FirstHealth
Richmond Memorial Hospital

Community Health Needs Assessment 2013
FIRSTHEALTH RICHMOND MEMORIAL HOSPITAL
COMMUNITY HEALTH NEEDS ASSESSMENT

Introduction to FirstHealth of the Carolinas
FirstHealth of the Carolinas (FirstHealth) is a private, non-profit [501(c)(3)], comprehensive health care delivery and financing system that serves approximately 211,000 individuals in a predominantly rural area of the mid-Carolinas. The system is comprised of three hospitals to include FirstHealth Moore Regional Hospital, FirstHealth Richmond Memorial Hospital and FirstHealth Montgomery Memorial Hospital, (licensed for a total of 582 beds), seven FirstHealth Family Care Centers, six health and fitness centers and three dental clinics for indigent children. FirstHealth also operates a retail pharmacy, an ambulance system in North Carolina and South Carolina, home health and hospice care and critical care transport services. To ensure the provision of high quality health care, FirstHealth hospitals hold all major accreditations and have an active medical staff of 290; in excess of 94% are board certified. Across the system’s three hospitals, FirstHealth logged 26,333 discharges in 2012 and 108,476 visits to hospital emergency departments. Additionally, 39,803 visits were made to FirstHealth Family Care Centers and 19,390 patients were served by EMS in 2012. FirstCarolinaCare Insurance Company, an additional component of the community health care infrastructure, serves more than 277 employers and covers over 17,000 members. FirstHealth employs 4,500 individuals in the region.

Through a formalized Community Benefit Program, FirstHealth responds to the needs of the communities it serves. During fiscal year 2012, FirstHealth met community needs in the areas of financial assistance, service delivery and support of other community efforts with a value of approximately $33.8 million. In addition, more than 109,000 employee and volunteer hours were dedicated to implementing projects and providing services as part of FirstHealth’s Community Benefit Program. FirstHealth Richmond Memorial Hospital’s community benefit total for fiscal year 2012 was $2.9 million.

Based on a commitment to implement innovative services designed to care for the region’s most vulnerable populations, FirstHealth also provides mobile health screenings, school nursing, school-based health clinic services, substance abuse counseling, mental health care and chronic disease management services, as well as a broad range of behavioral health/lifestyle modification programs.

Description and History of FirstHealth Richmond Memorial Hospital
A 99-bed community hospital, FirstHealth Richmond Memorial, a Division of FirstHealth Moore Regional Hospital, serves the emergency, inpatient, outpatient and acute-care needs of the
people of Richmond County and the surrounding area, regardless of insured status. The hospital first opened in 1952 and was originally certified for 50 beds. Today, Richmond Memorial offers medical and surgical hospital services as well as unique specialized services including a Wound Care and Hyperbaric Center specializing in the treatment of diabetic foot ulcers, thermal burns, crush injuries, pressure ulcers and other non-healing wounds. FirstHealth Richmond Memorial Hospital successfully renovated 54 patient rooms in 2012, and has also undertaken renovations to the facilities emergency department as well as other areas of the facility in recent years.

**Richmond County Demographics**

For the purposes of the FirstHealth Richmond Memorial Hospital Community Health Needs Assessment, community is defined as Richmond County, which is the county in which the hospital is located. However, Richmond Memorial Hospital also serves individuals in Montgomery and Hoke counties, hence county level data is considered for the other two counties through the Community Health Needs Assessment Survey chartered by FirstHealth through Professional Research Consultants (PRC survey) in 2007 and 2011 (additional details to follow). The target audience reflects an overall representation of the community served by this hospital facility.

Richmond County is predominantly a rural county with a population of 46,639, of which 14.2 percent of the population is over the age of 65 and 25 percent is under the age of 18. Richmond County is 63 percent White, 31 percent Black, 1 percent Asian/Pacific Islander, 3 percent American Indian and 2 percent other. Ninety-four percent of individuals are Non-Hispanic/Latino and 6.3 percent are Hispanic/Latino. According to the North Carolina State Center for Health Statistics, Richmond County has 18 to 30 percent of the population living at or below the Federal Poverty Level (FPL). According to the PRC survey in 2011, 52.8 percent of the population lives at or below 200 percent of the Federal Poverty Level (FPL) and 29 percent of those individuals are uninsured. Additional demographic data are included in the Community Health Needs Assessment conducted in partnership with the Richmond County Health Department.

**Community Health Needs Assessment Background Information**

**First-In-Health Vision and PRC Survey**

FirstHealth’s core purpose is “To Care For People.” The organization’s mission is “Working Together, First-In-Quality, First-In-Health.” As such, FirstHealth is committed to not only treating patients in the hospital setting, but reaching beyond the hospital walls to influence population health and provide health prevention focused interventions.
As part of the First-In-Health portion of the mission, FirstHealth has conducted Community Health Needs Assessment surveys in 1999, 2001, 2003, 2007 and 2011. These surveys are conducted via random-digit dial phone calls with questions that mirror the Behavioral Risk Factor Surveillance Survey at the state and national levels. FirstHealth contracts with Professional Research Consultants for this survey, hence it is referred to as the PRC survey. This survey permits direct comparisons of county-level data to state data for trending and monitoring. FirstHealth queries data through an online report system. This technology enables the system to cross-tab various data points. The 2011 PRC report is viewed as the basis for the Community Health Needs Assessment (reference full report in Attachment A).

In addition to community health data collection, FirstHealth realized the need to formally measure community health indicator goals as part of the First-In-Health 2020 vision. As such, the system in partnership with Wake Forest University developed a process for tracking and monitoring the First-In-Health goals through the designation of nine health categories and 58 health indicators. The health categories and the number of health indicators monitored within each category include:

- Economic, Social and Educational Status (seven indicators)
- Chronic Disease (nine indicators)
- Adult Prevention and Primary Care (nine indicators)
- Childhood Prevention and Primary Care (six indicators)
- Mother and Child Health (five indicators)
- Behavioral Health (seven indicators)
- Community Assets (six indicators)
- Communicable Diseases (four indicators)
- Safety (five indicators)

The data sources for the 2020 vision health indicators include the PRC survey and the North Carolina State Center for Health Statistics. In recognition of the social determinants of health, FirstHealth did not just include direct health outcomes, but also included measures such as literacy, high school graduation rates and percent of individuals living in poverty. The detailed charts can be referenced in Attachment B of this document. The charts include trending from 2007 to 2011, and represent progress to date for achieving the 2020 vision goal.

As part of the vision, in 2005, FirstHealth formed community collaborative groups in four counties, one of which is Richmond County. The First-In-Health Richmond County 2020 Task Force includes representatives from media, the school system, the health department, housing authority, school nurse, local towns, community college, businesses, the health care system and individuals at-large. The 2020 task force is utilized to compare and contrast data to determine three priority health focus areas for future interventions. The task force also serves as a key informant group for part of the Community Health Assessment process the Richmond County
Health Department. This task force will assist and support the implementation of interventions and initiatives in action plans for both the health system and the health department.

This group utilizes three data sources to include the PRC data, which provides behavioral and prevalence data, the First-In-Health 2020 data charts which provides a comprehensive overview of the health of the community, and the health department’s community health assessment (discussed below), which represents perception data based on community individual’s opinions. In 2011, the 2020 Task Force adopted four priority areas to include obesity, diabetes, hypertension and tobacco (with intentions of working on policy and cessation services to impact lung cancer; the number one cancer).

Richmond County Health Department Community Health Assessment Collaborative Effort
FirstHealth Richmond Memorial Hospital and the Richmond County Health Department partnered to develop the health department county level community health assessment tool. The assessment tool (reference Attachment E) was developed to determine what individuals in the community perceive as the health issues in the community. The survey was administered utilizing GIS technology to conduct a door-to-door survey in May 2013. The survey process is discussed in the executive summary of the assessment, referenced in Attachment D. In addition to the survey, key informant interviews and focus groups will be hosted by the health department in Fall 2013 to further clarify community perceptions. And the health department, per state guidelines, will develop action plans for three key health issues.

