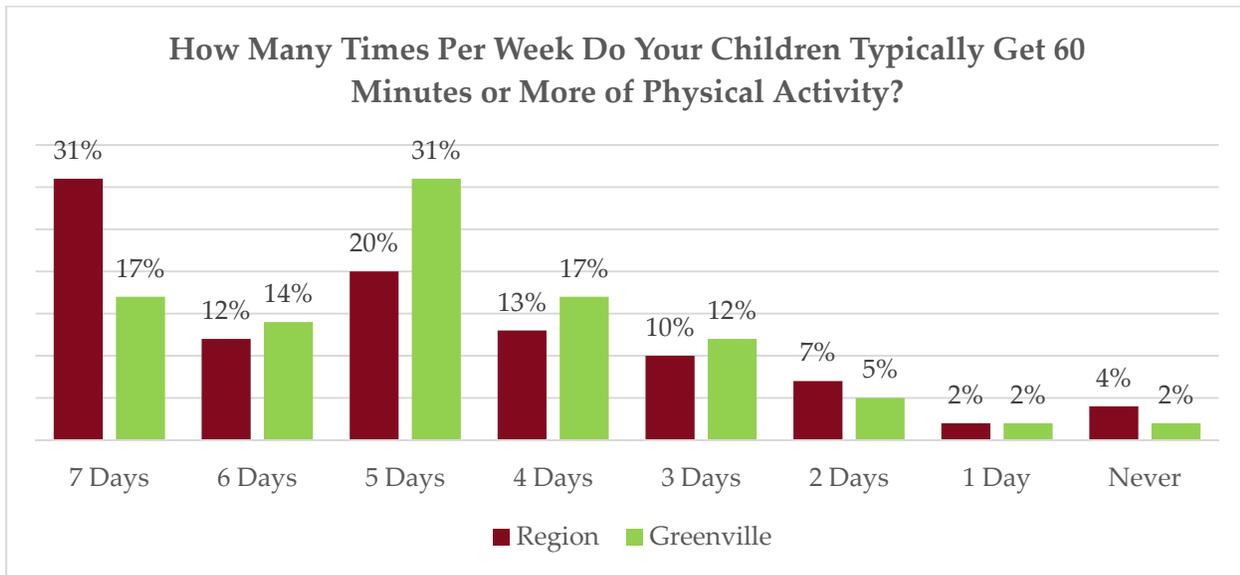
Parents were asked whether their child’s school or childcare provider is doing enough to combat childhood obesity. While most say yes, over a quarter of parents (28%) said no.

What could or should schools be doing differently? Here are the top three complaints:

1. Poor food choices in the cafeteria.
2. Not enough exercise or physical education.
3. Lack of parental involvement.

A majority of parents report their children get at least 60 minutes of exercise at least five days per week, but only 17% report their children get exercise every day. This is less than the regional sample, which includes more rural counties around Greenville.

On average, based on this research, children in Greenville County get 4.8 days of exercise per week.



Awareness of Health Risks

Parents were provided a list of health issues affecting children, adolescents and teens and asked which ones their children need to know more about. Nutrition and the importance of physical fitness were among the leading responses, along with dental hygiene.