The health department, the University of North Carolina (UNC) School of Public Health, the Community Care of the Sandhills (CCS) and FirstHealth Richmond Memorial Hospital co-hosted a Richmond County 2013 Public Health Summit in May 2013. The purpose of the summit was to share health status data with the area providers (physicians, nurse practitioners, physician assistants) with the core purpose of garnering support from the medical community to address the chronic disease rates and health disparities in the county. Data demonstrate that Richmond County has the highest morality rates in the region for cancer (with lung cancer being the top cause of death), prostate cancer, heart disease, stroke, chronic lower respiratory disease, suicide and diabetes. Data also identified health disparities such as diabetes in minority women (death rate for minority women 70.9 compared to white women at 27.4), heart disease in minority females and males (295.1 minority females; 215.6 white females; 503 minority males; 332 white males) and strokes in minority males (67 minority males; 59 white males). Additional disparity data is available in the attached PowerPoint presentation entitled 2013 Richmond County Public Health Summit by John Graham, PhD (reference Attachment F).
Combined Data Results

The hospital will support the health department in their efforts to identify key priorities for their action plans. However, in addition, the hospital has reviewed the preliminary data to determine if the results align with health issues identified in the PRC survey and to determine action plan areas for FirstHealth Richmond Memorial Hospital.

The following table represents the initial results from the May 2013 survey.

Richmond County Community Health Assessment (CHA) with Richmond County Health Department, May 2013 (Perception Data)

<table>
<thead>
<tr>
<th>Five Health Problems Greatest Impact in Richmond County</th>
<th>Five Unhealthy Behaviors with Greatest Impact on Community</th>
<th>Quality of Life Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>Illegal drug abuse</td>
<td>Unemployment</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Alcohol abuse</td>
<td>Low income/poverty</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>Smoking and tobacco use</td>
<td>Homelessness</td>
</tr>
<tr>
<td>Obesity/Overweight</td>
<td>Lack of exercise</td>
<td>Lack of health insurance</td>
</tr>
<tr>
<td>Aging problems</td>
<td>Drunk driving</td>
<td>Affordability of services</td>
</tr>
</tbody>
</table>

The following table depicts the alignment of results from the PRC survey, the Richmond County CHA and Health Disparities data:

Summary of PRC, Richmond CHA and Disparities Findings

<table>
<thead>
<tr>
<th>PRC Survey (2011) and First-In-Health 2020 Task Force</th>
<th>Health Problems Greatest Impact in Richmond County</th>
<th>Health Disparities Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>Cancer</td>
<td>Minority females - Diabetes</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Diabetes</td>
<td>Minority males and females – Heart Disease</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>Heart Disease</td>
<td>Minority males and females – Cancer</td>
</tr>
<tr>
<td>Obesity/Overweight</td>
<td>Obesity/Overweight</td>
<td>Minority males – Stroke</td>
</tr>
</tbody>
</table>
Through this multifaceted approach of reviewing the PRC assessment data, the First-In-Health 2020 data, health disparities data and the Richmond County Community Health Assessment data, FirstHealth Richmond Memorial Hospital has identified health focus areas for implementation plans. These include:

- **Care transitions**
  - Richmond Memorial Hospital will develop an action plan focusing on care transitions for high-risk readmission patients to include chronic disease conditions such as congestive heart failure and diabetes.
- **Wellness and Prevention efforts to address diabetes, obesity, cardiovascular disease, tobacco use and opiate abuse/misuse**
  - Data demonstrate that Richmond County has higher rates than the state averages for diabetes prevalence, tobacco use and obesity and the community perceives these as health issues. Addressing these three chronic disease conditions through preventive health programs and health education classes will have an impact on cardiovascular outcomes.
  - Feedback from the community, medical providers and law enforcement indicate a need to address prescription drug abuse/misuse issues.
- **Access to care for uninsured**
  - There are high rates of uninsured in Richmond County. The hospital will develop an implementation plan with consideration for increasing access to primary care and developing partnerships to assist with linkages to services and preventive health programs.

In collaboration with key stakeholders and partners, and with input from the FirstHealth Richmond Memorial Hospital Board of Directors and the Richmond First-In-Health 2020 Task Force, the hospital will develop implementation plans for the above three areas. Efforts will focus on targeting the most at-risk populations by identifying high-risk readmission patients, and also working within the community setting to focus on prevention and linkage to care.

The hospital is not developing implementation plans around areas such as economic development, as the Chamber of Commerce is addressing this issue through industry recruitment, and high school graduation/literacy rates, as the school system is the lead agency. FirstHealth Richmond Memorial Hospital is also aware the health department is taking the lead on addressing teen pregnancy prevention, which although it did not make the top five list, it was on the top 10 list of concerns of citizens, and Richmond County has the highest rate of teen pregnancy in the state of North Carolina. Additionally, the hospital will not develop an implementation plan focused on poverty. However, FirstHealth recognizes Richmond County has the state designation as a Tier One County, which indicates a high level of poverty, but also
provides opportunity for funding to support health initiatives with a focus on issues such as access to care.

The information contained in this report is current as of July 2013, with updates to the assessment anticipated every three years in accordance with the Patient Protection and Affordable Care Act and Internal Revenue Code 501 (r).
ATTACHMENTS

Attachment A: Professional Research Consultants Community Health Needs Assessment, 2011/2012

Attachment B: Richmond County First-In-Health 2020 charts

Attachment C: PRC Richmond specific measures

Attachment D: Richmond Community Health Assessment Executive Summary, May 2013

Attachment E: Richmond Community Health Assessment Tool

Attachment F: 2013 Richmond County Public Health Summit Slide Presentation, May 2013, John Graham, PhD
Attachment A

PRC Report, 2011
2011 PRC
Community Health Needs Assessment

Sponsored by
FirstHealth of the Carolinas

Hoke, Montgomery, Moore & Richmond Counties
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INTRODUCTION
Project Overview

Project Goals

This Community Health Needs Assessment — a follow-up to similar studies conducted in 1999, 2003 and 2007 — is a systematic, data-driven approach to determining the health status, behaviors and needs of residents in the service area of FirstHealth of the Carolinas. Subsequently, this information may be used to inform decisions and guide efforts to improve community health and wellness.

A Community Health Needs Assessment provides the information so that communities may identify issues of greatest concern and decide to commit resources to those areas, thereby making the greatest possible impact on community health status. This Community Health Needs Assessment will serve as a tool toward reaching three basic goals:

- **To improve residents' health status, increase their life spans, and elevate their overall quality of life.** A healthy community is not only one where its residents suffer little from physical and mental illness, but also one where its residents enjoy a high quality of life.

- **To reduce the health disparities among residents.** By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at-risk for various diseases and injuries. Intervention plans aimed at targeting these individuals may then be developed to combat some of the socio-economic factors which have historically had a negative impact on residents’ health.

- **To increase accessibility to preventive services for all community residents.** More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans, and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

This assessment was conducted on behalf of FirstHealth of the Carolinas by Professional Research Consultants, Inc. (PRC). PRC is a nationally-recognized healthcare consulting firm with extensive experience conducting Community Health Needs Assessments such as this in hundreds of communities across the United States since 1994.

Methodology

**PRC Community Health Survey**

**Survey Instrument**

The survey instrument used for this study is based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by the FirstHealth of
the Carolinas and PRC, and is similar to the previous survey used in the region, allowing for data trending.

Community Defined for This Assessment

The study area for the survey effort (referred to as the “Total Area” in this report) includes the primary residential ZIP Codes of Hoke, Montgomery, Moore and Richmond counties in North Carolina. A geographic description is illustrated in the following map.

Sample Approach & Design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the *PRC Community Health Survey*. Thus, to ensure the best representation of the population surveyed, a telephone interview methodology — one that incorporates both landline and cell phone interviews — was employed. The primary advantages of telephone interviewing are timeliness, efficiency and random-selection capabilities.

The sample design used for this effort consisted of 1,316 interviews in all, including a random sample of 1,200 individuals age 18 and older in the Total Area, as well as an additional 116 “oversample” interviews among African American and among Hispanic residents to ensure better sample sizes for these populations (this resulted in a total of 173 interviews conducted among African American respondents, and 143 among Hispanic respondents). The final distribution by county was as follows: 561 interviews in Moore County; 349 in Richmond County; 234 in Hoke County; and 172 in Montgomery County.

Once the interviews were completed, these were weighted in proportion to the actual population distribution so as to appropriately represent the Total Area as a whole. All administration of the surveys, data collection and data analysis was conducted by Professional Research Consultants, Inc. (PRC).
Sampling Error

For statistical purposes, the maximum rate of error associated with a sample size of 1,316 respondents is ±2.6% at the 95 percent level of confidence.

Expected Error Ranges for a Sample of 1,316 Respondents at the 95 Percent Level of Confidence

Note: ● The “response rate” (the percentage of a population giving a particular response) determines the error rate associated with that response.
   Examples: ● A “95 percent level of confidence” indicates that responses would fall within the expected error range on 95 out of 100 trials.
            ● If 10% of respondents said “yes,” one could be certain with a 95 percent level of confidence that between 7.4% and 12.6% of the total population would respond “yes” if asked this question.

Sample Characteristics

To accurately represent the population studied, PRC strives to minimize bias through application of a proven telephone methodology and random-selection techniques. And, while this random sampling of the population produces a highly representative sample, it is a common and preferred practice to “weight” the raw data to improve this representativeness even further. This is accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (poststratification), so as to eliminate any naturally occurring bias. Specifically, once the raw data are gathered, respondents are examined by key demographic characteristics (namely gender, age, race, ethnicity, and poverty status) and a statistical application package applies weighting variables that produce a sample which more closely matches the population for these characteristics. Thus, while the integrity of each individual’s responses is maintained, one respondent’s responses may contribute to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly oversampled, may contribute the same weight as 0.9 respondents.

The following charts outline the characteristics of the Total Area sample for key demographic variables, compared to actual population characteristics revealed in census data. [Note that the sample consisted solely of area residents age 18 and older; data on children were given by proxy by the person most responsible for that child’s healthcare needs, and these children are not represented demographically in this chart.]
Further note that the poverty descriptions and segmentation used in this report are based on administrative poverty thresholds determined by the US Department of Health & Human Services. These guidelines define poverty status by household income level and number of persons in the household (e.g., the 2011 guidelines place the poverty threshold for a family of four at $22,350 annual household income or lower). In sample segmentation: “low income” refers to community members living in a household with defined poverty status or living just above the poverty level, earning up to twice the poverty threshold; “mid/high income” refers to those households living on incomes which are twice or more the federal poverty level.

The sample design and the quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

**Benchmark Data**

**Trending**

Similar surveys were administered in the region in 1999, 2003 and 2007 by PRC on behalf of FirstHealth of the Carolinas. Trending data, as revealed by comparison to prior survey results, are provided throughout this report whenever available. Historical data for secondary data indicators are also included for the purposes of trending.

**North Carolina Risk Factor Data**

Statewide risk factor data are provided where available as an additional benchmark against which to compare local survey findings; these data are reported in the most recent BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trend Data published by the Centers for Disease Control and Prevention and the US Department of Health & Human Services. State-level vital statistics are also provided for comparison of secondary data indicators.

**Nationwide Risk Factor Data**

Nationwide risk factor data, which are also provided in comparison charts, are taken from the 2011 PRC National Health Survey; the methodological approach for the national study is identical to that employed in this assessment, and these data may be generalized to...
Healthy People 2020

Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. The Healthy People initiative is grounded in the principle that setting national objectives and monitoring progress can motivate action. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

- Encourage collaborations across sectors.
- Guide individuals toward making informed health decisions.
- Measure the impact of prevention activities.

Healthy People 2020 is the product of an extensive stakeholder feedback process that is unparalleled in government and health. It integrates input from public health and prevention experts, a wide range of federal, state and local government officials, a consortium of more than 2,000 organizations, and perhaps most importantly, the public. More than 8,000 comments were considered in drafting a comprehensive set of Healthy People 2020 objectives.

Information Gaps

While this assessment is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community’s health needs.

For example, certain population groups — such as the homeless, institutionalized persons, or those who only speak a language other than English or Spanish — are not represented in the survey data. Other population groups — for example, pregnant women, lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups — might not be identifiable or might not be represented in numbers sufficient for independent analyses.

In terms of content, this assessment was designed to provide a comprehensive and broad picture of the health of the overall community. However, there are certainly a great number of medical conditions that are not specifically addressed.
Summary of Findings

Areas of Opportunity for Community Health Improvement

The following “health priorities” represent recommended areas of intervention, based on the information gathered through this Community Health Needs Assessment and the guidelines set forth in Healthy People 2020. From these data, opportunities for health improvement exist in the region with regard to the following health areas (see also the summary tables presented in the following section).

These areas of concern are subject to the discretion of area providers, the steering committee, or other local organizations and community leaders as to actionability and priority.

<table>
<thead>
<tr>
<th>Areas of Opportunity Identified Through This Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to Health Services</strong></td>
</tr>
<tr>
<td>• Healthcare Insurance Availability &amp; Coverage</td>
</tr>
<tr>
<td>• Healthcare Insurance Instability</td>
</tr>
<tr>
<td>• Cost of Prescription Medication</td>
</tr>
<tr>
<td>• Perceived Need for More Local Physicians</td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
</tr>
<tr>
<td>• Prevalence of Diabetes</td>
</tr>
<tr>
<td><strong>Disability</strong></td>
</tr>
<tr>
<td>• Activity Limitations</td>
</tr>
<tr>
<td><strong>Heart Disease &amp; Stroke</strong></td>
</tr>
<tr>
<td>• Hypertension</td>
</tr>
<tr>
<td>• High Blood Cholesterol</td>
</tr>
<tr>
<td><strong>Nutrition &amp; Weight Status</strong></td>
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<tr>
<td>• Overweight &amp; Obesity (Adults &amp; Children)</td>
</tr>
<tr>
<td>• Fruit/Vegetable Consumption</td>
</tr>
<tr>
<td><strong>Prevention Services</strong></td>
</tr>
<tr>
<td>• Cervical Cancer Screening</td>
</tr>
<tr>
<td>• Senior Flu Shots</td>
</tr>
<tr>
<td><strong>Tobacco Use</strong></td>
</tr>
<tr>
<td>• Current Smokers</td>
</tr>
<tr>
<td>• Smoking Cessation</td>
</tr>
</tbody>
</table>
Summary Tables: Comparisons With Benchmark Data

The following tables provide an overview of indicators in the Total Area, including comparisons among the individual communities, as well as trend data. These data are grouped to correspond with the Focus Areas presented in Healthy People 2020.

Reading the Summary Tables

■ In the following charts, Total Area results are shown in the larger, blue column.

■ The green columns [to the left of the Total Area column] provide comparisons among the four counties, identifying differences for each as “better than” (☉), “worse than” (☉), or “similar to” (☉) the combined opposing areas.

■ The columns to the right of the Total Area column provide trending, as well as comparisons between the Total Area and any available state and national findings, and Healthy People 2020 targets. Again, symbols indicate whether the Total Area compares favorably (☉), unfavorably (☉), or comparably (☉) to these external data.

Note that blank table cells signify that data are not available or are not reliable for that area and/or for that indicator.

TREND SUMMARY
(Current vs. Baseline Data)
Trends represent significant changes since 1999 (or earliest available).
<table>
<thead>
<tr>
<th>Access to Health Services</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. NC</th>
<th>vs. US</th>
<th>vs. HP2020</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Perceive Healthcare Coverage to be &quot;Very Important&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Employed] Participate in Employer's Healthcare Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>74.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Employed] Employer Offers Healthcare Coverage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [65+] With Medicare Supplement Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67.9</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>% [Insured] Went Without Coverage in Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Age 18-64] Lack Health Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Ease of Obtaining Medical Care is &quot;Fair/Poor&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Able to Obtain an Appt When Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>89.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Cost Prevented Getting Prescription in Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Preventive Routine Medical Care is &quot;Very Important&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>83.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Had Difficulty Obtaining Routine Medical Care/Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Difficulty Getting Medical Appt for Child/Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Have a Regular Source for Medical Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued next page)
<table>
<thead>
<tr>
<th>Access to Health Services (continued)</th>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>% Most Recent Routine Medical Appt Was &quot;Fair/Poor&quot;</td>
<td>🌲 11.4</td>
<td>🌲 5.9</td>
</tr>
<tr>
<td>% Treated w/Respect During Recent Routine Healthcare Visit</td>
<td>🌲</td>
<td>🌲</td>
</tr>
<tr>
<td>% Staff Understood Health Problems/Recent Routine Visit</td>
<td>🌬 96.2</td>
<td>🌬 96.7</td>
</tr>
<tr>
<td>% Problem Was Taken Care Of/Most Recent Visit</td>
<td>🌬 92.8</td>
<td>🌬 92.5</td>
</tr>
<tr>
<td>% &quot;Very Satisfied&quot; w/Overall Quality of Healthcare</td>
<td>🌬 43.0</td>
<td>🌬 50.3</td>
</tr>
<tr>
<td>% Perceive a Need for More Doctors in the Community</td>
<td>🌬 41.7</td>
<td>🌬 45.3</td>
</tr>
<tr>
<td>% Would Use Case Management Svcs if Available</td>
<td>🌬 63.8</td>
<td>🌬 58.0</td>
</tr>
<tr>
<td>% Unable to Obtain Emergency Svcs When Needed</td>
<td>🌬 2.6</td>
<td>🌬 5.7</td>
</tr>
<tr>
<td>% Member of HH Received Emergency Care/Past Year</td>
<td>🌬 36.3</td>
<td>🌳 29.6</td>
</tr>
</tbody>
</table>