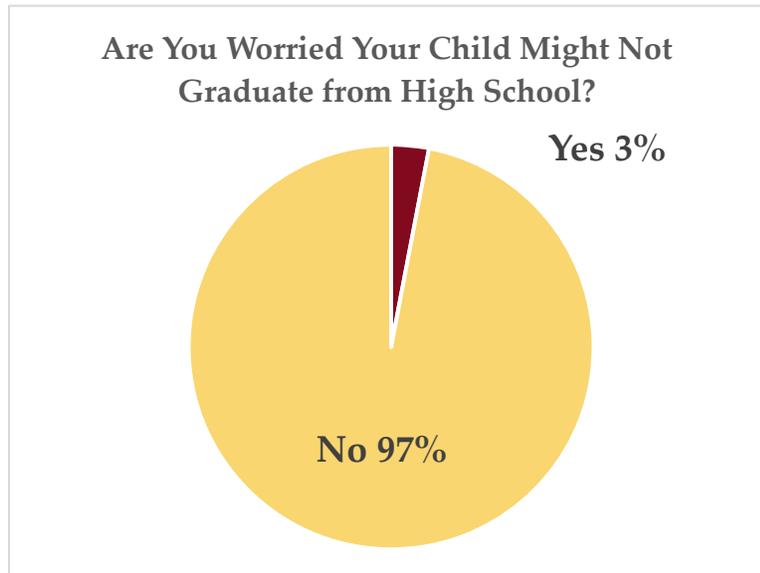
Parents could choose more than one issue. The list below ranks all 15 issues based on the percentage of parents who chose it:

*What Parents Think Their Children Need to Know More About:*

1. Nutrition (55%)
2. Dental hygiene (47%)
3. Keeping physically fit (36%)
4. Driving safety/Reckless driving (36%)
5. Risks of alcohol (31%)
6. Bullying (29%)
7. Risks of drug use (28%)
8. Risks of tobacco (26%)
9. Risks of sexual behavior (24%)
10. Sexually transmitted diseases (21%)
11. Mental health issues (19%)
12. Suicide prevention (17%)
13. Asthma management (10%)
14. Literacy (10%)
15. Eating disorders (7%)

Top issues are endorsed consistently by parents of all income and educational levels.

Very few parents said they are worried their children might not graduate from high school.



### **Greatest Community Health Concerns**

Greenville adults in the GHS study were asked to identify, based on their experiences, the greatest health concerns in their community. They could provide any number of answers. Here are their top 15 responses and the percentage of persons who voiced them:

#### Top Health Concerns

16. Obesity (33%)
17. Cancer (32%)
18. Diabetes (20%)
19. Drug use (18%)
20. Alcohol use (17%)
21. Heart disease and stroke (16%)
22. Mental Health (14%)
23. Domestic violence (13%)
24. Tobacco use (13%)
25. Alzheimer's/Dementia (10%)
26. High blood pressure (11%)
27. Arthritis (5%)
28. HIV/AIDS/Sexually transmitted diseases (2%)
29. Suicide (2%)
30. Infant death (1%)

The importance of a few of these issues vary depending on demographic factors. For example:

- Cancer is a greater concern for those who earn less, with 45% of those earning between \$25,000 and \$50,000 citing it as their greatest issue.
- High blood pressure is more important to Black respondents (20%) than it is to Whites (10%).
- Obesity is more important to Whites (40%) than to Blacks (15%).
- Those with children in the home are also more likely to say obesity is a concern--41% compared to 29% of those without children.

### **What Can Local Hospitals Do to Improve Community Health?**

Participants were encouraged to provide ideas about what Greenville hospitals could do to have the greatest impact on improving health in the community. Although 42% offered no ideas at all, most did offer suggestions. The list below ranks the most popular recommendations based on the percentages of persons voicing them.

*Where Local Hospitals Can have the Greatest Impact on Improving the Health of the Community:*

1. Lower cost or free clinics (13%)
2. Community education and outreach (10%)
3. Preventative care (5%)
4. Free wellness programs or screenings (5%)
5. More urgent care (5%)
6. Financial assistance with insurance (4%)
7. Better emergency services (3%)
8. Healthy eating programs or weight control (3%)

## Exhibit 2: Community Voices: Focus Group Research Report

Similar to the findings of the quantitative research, the primary concerns of those in the focus groups were more on social and cultural issues, rather than disease or health system performance.

Based on facilitated discussion and prioritization from the three groups, their five priority issues are:

1. Mental health care
2. Affordable housing
3. Obesity, including increased awareness and access to healthier foods
4. Access to health care
5. Transportation

Key observations about these priorities are described in the summary below.