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### Cancer

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Overall</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Men 50+] Prostate Exam in Past 2 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Women 50-74] Mammogram in Past 2 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Women 21-65] Pap Smear in Past 3 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Age 50+] Sigmoid/Colonoscopy Ever</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Age 50+] Blood Stool Test in Past 2 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Age 50-75] Colorectal Cancer Screening</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Diabetes

<table>
<thead>
<tr>
<th>Diabetes</th>
<th>Overall</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Diabetes/High Blood Sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Diagnosed as Borderline/Pre-Diabetic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Blood Sugar Check in the Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>General Health Status</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>TEND</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>% &quot;Fair/Poor&quot; Physical Health</td>
<td>16.0</td>
<td>23.2</td>
<td>17.1</td>
<td>27.3</td>
<td>20.3</td>
<td>21.9</td>
</tr>
<tr>
<td>% Activity Limitations</td>
<td>18.6</td>
<td>16.9</td>
<td>21.6</td>
<td>24.1</td>
<td>21.0</td>
<td>21.3</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Heart Disease &amp; Stroke</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>TEND</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Blood Pressure Checked in Past 2 Years</td>
<td>99.1</td>
<td>92.1</td>
<td>95.8</td>
<td>93.8</td>
<td>95.3</td>
<td>95.5</td>
</tr>
<tr>
<td>% Told Have High Blood Pressure (Ever)</td>
<td>35.9</td>
<td>39.1</td>
<td>38.3</td>
<td>46.3</td>
<td>39.9</td>
<td>32.9</td>
</tr>
<tr>
<td>% [HBP] Taking Action to Control High Blood Pressure</td>
<td>93.2</td>
<td>89.4</td>
<td>94.2</td>
<td>90.4</td>
<td>92.3</td>
<td>80.2</td>
</tr>
<tr>
<td>% Cholesterol Checked in Past 5 Years</td>
<td>92.8</td>
<td>89.7</td>
<td>91.1</td>
<td>91.0</td>
<td>91.2</td>
<td>88.4</td>
</tr>
<tr>
<td>% Told Have High Cholesterol (Ever)</td>
<td>32.7</td>
<td>34.2</td>
<td>37.9</td>
<td>38.6</td>
<td>36.6</td>
<td>27.3</td>
</tr>
<tr>
<td>% [HBC] Taking Action to Control High Blood Cholesterol</td>
<td>89.9</td>
<td>85.4</td>
<td>87.9</td>
<td>79.0</td>
<td>85.6</td>
<td>67.7</td>
</tr>
<tr>
<td>% 1+ Cardiovascular Risk Factor</td>
<td>87.4</td>
<td>87.3</td>
<td>85.8</td>
<td>95.8</td>
<td>88.8</td>
<td>89.2</td>
</tr>
</tbody>
</table>

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### Immunization & Infectious Diseases

<table>
<thead>
<tr>
<th>Each County vs. Others</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Age 65+] Flu Shot in Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Mental Health & Mental Disorders

<table>
<thead>
<tr>
<th>Each County vs. Others</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Symptoms of Chronic Depression (2+ Years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Area vs. Benchmarks</th>
<th>Total Area vs. Benmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>vs. NC</td>
<td>vs. US</td>
</tr>
<tr>
<td>64.7</td>
<td>69.7</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.
<table>
<thead>
<tr>
<th>Nutrition &amp; Weight Status</th>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>% Eat 2+ Servings of Fruit per Day</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>27.6</td>
<td>26.2</td>
</tr>
<tr>
<td>% Eat 3+ Servings of Vegetables per Day</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>10.8</td>
<td>11.4</td>
</tr>
<tr>
<td>% Eat 2+ Servings of Whole Grain Bread per Day</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>20.8</td>
<td>24.4</td>
</tr>
<tr>
<td>% Consumed 1+ Sugar-Sweetened Beverage Yesterday</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>73.3</td>
<td>56.3</td>
</tr>
<tr>
<td>% &lt;4 Days/Week Eating Meals at Home</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>10.7</td>
<td>11.7</td>
</tr>
<tr>
<td>% Can Purchase Healthy Foods in Walking Distance of Home</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>23.3</td>
<td>20.7</td>
</tr>
<tr>
<td>% Healthy Weight (BMI 18.5-24.9)</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>30.4</td>
<td>27.0</td>
</tr>
<tr>
<td>% Overweight</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>68.2</td>
<td>71.8</td>
</tr>
<tr>
<td>% Obese</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>31.2</td>
<td>36.8</td>
</tr>
<tr>
<td>% [Overweights] Health Professional Has Advised Weight Control</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>42.1</td>
<td>53.3</td>
</tr>
<tr>
<td>% Children [Age 5-17] Overweight</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>43.0</td>
<td>28.7</td>
</tr>
<tr>
<td>% Children [Age 5-17] Obese</td>
<td>🌻</td>
<td>🌻</td>
</tr>
<tr>
<td></td>
<td>23.4</td>
<td>12.8</td>
</tr>
</tbody>
</table>

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### Oral Health

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Age 18+] Dental Visit in Past Year</td>
<td>72.3</td>
<td>61.3</td>
<td>70.7</td>
<td>54.6</td>
</tr>
</tbody>
</table>

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### Physical Activity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% No Leisure-Time Physical Activity</td>
<td>22.7</td>
<td>32.3</td>
<td>21.0</td>
<td>30.4</td>
</tr>
<tr>
<td>% Sedentary</td>
<td>49.2</td>
<td>57.9</td>
<td>55.1</td>
<td>63.3</td>
</tr>
<tr>
<td>% Workplace is Within Walking Distance of Home</td>
<td>11.0</td>
<td>18.6</td>
<td>20.4</td>
<td>21.3</td>
</tr>
<tr>
<td>% Park/Playground is Within Walking Distance of Home</td>
<td>23.6</td>
<td>31.5</td>
<td>37.7</td>
<td>31.2</td>
</tr>
</tbody>
</table>

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### Quality of Life

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Community is a &quot;Fair/Poor&quot; Place to Live</td>
<td>16.5</td>
<td>27.1</td>
<td>9.6</td>
<td>22.2</td>
</tr>
<tr>
<td>% Feel Able to Affect Quality of Community Life</td>
<td>76.1</td>
<td>71.9</td>
<td>79.1</td>
<td>72.8</td>
</tr>
<tr>
<td>% Have Access to the Internet for Personal Use</td>
<td>85.9</td>
<td>71.6</td>
<td>79.6</td>
<td>74.0</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Respiratory Diseases</th>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>% Adults Asthma (Ever Diagnosed)</td>
<td>18.4</td>
<td>9.7</td>
</tr>
<tr>
<td>Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance Abuse</th>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>% Current Drinker</td>
<td>43.6</td>
<td>35.2</td>
</tr>
<tr>
<td>% Chronic Drinker (Average 2+ Drinks/Day)</td>
<td>5.6</td>
<td>2.4</td>
</tr>
<tr>
<td>% Binge Drinker (Single Occasion - 5+ Drinks Men, 4+ Women)</td>
<td>11.3</td>
<td>9.6</td>
</tr>
<tr>
<td>% Advised to Reduce Alcohol Consumption/Past Yr</td>
<td>0.7</td>
<td>4.5</td>
</tr>
<tr>
<td>% Prescription Drug Abuse by Member of HH/Past Year</td>
<td>3.9</td>
<td>2.8</td>
</tr>
<tr>
<td>% Illegal Drug Use by Member of HH/Past Year</td>
<td>5.0</td>
<td>2.6</td>
</tr>
<tr>
<td>% Ever Sought Help for Alcohol or Drug Problem</td>
<td>4.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Tobacco Use