### Mental Health Care

Concerns about mental health care in Greenville County run long and varied. Discussion of the subject ranged from resource issues, like a lack of treatment facilities and counselors, to societal issues, like dysfunctional families and teen culture.

Participants in all three groups agree that there are not enough counseling, treatment and support resources available in the county, especially for low-income adults. All see the need for more psychiatrists and psychologists. The lack of availability means that it is almost impossible for a low-income adult to access mental health services unless they are in crisis.

*“You have to be a threat to yourself or to someone else before you can get any help.”*

*“You can’t get help unless you’ve been hospitalized three times. Why can’t we do something to get to the root of a problem before a hospitalization?”*

The Greenville County problem was exacerbated when the state of South Carolina closed some mental health services, leaving more people with needs in the community. This puts the burden of intervention and care on systems and people who may not be prepared to handle it.

*“Police feel compelled to take people to the ER. But when they leave the ER they are right back where they were, probably not taking their meds.”*

Compliance with medication is a major issue. Some with mental health problems get helpful medications at the hospital or emergency department, but they don’t stay on them either because they don’t have the money or because they just stop. Behavioral meds can be difficult to adjust to or regulate, so without follow-up medical supervision, some patients find it difficult to stick with the medications they need. Non-compliance is especially problematic among the homeless.

Leaders in the focus groups see opportunities for the community to work together to provide earlier intervention and support to help people and families in need before there is a crisis. For example:

- Police can be better trained to recognize a person in a mental health crisis.
- Social workers can be trained to administer a simple assessment to identify people who might need help, and encourage them toward assistance.
- Public employees and social workers can be trained to recognize stereotypes and biases related to mental health, and break through them to provide more consistent, and more empathetic support.
- Health care providers and those in mental health can be educated to look at behavioral needs more holistically, and take into account the entire family.
- Families, the homeless and low income can be better educated regarding available support services.
- Mental health providers can be more transparent about the services they provide and the costs.

Families often have distinct needs related to mental health or behavioral health. Just as services are scarce for low-income adults, they are also lacking for children and adolescents from low-income families.

Many of the behavioral problems facing children and youth are not really mental health issues, but are the result of disengaged or absent parents, and the influences of peer pressure, technology, drugs and alcohol and stress.

### Affordable Housing

In the words of one focus group participant, “housing is health.” His point is that a safe, stable place to live influences so many other health practices. Without a home you are exposed to the elements, you have nowhere to store medications, your doctor can’t find you to follow up on test results, and you feel depressed. Stabilize the home first, and better health will follow.

There was a lot of agreement with that philosophy in the three focus groups, but solutions to the problems of homelessness and housing are daunting.

The bottom line is that Greenville does not have enough affordable housing options for low-income singles or families. There are virtually no single bedroom options for those who are homeless, older and alone. Apparently many homeless veterans fall into this group. There are also few public housing options for larger, low income families.

*“Family composition is a big issue in public housing. For 75 percent, the family is a female head of household and 4.5 children. That’s too many heartbeats for public housing. A voucher won’t cover that many.”*

The lack of low-income housing means that even those who qualify for subsidized housing might not find openings. The Section 8 voucher program is intended to help families escape poverty. It can take several months for a family to save up money for a move and then qualify for a Section 8 voucher, but that does not guarantee they will find a place available.

Several in the groups point out that the growing popularity of downtown Greenville is putting increased pressure on the problem of affordable housing in the city. Rising home prices and rents push low-income families out of the city center. This leads to new difficulties with transportation and access to health services.

These community leaders recognize housing is not a traditional health care issue, and they don’t expect a health care system or hospital to solve it. Yet the connection between health status and a safe, affordable place to live is very real.

What these leaders hope for is a broad-based community response to the problem. In one group someone noted that Greenville does not have a housing commission to address growing needs.

### Obesity

Obesity among adults and children is at the center of a web of sticky health issues, notably diabetes, hypertension and heart disease. These community health leaders believe the solution lies primarily in changing the way Greenville citizens think about food.

Those most in need of education, awareness and change are parents whose nutritional choices are influencing the next generation. Whether it is through lack of understanding or simply preference for the cheap and easy, these leaders observe that many parents choose an unhealthy diet for themselves and their kids.

*“It’s a shocking thing. We rescue food from Whole Foods. We get enough for 25 families, but we can’t get more than 18 to 20 to show up. There are healthy foods like whole grain breads to choose from, but they want the cupcakes. They’ll say, ‘there was nothing left but bread.’ But it’s great bread.”*

Unhealthy foods, such as processed foods, tend to be cheaper and easier to prepare and serve. Fresh fruits and vegetables require more expense and more effort. Even if a parent invests the effort to serve healthier foods, chances are children won’t eat because they don’t have a taste for them.

*“It’s easier to buy the processed foods. It’s the most economic thing to buy. But at the end of the day, it’s what’s causing all the disease.”*

These community leaders endorsed the idea of increasing nutritional literacy among adults and children, regardless of income levels. Nutritional literacy can be defined as teaching parents and children what they need to know to understand food and prioritize food choices.

*“Teaching people to choose good food over fast food or convenient food will take a lot of education. It’s not just a poverty issue.”*

There are some people for whom food choice is not the issue, it is food availability. Those at the lowest income levels can be food insecure, meaning they literally don’t know where their next day’s meals will come from. Several in one group endorsed screening people for food insecurity as part of physical examinations.

While most of the obesity discussion centered on diet, participants also expressed concerns about the lack of safe places to walk, bike and exercise for some Greenville residents. While there are safe parks and trails in the city, some residents can’t access them due to distance and lack of transportation. There are also areas where it does not feel safe to walk or let children play outside.

### Healthcare Access

While Greenville County offers many quality health care services, access continues to be difficult for some low-income residents. Whether it be lack of insurance or lack of funds for deductibles and co-payments, some residents struggle to access the health care they need.

One of the most significant factors affecting the problem might be described as health illiteracy. People at all income levels, but especially those with less education and lower income, have difficulty understanding and navigating the complexities of health insurance, doctors and hospitals.

They don’t know how insurance works or what insurance terms mean. They don’t know how to evaluate insurance options and pick the right plans. They don’t know how to prioritize their health spending. Increasing health literacy could improve access to care.

*“People don’t know how the insurance system works. Even if they have insurance, when they start getting EOBs it’s hard to figure out what they owe. Some just conclude it’s easier to go the ER.”*

*“Do I get a health savings account? How is that different from health insurance? How do I set aside money for health emergencies?”*

The groups identified other issues of importance. They would like to see more physicians who accept Medicare and Medicaid. They see need for transportation connecting the elderly and those who don’t drive with health care providers (see more below).

### Transportation

Those who live near downtown Greenville see transportation as perhaps the county’s number one issue that needs attention. The lack of affordable public transportation, contributes to poverty, dependence on social services, declining health, lack of housing and crime.

*“They can offer transportation to take people downtown to eat and drink, but they can’t to take people to work.”*

The transportation issue is more complex than a bus route. Community leaders recognize that public transport and private--car and bike--are all part of the solution.

When it comes to public transportation, it is important to support reliable connections between where people work and where they live. This becomes especially problematic in Greenville because the best paying manufacturing jobs are outside the inner-city. Service and manufacturing jobs are also seldom 9-to-5, therefore transportation needs start early and run late.

Even those with cars can find themselves mired in transportation problems. Many of the working poor can't afford a reliable car, which can make them an unreliable worker. If they get behind on their insurance payments and coverage lapses, then it becomes public record and lowers their credit ratings, which in turn affects their ability to get a job, a better car or better housing.