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Current Smoker</td>
<td>🌼</td>
<td>🌼</td>
<td>🌿</td>
<td>🌼</td>
</tr>
<tr>
<td></td>
<td>24.9</td>
<td>20.7</td>
<td>17.9</td>
<td>31.2</td>
</tr>
<tr>
<td>% [Smokers] Have Quit Smoking 1+ Days in Past Year</td>
<td>🌼</td>
<td>🌼</td>
<td>🌿</td>
<td>🌼</td>
</tr>
<tr>
<td></td>
<td>50.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Vision

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Eye Exam in Past 2 Years</td>
<td>🌼</td>
<td>🌼</td>
<td>🌿</td>
<td>🌼</td>
</tr>
<tr>
<td></td>
<td>65.4</td>
<td>54.7</td>
<td>65.4</td>
<td>59.0</td>
</tr>
</tbody>
</table>

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COMMUNITY PERCEPTIONS
Community as a Place to Live

A total of 56.6% of Total Area adults rate their community as an “excellent” or “very good” place in which to live.

- Another 26.9% gave “good” ratings of their community as a place to live.

**Rating of the Community as a Place to Live**
(Total Area, 2011)

- Excellent: 26.6%
- Very Good: 30.0%
- Good: 26.9%
- Fair: 11.0%
- Poor: 5.4%

However, 16.4% of Total Area adults believe that their community is a “fair” or “poor” place in which to live.

- Lowest in Moore County; unfavorably high in Montgomery and Richmond counties.

Marks a statistically significant decrease (improvement) over time.

**Perceive the Community to be a “Fair” or “Poor” Place to Live**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>16.5%</td>
<td>27.1%</td>
<td>9.6%</td>
<td>22.2%</td>
<td>15.4%</td>
</tr>
<tr>
<td>2007</td>
<td>19.6%</td>
<td>19.6%</td>
<td>9.6%</td>
<td>22.2%</td>
<td>19.6%</td>
</tr>
<tr>
<td>2011</td>
<td>16.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 7]

**Notes:**
- Asked of all respondents.
Adults more likely to report that the community is a “fair” or “poor” place in which to live include:

- Those under age 65.
- Residents living at lower incomes.
- Blacks and Hispanics.
- Other differences within demographic groups, as illustrated in the following chart, are not statistically significant.

### Perceive the Community to be a “Fair” or “Poor” Place to Live
(Total Area, 2011)

![Chart showing percentage of adults perceiving the community as a “fair” or “poor” place to live by gender, age groupings, income, and race/ethnicity.]

**Source:** 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 7]

**Notes:**
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Ability to Affect Community Life

Three-fourths (76.0%) of Total Area adults feel that they, as individuals, are able to affect the quality of life in their own community.

- Highest in Moore County.
- No statistically significant change has occurred when comparing to previous survey results.

Feel Able to Affect Quality of Community Life

Adults less likely to feel able to affect community life include:

- Men.
- Young adults (those under 40).
- Residents living at lower incomes.
- Whites, Hispanics and "Other" races.

Feel Able to Affect Quality of Community Life
(Total Area, 2011)
GENERAL HEALTH STATUS
Overall Health Status

Self-Reported Health Status

Nearly one-half (48.2%) of Total Area adults rates their overall health as “excellent” or “very good.”

- Another 31.5% gave “good” ratings of their overall health.

![Self-Reported Health Status](image)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 10]
Notes: ● Asked of all respondents.

However, 20.3% of Total Area adults believe that their overall health is “fair” or “poor.”

- Similar to statewide findings.
- Less favorable than the national percentage.
- More favorable in Hoke and Moore counties; least favorable in Richmond County.
- No significant change has occurred over time when comparing “fair/poor” overall health evaluations.

![Experience “Fair” or “Poor” Overall Health](image)

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 10]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Adults more likely to report experiencing “fair” or “poor” overall health include:

- Those aged 40 and older.
- Residents living at lower incomes.
- Blacks and Hispanics.

### Experience “Fair” or “Poor” Overall Health (Total Area, 2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.0%</td>
<td>20.4%</td>
<td>13.3%</td>
<td>25.2%</td>
<td>23.6%</td>
<td>33.3%</td>
<td>11.2%</td>
<td>18.3%</td>
<td>28.2%</td>
<td>22.2%</td>
<td>7.7%</td>
<td></td>
<td>20.3%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 10]

Notes: 
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Activity Limitations

An individual can get a disabling impairment or chronic condition at any point in life. Compared with people without disabilities, people with disabilities are more likely to:

- Experience difficulties or delays in getting the healthcare they need.
- Not have had an annual dental visit.
- Not have had a mammogram in past 2 years.
- Not have had a Pap test within the past 3 years.
- Not engage in fitness activities.
- Use tobacco.
- Be overweight or obese.
- Have high blood pressure.
- Experience symptoms of psychological distress.
- Receive less social-emotional support.
- Have lower employment rates.

There are many social and physical factors that influence the health of people with disabilities. The following three areas for public health action have been identified, using the International Classification of Functioning, Disability, and Health (ICF) and the three World Health Organization (WHO) principles of action for addressing health determinants.

- **Improve the conditions of daily life** by: encouraging communities to be accessible so all can live in, move through, and interact with their environment; encouraging community living; and removing barriers in the environment using both physical universal design concepts and operational policy shifts.

- **Address the inequitable distribution of resources among people with disabilities and those without disabilities** by increasing: appropriate healthcare for people with disabilities; education and work opportunities; social participation; and access to needed technologies and assistive supports.

- **Expand the knowledge base and raise awareness about determinants of health for people with disabilities** by increasing: the inclusion of people with disabilities in public health data collection efforts across the lifespan; the inclusion of people with disabilities in health promotion activities; and the expansion of disability and health training opportunities for public health and healthcare professionals.

– Healthy People 2020 (www.healthypeople.gov)

**A total of 21.0% of Total Area adults are limited in some way in some activities due to a physical, mental or emotional problem.**

- Nearly identical to the prevalence statewide.
- Higher than the national prevalence.
- Statistically similar by county.
- Statistically unchanged over time.
Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem

In looking at responses by key demographic characteristics, note the following:

- Adults age 40 and older are much more often limited in activities.
- Lower-income residents are much more likely to suffer some type of activity limitation when compared with higher-income residents.
- Non-Hispanics are more likely than Hispanics to report activity limitations.

Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem (Total Area, 2011)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 122]

Notes: ● Asked of all respondents.
   ● Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
   ● Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level, “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Among persons reporting activity limitations, these are most often attributed to musculoskeletal issues, such as back/neck problems, difficulty walking, fractures or bone/joint injuries, or arthritis/rheumatism.

Type of Problem That Limits Activities
(Among Those Reporting Activity Limitations; Total Area, 2011)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back/Neck Problem</td>
<td>18.3%</td>
</tr>
<tr>
<td>Walking Problem</td>
<td>12.2%</td>
</tr>
<tr>
<td>Fracture/Bone/Joint Injury</td>
<td>11.8%</td>
</tr>
<tr>
<td>Arthritis/Rheumatism</td>
<td>10.8%</td>
</tr>
<tr>
<td>Depression/Anxiety/Mental</td>
<td>6.6%</td>
</tr>
<tr>
<td>Heart Problem</td>
<td>5.3%</td>
</tr>
<tr>
<td>Lung/Breathing Problem</td>
<td>4.1%</td>
</tr>
<tr>
<td>Various Other (&lt;3% Each)</td>
<td>30.9%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 123]
Notes: Asked of those respondents reporting activity limitations.
Mental Health & Mental Disorders

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to community or society. Mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental disorders contribute to a host of problems that may include disability, pain, or death. Mental illness is the term that refers collectively to all diagnosable mental disorders.

Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases. According to the national Institute of Mental Health (NIMH), in any given year, an estimated 13 million American adults (approximately 1 in 17) have a seriously debilitating mental illness. Mental health disorders are the leading cause of disability in the United States and Canada, accounting for 25% of all years of life lost to disability and premature mortality. Moreover, suicide is the 11th leading cause of death in the United States, accounting for the deaths of approximately 30,000 Americans each year.

Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

The existing model for understanding mental health and mental disorders emphasizes the interaction of social, environmental, and genetic factors throughout the lifespan. In behavioral health, researchers identify: risk factors, which predispose individuals to mental illness; and protective factors, which protect them from developing mental disorders. Researchers now know that the prevention of mental, emotional, and behavioral (MEB) disorders is inherently interdisciplinary and draws on a variety of different strategies. Over the past 20 years, research on the prevention of mental disorders has progressed. The understanding of how the brain functions under normal conditions and in response to stressors, combined with knowledge of how the brain develops over time, has been essential to that progress. The major areas of progress include evidence that:

- MEB disorders are common and begin early in life.
- The greatest opportunity for prevention is among young people.
- There are multiyear effects of multiple preventive interventions on reducing substance abuse, conduct disorder, antisocial behavior, aggression, and child maltreatment.
- The incidence of depression among pregnant women and adolescents can be reduced.
- School-based violence prevention can reduce the base rate of aggressive problems in an average school by 25 to 33%.
- There are potential indicated preventive interventions for schizophrenia.
- Improving family functioning and positive parenting can have positive outcomes on mental health and can reduce poverty-related risk.
- School-based preventive interventions aimed at improving social and emotional outcomes can also improve academic outcomes.
- Interventions targeting families dealing with adversities, such as parental depression or divorce, can be effective in reducing risk for depression among children and increasing effective parenting.
- Some preventive interventions have benefits that exceed costs, with the available evidence strongest for early childhood interventions.
- Implementation is complex, and it is important that interventions be relevant to the target audiences.

In addition to advancements in the prevention of mental disorders, there continues to be steady progress in treating mental disorders as new drugs and stronger evidence-based outcomes become available.

– Healthy People 2020 (www.healthypeople.gov)
Mental Health Status

Days of Poor Mental Health

A total of 18.8% of Total Area adults report having three or more days of poor mental health in the past month.

- No significant difference by county.
- Denotes a significant improvement (decrease) since the baseline measure in 2003 (similar to 2007 results).

Women, adults under age 65, lower-income residents, and Blacks are more likely to report experiencing 3+ days of poor mental health per month.

**Experienced 3+ Days of Poor Mental Health in the Past Month**

<table>
<thead>
<tr>
<th>County</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>22.0%</td>
<td>18.7%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>16.4%</td>
<td>20.3%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Moore County</td>
<td>20.3%</td>
<td>23.3%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>18.8%</td>
<td>20.3%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>22.0%</td>
<td>18.7%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 116)

Notes:
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

**Experienced 3+ Days of Poor Mental Health in the Past Month (Total Area, 2011)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.4%</td>
<td>22.0%</td>
<td>19.5%</td>
<td>21.8%</td>
<td>10.6%</td>
<td>27.7%</td>
<td>14.0%</td>
<td>17.2%</td>
<td>24.5%</td>
<td>13.0%</td>
<td>20.3%</td>
<td>18.8%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 116)

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Chronic Depression

A total of 27.1% of Total Area adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

- Comparable to national findings.
- Highest in Montgomery County; lowest in Moore County.
- Statistically unchanged over time.

Have Experienced Symptoms of Chronic Depression

Note that the prevalence of chronic depression is notably higher among:

- Adults age 40 to 64.
- Adults with lower incomes.
- Blacks and Hispanics.

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 117]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Stress

A total of 41.5% of Total Area adults report having three or more days of feeling worried, tense or anxious during the past month.

- Unfavorably high in Richmond County.
- Statistically similar to prior survey findings.

Felt Worried, Tense or Anxious for 3+ Days in the Past Month

Note that the prevalence is higher among women, adults under the age of 65, and residents in the lower income segment.

Felt Worried, Tense or Anxious for 3+ Days in the Past Month
(Total Area, 2011)

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 118)
Notes: Asked of all respondents.
Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Mental Health Treatment

A total of 21.2% of Total Area adults report that they have sought professional help for a mental or emotional problem at some point in their lives.

- Similar to the US prevalence.
- Highest in Hoke County, statistically lowest in Moore County.
- Denotes a statistically significant increase over time.

**Have Sought Professional Help for a Mental or Emotional Problem**

![Chart showing the percentage of people who sought professional help for a mental or emotional problem in different counties and years.]

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 119]

Notes: ● Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

- These segments are less likely to have sought help: men; adults age 65 and older; adults with higher incomes; Blacks and Hispanics.

**Have Sought Professional Help for a Mental or Emotional Problem**

(Total Area, 2011)

![Chart showing the percentage of people who sought professional help for a mental or emotional problem in different categories such as gender, age, income, and race/ethnicity.]

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 119]

Notes: ● Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

Among adults reporting symptoms of chronic depression, 47.0% acknowledge that they have sought professional help for a mental or emotional problem.

- Comparable to national findings.
Most favorable in Hoke County.

Marks a steady and significant increase since 1999.

### Have Sought Professional Help for a Mental or Emotional Problem (Among Those With Chronic Depression)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>30.1%</td>
<td>38.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>38.8%</td>
<td>46.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>45.2%</td>
<td>47.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>52.5%</td>
<td>52.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 119]
• 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: ● Asked of those respondents with symptoms of chronic depression.
• Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

### Availability of Mental Health Treatment

A total of 3.0% of survey respondents report that they or a member of their household needed mental health services in the past year but were unable to obtain them.

Most favorable (lowest) in Moore County.

Among adults with symptoms of chronic depression, the prevalence is 8.0%.

### Member of Household Needed Mental Health Services in the Past Year but Was Unable to Receive Them

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>4.1%</td>
<td>3.8%</td>
<td>1.2%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>3.8%</td>
<td>4.6%</td>
<td>3.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Moore County</td>
<td>1.2%</td>
<td>1.2%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>4.6%</td>
<td>4.6%</td>
<td>4.6%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Total Area</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 120]
Notes: ● Asked of all respondents.
• Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Among those reporting difficulty, most described problems related to **cost** or lack of **insurance** coverage.
DEATH, DISEASE & CHRONIC CONDITIONS
Cardiovascular Risk Factors

Heart disease is the leading cause of death in the United States, with stroke following as the third leading cause. Together, heart disease and stroke are among the most widespread and costly health problems facing the nation today, accounting for more than $500 billion in healthcare expenditures and related expenses in 2010 alone. Fortunately, they are also among the most preventable.

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity

The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made across the US population in diet and physical activity, control of high blood pressure and cholesterol, smoking cessation, and appropriate aspirin use.

The burden of cardiovascular disease is disproportionately distributed across the population. There are significant disparities in the following based on gender, age, race/ethnicity, geographic area, and socioeconomic status:

- Prevalence of risk factors
- Access to treatment
- Appropriate and timely treatment
- Treatment outcomes
- Mortality

Disease does not occur in isolation, and cardiovascular disease is no exception. Cardiovascular health is significantly influenced by the physical, social, and political environment, including: maternal and child health; access to educational opportunities; availability of healthy foods, physical education, and extracurricular activities in schools; opportunities for physical activity, including access to safe and walkable communities; access to healthy foods; quality of working conditions and worksite health; availability of community support and resources; and access to affordable, quality healthcare.

– Healthy People 2020 (www.healthypeople.gov)

Hypertension (High Blood Pressure)

Controlling risk factors for heart disease and stroke remains a challenge. High blood pressure and cholesterol are still major contributors to the national epidemic of cardiovascular disease. High blood pressure affects approximately 1 in 3 adults in the United States, and more than half of Americans with high blood pressure do not have it under control. High sodium intake is a known risk factor for high blood pressure and heart disease, yet about 90% of American adults exceed their recommendation for sodium intake.

– Healthy People 2020 (www.healthypeople.gov)
High Blood Pressure Testing

A total of 95.3% of Total Area adults have had their blood pressure tested within the past two years.

- Similar to national findings.
- Similar to the Healthy People 2020 target (94.9% or higher).
- Highest in Hoke County.
- Nearly identical to 2003 survey findings.