*“People want a better life for themselves and their children, but problems like transportation become major stumbling blocks.”*

*“With the cost of transportation, plus child care, some people find it does not pay to work.”*

The transformation of Greenville is leading to some peculiar health care transportation issues. At one time the two major hospital locations in Greenville were surrounded by lower income neighborhoods. That made it easy for low-income residents to access care--they could walk.

Now those neighborhoods around the hospitals are becoming some of the most desirable and expensive, which is driving some low-income families to move away from their traditional sources of care.

In addition, some essential services are now located in the Patewood area, which is less accessible for those in the inner-city. Both of these trends create problems people have to find ways to solve.

*“I know a woman who was at Patewood and couldn't get home, so she called an ambulance and told them to take her to the ER because it was close to her home.”*

Finally, transportation issues also inhibit some families from living healthier, more engaged lifestyles. If they live in a food desert, an area with no grocery store, then they have to do at least some of their food shopping at convenience stores. It is also less likely they can enroll their children in sports and recreation programs, or travel to parks and playgrounds.

## **Major Observations from the Quantitative Research**

There are a number of major themes and observations prominent in the quantitative research provided by the two health systems. Here are the highlights from both studies:

- Most residents feel good about their own health and the health of their children.
- Residents of Greenville County are generally positive about the health of their community and the resources that are available to them.
- Most are able to visit a doctor when they need to or take their children for care when needed. Those living at low income levels, however, have to be more selective about when they go to the doctor. Those earning less than \$50,000 annually are most likely to say they can go to a doctor *sometimes*.
- Latino residents are less likely to report access to preventative health services, such as hearing and vision screenings.

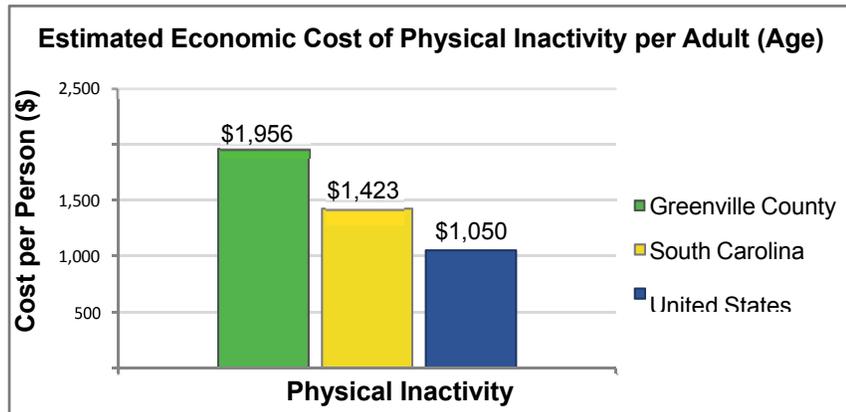
- Greenville adults display the most positivity about programs and services that might be described as traditional health care, such as doctors, hospitals and services that address major physical diseases. They display less confidence about programs and services related to social and behavioral issues, such as homelessness and violence.
- Most residents feel that their community is safe, though many are less positive about roads, sidewalks and street lights. Older residents are most likely to express concern about street safety and transportation.
- Education is the key to health, income potential and quality of life. There is a sharp divide between the outlook and attitudes of those who earn at least a two-year degree and those who do not.
- Life is harder for those at the lowest income levels. For just about every health measure, those at the lowest income levels are the most vulnerable. Black and Latino respondents are most likely to report their annual income is less than \$25,000.
- There are meaningful differences in the way residents from different racial groups experience and view life in the county. The differences are often measured by the intensity with which they respond to some issues. For example, those who are Black or Latino may be less likely to *agree strongly* and more likely to *disagree strongly* with statements about quality of life and health.
- Different ethnic groups display some differences in health concerns. For example, White respondents are more likely to express concern about obesity while Black respondents are more concerned about high blood pressure.
- In the Bon Secours study of community attitudes, the issues most important to many residents are not direct health issues, though all influence health in some manner. The five top priority issues are homelessness, education, crime, transportation and jobs with fair wages. Alcohol and drug abuse ranks sixth in priority.
- Greenville parents report their children eat fewer fresh fruits and vegetables than do parents in surrounding counties
- Excluding those who completed the research online, 85% of respondents have access to the Internet, either at home, work or over their phones. Those most likely to be without internet access are very low income.
- A majority of internet users, and especially those who are younger, are open to the concept of meeting their doctors using internet technologies.