Have Had Blood Pressure Checked in the Past Two Years

Prevalence of Hypertension

A total of 39.9% of adults have been told at some point that their blood pressure was high.

- Less favorable than the North Carolina prevalence.
- Less favorable than the national prevalence.
- Fails to satisfy the Healthy People 2020 target (26.9% or lower).
- Highest in Richmond County.
- Marks a statistically significant increase over time.
Hypertension diagnoses are higher among:

- Adults age 40 and older (note the positive correlation with age).
- Lower-income residents.
- Blacks.

### Prevalence of High Blood Pressure (Total Area, 2011)

- **Healthy People 2020 Target = 26.9% or Lower**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>37.6%</td>
<td>42.2%</td>
<td>18.2%</td>
<td>47.1%</td>
<td>64.9%</td>
<td>49.7%</td>
<td>33.1%</td>
<td>34.0%</td>
<td>38.1%</td>
<td>36.8%</td>
<td>39.9%</td>
<td>32.9%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 155]

**Notes:**
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level. "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
Among respondents who have been told that their blood pressure was high, 92.3% report that they are currently taking actions to control their condition.

- Similar to national findings.
- No difference by county.
- Denotes a significant improvement over time.

These individuals were further asked to indicate the measures they are taking to control their hypertension; note the distribution of response in the following chart. In all, 85.0% of these individuals report using medication (alone, or in combination with changes in diet and/or exercise), 47.7% report using diet to control their condition (alone or in combination), and 46.3% report using exercise (alone or in combination).
High Blood Cholesterol

Blood Cholesterol Testing

A total of 91.2% of Total Area adults have had their blood cholesterol checked within the past five years.

- More favorable than North Carolina findings.
- Similar to the national findings.
- Satisfies the Healthy People 2020 target (82.1% or higher).
- No difference by county.
- Denotes a statistically significant increase since 2003.

Have Had Blood Cholesterol Levels Checked in the Past Five Years

Healthy People 2020 Target = 82.1% or Higher

The following demographic segments report lower screening levels:

- Men.
- Adults under age 40.
Have Had Blood Cholesterol Levels Checked in the Past Five Years
(Total Area, 2011)
Healthy People 2020 Target = 82.1% or Higher

Sources:
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 55]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

Self-Reported High Blood Cholesterol

A total of 36.6% of adults have been told by a health professional that their cholesterol level was high.

- More favorable than the North Carolina findings.
- Less favorable than the national prevalence.
- Far from satisfying the Healthy People 2020 target (13.5% or lower).
- Similar by county.
- Marks a statistically significant increase over time.

Prevalence of High Blood Cholesterol

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 156]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- The North Carolina data reflects those adults who have been tested for high cholesterol and who have been diagnosed with it.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Note that 13.3% of Total Area adults report not having high blood cholesterol, but: 1) have never had their blood cholesterol levels tested; 2) have not been screened in the past 5 years; or 3) do not recall when their last screening was. For these individuals, current prevalence is unknown.
Adults 40 and older are much more likely to report high blood cholesterol when compared to younger adults.

Note the higher prevalence among lower-income adults.

The prevalence ranges from 27.5% among Hispanics to 38.9% among Blacks.

Keep in mind that "unknowns" are relatively high in men, young adults, lower-income residents, Blacks and Hispanics.

Prevalence of High Blood Cholesterol
(Total Area, 2011)

Note the higher prevalence among lower-income adults.

The prevalence ranges from 27.5% among Hispanics to 38.9% among Blacks.

Keep in mind that "unknowns" are relatively high in men, young adults, lower-income residents, Blacks and Hispanics.

High Cholesterol Management

Among adults who have been told that their blood cholesterol was high, 85.6% report that they are currently taking actions to control their cholesterol levels.

- Similar to that found nationwide.
- Unfavorably low Richmond County.
- Marks a statistically significant increase since 1999.
These individuals were further asked to indicate the measures they are taking to control their cholesterol levels; note the distribution of response in the following chart. In all, 72.4% of these individuals report using medication (alone, or in combination with changes in diet and/or exercise), 55.7% report using diet to control their condition (alone or in combination), and 44.0% report using exercise (alone or in combination).

**Measures Taken to Control High Blood Cholesterol**
(Total Area Adults w/High Blood Cholesterol, 2011)

- Meds Only 32.5%
- Meds/Diet/Exercise 22.6%
- Diet Only 12.1%
- Meds/Diet 10.6%
- Diet/Exercise 10.4%
- Meds/Exercise 6.7%
- Exercise Only 4.3%
- Other 0.7%

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 54]
Notes: ● Asked of all respondents who have been diagnosed with high blood cholesterol
Total Cardiovascular Risk

Individual level risk factors which put people at increased risk for cardiovascular diseases include:

- High Blood Pressure
- High Blood Cholesterol
- Tobacco Use
- Physical Inactivity
- Poor Nutrition
- Overweight/Obesity
- Diabetes

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

Three health-related behaviors contribute markedly to cardiovascular disease:

**Poor nutrition.** People who are overweight have a higher risk for cardiovascular disease. Almost 60% of adults are overweight or obese. To maintain a proper body weight, experts recommend a well-balanced diet which is low in fat and high in fiber, accompanied by regular exercise.

**Lack of physical activity.** People who are not physically active have twice the risk for heart disease of those who are active. More than half of adults do not achieve recommended levels of physical activity.

**Tobacco use.** Smokers have twice the risk for heart attack of nonsmokers. Nearly one-fifth of all deaths from cardiovascular disease, or about 190,000 deaths a year nationally, are smoking-related. Every day, more than 3,000 young people become daily smokers in the US

Modifying these behaviors is critical both for preventing and for controlling cardiovascular disease. Other steps that adults who have cardiovascular disease should take to reduce their risk of death and disability include adhering to treatment for high blood pressure and cholesterol, using aspirin as appropriate, and learning the symptoms of heart attack and stroke.

- National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

**Nearly 9 in 10 Total Area adults (88.8%)** report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

- Comparable to national findings.
- Highest in Richmond County; lowest in Moore County.
- Statistically similar to previous findings.
Present One or More Cardiovascular Risks or Behaviors

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 157]  
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: ● Asked of all respondents.  
● Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.  
● Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Adults more likely to exhibit cardiovascular risk factors include:

-Men.
-Adults age 40 and older.
-Lower-income residents.
-Blacks and “Other” race backgrounds (non-White, non-Hispanic).

Present One or More Cardiovascular Risks or Behaviors  
(Total Area, 2011)

Source: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 157]

Notes:  
● Asked of all respondents.  
● Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.  
● Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).  
● Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Cancer Screenings

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in five years. Yet, cancer remains a leading cause of death in the United States, second only to heart disease.

Many cancers are preventable by reducing risk factors such as: use of tobacco products; physical inactivity and poor nutrition; obesity; and ultraviolet light exposure. Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus. In the past decade, overweight and obesity have emerged as new risk factors for developing certain cancers, including colorectal, breast, uterine corpus (endometrial), and kidney cancers. The impact of the current weight trends on cancer incidence will not be fully known for several decades. Continued focus on preventing weight gain will lead to lower rates of cancer and many chronic diseases.

Screening is effective in identifying some types of cancers (see US Preventive Services Task Force [USPSTF] recommendations), including:

- Breast cancer (using mammography)
- Cervical cancer (using Pap tests)
- Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)

  Healthy People 2020 (www.healthypeople.gov)

Cancer Risk

Reducing the nation’s cancer burden requires reducing the prevalence of behavioral and environmental factors that increase cancer risk.

- All cancers caused by cigarette smoking could be prevented. At least one-third of cancer deaths that occur in the United States are due to cigarette smoking.
- According to the American Cancer Society, about one-third of cancer deaths that occur in the United States each year are due to nutrition and physical activity factors, including obesity.

  National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention

The American Cancer Society recommends that both men and women get a cancer-related checkup during a regular doctor’s checkup. It should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.

Screening levels in the community were measured in the PRC Community Health Survey relative to four cancer sites: prostate cancer (prostate-specific antigen testing and digital rectal examination); female breast cancer (mammography); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).
Prostate Cancer Screenings

The US Preventive Services Task Force (USPSTF) concludes that the current evidence is insufficient to assess the balance of benefits and harms of prostate cancer screening in men younger than age 75 years.