**Exhibit 3: 2013 Greenville County Obesity, Nutrition, and Physical Activity**



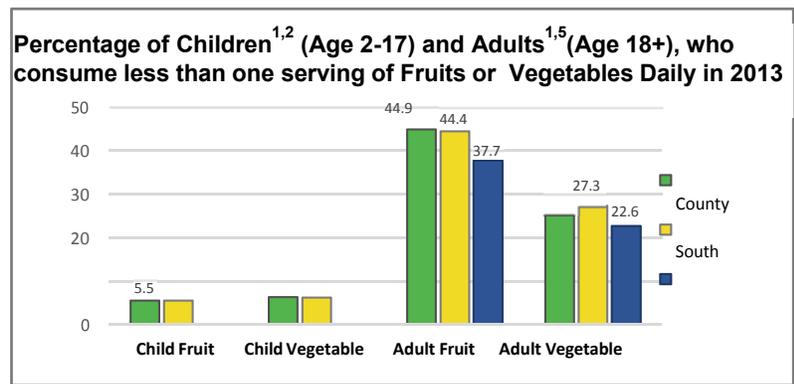
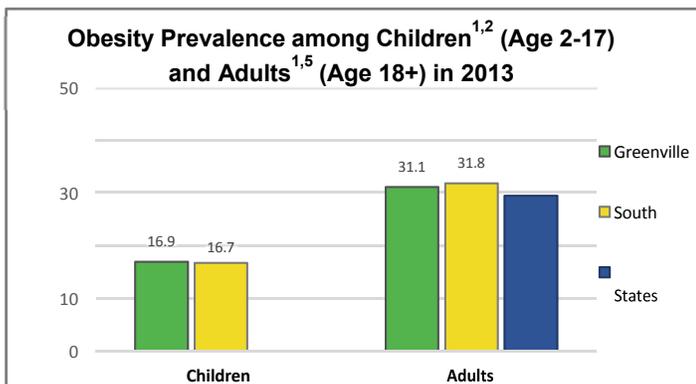
**Physical Inactivity Cost:**

Total Estimated County: \$707,888,296  
 Total Estimated State: \$503,470,671  
 Total Estimated United States: \$75 billion



Source: [www.ecu.edu/picostcalc/sponsor-partner.asp](http://www.ecu.edu/picostcalc/sponsor-partner.asp)

Children (Age 2-17)	Population (96,527)	Greenville	SC <sup>2</sup>	HP 2020 <sup>3</sup>	
Percent Overweight <sup>4</sup> (BMI 85th - 95th percentile)		15.1	14.9	--	
Percent Obese <sup>4</sup> (BMI > 95th percentile)		16.9	16.7	14.5	
Percent 60 minutes or more of physical activity daily		27.6	28.2	--	
Adults (Age 18+)	Population (351,690)	Greenville County <sup>1</sup>	SC <sup>4</sup>	US <sup>4</sup>	HP 2020 Objectives <sup>5</sup>
Percent Overweight <sup>6</sup> (BMI 25 - 29.9)		35.3	34.7	35.4	--
Percent Obese <sup>6</sup> (BMI > 30)		31.1	31.8	29.4	30.5
Percent met weekly physical activity recommendation <sup>7</sup>		48.6	41.1	49.9	47.9



- <sup>1</sup>County-level estimates were based on synthetic estimates by using county-level demographic data combined with South Carolina overweight, obesity, physical activity and fruit and vegetable consumption prevalence values for children using the South Carolina Children's Health Assessment Survey (CHAS). For adults, estimates were based on Behavioral Risk Factor Surveillance Survey (BRFSS) sampling region estimates instead of state level estimates. For more information, please visit <http://www.childhealthdata.org/docs/nsch-docs/local-use-of-state-data-and-synthetic-estimates.pdf>.
- <sup>2</sup>For South Carolina, data from CHAS, ages 2-17.
- <sup>3</sup>Healthy People (HP) provides science-based, 10-year national objectives for improving the health of all Americans. HP has established benchmarks for these objectives and monitored progress over time. For more information, please visit [www.healthypeople.gov](http://www.healthypeople.gov).
- <sup>4</sup>HP 2020 goal for ages 2-19 obesity prevalence.
- <sup>5</sup>Data from BRFSS.
- <sup>6</sup>BMI is calculated by dividing weight (kg) by height<sup>2</sup> (m).
- <sup>7</sup>The physical activity recommendation for adults is at least 150 minutes per week of moderate-intensity, or 75 minutes per week of vigorous-intensity aerobic physical activity or a combination of the moderate and vigorous-intensity physical activity.



#### Division of Chronic Disease Epidemiology



## Exhibit 4: South Carolina - State Nutrition, Physical Activity, and Obesity Profile

The Centers for Disease Control and Prevention's Division of Nutrition, Physical Activity, and Obesity supports the nation's capacity to establish successful and sustainable interventions to support healthy eating and active living. CDC provides support to states, communities, and national partners to implement policy, system, and environmental strategies. This is done through implementation and evaluation guidance, technical assistance, training, surveillance and applied research and partnership development. The goal is to improve dietary quality, increase physical activity, and reduce obesity across multiple settings; such as child care facilities, workplaces, hospitals, medical care facilities, schools, and communities.

Select information on obesity, physical activity, and dietary behaviors as well as specific environmental indicators for South Carolina is provided below.

### Population Statistics

#### State Population of South Carolina<sup>3</sup>

- Estimated total population 2013 = 4,774,839.
- Adults aged 18 years and older = 77.4% of the total population in 2013.
- People younger than 18 years of age = 22.6% of the total population in 2013.

### Adult Statistics

#### Overweight and Obesity<sup>4</sup>

- 34.7% of adults were overweight, with a body-mass index (BMI) of 25-29.9.
- 31.7% of adults were obese, with a BMI of 30 or greater.

#### Dietary Behaviors<sup>4</sup>

- 45.2% of adults reported consuming fruit less than one time daily.

- 26.8% of adults reported consuming vegetables less than one time daily.

#### Physical Activity<sup>4</sup>

- 49.1% of adults participated in 150 minutes or more of aerobic physical activity per week.
- 26.9% of adults reported that during the past month, they had not participated in any physical activity.

### Adolescent Statistics

#### Overweight and Obesity<sup>5</sup>

- 16.8% of adolescents were overweight ( $\geq 85^{\text{th}}$  and  $< 95^{\text{th}}$  percentiles for BMI by age and sex, based on reference data).
- 13.9% of adolescents were obese ( $\geq 95^{\text{th}}$  percentile BMI by age and sex, based on reference data).

#### Dietary Behaviors

- 45.7% of students in grades 9-12 ate fruit or drank 100% fruit juices less than one time daily.<sup>6</sup>
- 45.6% of students in grades 9-12 consumed vegetables less than one time daily.<sup>7</sup>
- 77.9% of adolescents drank a can, bottle, or glass of soda or pop (not including diet soda or diet pop, during the seven days before the survey).<sup>5</sup>

#### Physical Activity<sup>5</sup>

- 76.2% of adolescents were not physically active at least 60 minutes per day on all seven days.
- 19.6% of adolescents did not participate in at least 60 minutes of physical activity on at least one day during the seven days before the survey.
- 33.3% of adolescents watched television three or more hours per day on an average school day.

**Exhibit 4: External References**

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