Rationale: Prostate cancer is the most common nonskin cancer and the second-leading cause of cancer death in men in the United States. The USPSTF found convincing evidence that prostate-specific antigen (PSA) screening can detect some cases of prostate cancer.

In men younger than age 75 years, the USPSTF found inadequate evidence to determine whether treatment for prostate cancer detected by screening improves health outcomes compared with treatment after clinical detection.

The USPSTF found convincing evidence that treatment for prostate cancer detected by screening causes moderate-to-substantial harms, such as erectile dysfunction, urinary incontinence, bowel dysfunction, and death. These harms are especially important because some men with prostate cancer who are treated would never have developed symptoms related to cancer during their lifetime.

There is also adequate evidence that the screening process produces at least small harms, including pain and discomfort associated with prostate biopsy and psychological effects of false-positive test results.

The USPSTF recommends against screening for prostate cancer in men age 75 years or older.

Rationale: In men age 75 years or older, the USPSTF found adequate evidence that the incremental benefits of treatment for prostate cancer detected by screening are small to none.

Given the uncertainties and controversy surrounding prostate cancer screening in men younger than age 75 years, a clinician should not order the PSA test without first discussing with the patient the potential but uncertain benefits and the known harms of prostate cancer screening and treatment. Men should be informed of the gaps in the evidence and should be assisted in considering their personal preferences before deciding whether to be tested.


Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

PSA Testing and/or Digital Rectal Examination

Among Total Area men age 18 and older, 44.3% had a PSA (prostate-specific antigen) test in the past year.

- Another 8.4% had a PSA text between one and two years ago, and 3.1% were texted between two and three years ago.
- In contrast, 36.8% of Total Area men (18+) have never been tested (reasons include: “don’t feel I need one,” “doctor has not recommended,” and “too young,” to name a few).
Among Total Area men age 40 and older, 52.9% had a digital rectal examination for prostate problems within the past year.

- Another 15.1% had a digital rectal exam between one and two years ago.
- On the other hand, 8.4% of men 40+ have not received this screening; the most prevalent reasons were: “doctor has not recommended” and “don’t feel I need one.”
The US Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women age 40 and older.

**Rationale:** The USPSTF found fair evidence that mammography screening every 12-33 months significantly reduces mortality from breast cancer. Evidence is strongest for women age 50-69, the age group generally included in screening trials. For women age 40-49, the evidence that screening mammography reduces mortality from breast cancer is weaker, and the absolute benefit of mammography is smaller, than it is for older women. Most, but not all, studies indicate a mortality benefit for women undergoing mammography at ages 40-49, but the delay in observed benefit in women younger than 50 makes it difficult to determine the incremental benefit of beginning screening at age 40 rather than at age 50.

The absolute benefit is smaller because the incidence of breast cancer is lower among women in their 40s than it is among older women. The USPSTF concluded that the evidence is also generalizable to women age 70 and older (who face a higher absolute risk for breast cancer) if their life expectancy is not compromised by comorbid disease. The absolute probability of benefits of regular mammography increase along a continuum with age, whereas the likelihood of harms from screening (false-positive results and unnecessary anxiety, biopsies, and cost) diminish from ages 40-70. The balance of benefits and potential harms, therefore, grows more favorable as women age. The precise age at which the potential benefits of mammography justify the possible harms is a subjective choice. The USPSTF did not find sufficient evidence to specify the optimal screening interval for women age 40-49.


Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

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**Among men age 50 and older, 83.3% have had a PSA (prostate-specific antigen) test and/or a digital rectal examination for prostate problems within the past two years.**

- Higher than national findings.
- No difference by county.
- Overall, denotes a significant increase from measures in 1999 and 2003.

**Have Had a Prostate Screening in the Past Two Years**

(Among Men 50+)

<table>
<thead>
<tr>
<th>County</th>
<th>1999</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>85.8%</td>
<td>83.2%</td>
<td>77.1%</td>
<td>83.3%</td>
</tr>
<tr>
<td>Moore County</td>
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<tr>
<td>Richmond County</td>
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<td></td>
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<tr>
<td>Total Area</td>
<td>75.1%</td>
<td>81.7%</td>
<td>84.9%</td>
<td>83.3%</td>
</tr>
<tr>
<td>US</td>
<td></td>
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</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 163)
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all male respondents 50 and older.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
- The Montgomery County sample was too small to be reliable.

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Note: Due to recent (2008) changes in clinical recommendations against routine PSA testing, it is anticipated that testing levels will begin to decline.
Female Breast Cancer Screening

Mammography

Among Total Area women age 18 and older, 44.8% had a mammogram within the past year.

- Another 13.3% of Total Area women had a mammogram between one and two years ago.
- On the other hand, 26.3% of area women have not had a mammogram (reasons given were: “doctor has not recommended,” “don't feel I need one” and “age,” to name a few).

Most Recent Mammogram
(Total Area Females 18+, 2011)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Year</td>
<td>44.8%</td>
</tr>
<tr>
<td>Past 2 Years</td>
<td>13.3%</td>
</tr>
<tr>
<td>Past 3 Years</td>
<td>5.4%</td>
</tr>
<tr>
<td>Past 5 Years</td>
<td>4.3%</td>
</tr>
<tr>
<td>&gt;5 Years</td>
<td>5.9%</td>
</tr>
<tr>
<td>Never</td>
<td>26.3%</td>
</tr>
</tbody>
</table>

Sources: Professional Research Consultants, Inc. PRC Community Health Survey. [Item 78]
Notes: Asked of all female respondents.

Among women age 50-74, 82.5% have had a mammogram within the past two years.

- Similar to statewide findings (which represent women 50+).
- Similar to national findings.
- Similar to the Healthy People 2020 target (81.1% or higher).
- Highest in Moore County.
- Statistically unchanged since 1999.
- Among women 40+, 81.2% had a mammogram in the past two years.
Have Had a Mammogram in the Past Two Years
(Among Women 50-74)

Healthy People 2020 Target = 81.1% or Higher

<table>
<thead>
<tr>
<th></th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC*</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Had Mammogram in Past Two Years</td>
<td>83.3%</td>
<td>86.7%</td>
<td>76.8%</td>
<td>82.5%</td>
<td>81.2%</td>
<td>79.9%</td>
</tr>
</tbody>
</table>

Notes:
- Reflects female respondents 50-74.
- *Note that state data reflects all women 50 and older (vs. women 50-74 in local, US and Healthy People data).
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
- The Hoke County sample was too small to be reliable.

Among Total Area women age 18 and older, 68.1% had a clinical breast exam (wherein a doctor, nurse or other health professional feels the breast for lumps) within the past year.

- Another 15.8% of Total Area women had a clinical breast exam in the past two years.
- A total of 3.3% have not had this type of screening.

Most Recent Clinical Breast Exam
(Total Area Females 18+, 2011)

- Past Year 68.1%
- Past 2 Years 15.8%
- Past 3 Years 5.5%
- Past 5 Years 2.8%
- Never 3.3%
- 5+ Years 4.4%

Sources:
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 80]

Notes:
- Asked of all female respondents.
Cervical Cancer Screenings

The US Preventive Services Task Force (USPSTF) strongly recommends screening for cervical cancer in women who have been sexually active and have a cervix.

Rationale: The USPSTF found good evidence from multiple observational studies that screening with cervical cytology (Pap smears) reduces incidence of and mortality from cervical cancer. Direct evidence to determine the optimal starting and stopping age and interval for screening is limited. Indirect evidence suggests most of the benefit can be obtained by beginning screening within 3 years of onset of sexual activity or age 21 (whichever comes first) and screening at least every 3 years. The USPSTF concludes that the benefits of screening substantially outweigh potential harms.

The USPSTF recommends against routinely screening women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer.

Rationale: The USPSTF found limited evidence to determine the benefits of continued screening in women older than 65. The yield of screening is low in previously screened women older than 65 due to the declining incidence of high-grade cervical lesions after middle age. There is fair evidence that screening women older than 65 is associated with an increased risk for potential harms, including false-positive results and invasive procedures. The USPSTF concludes that the potential harms of screening are likely to exceed benefits among older women who have had normal results previously and who are not otherwise at high risk for cervical cancer.

The USPSTF recommends against routine Pap smear screening in women who have had a total hysterectomy for benign disease.

Rationale: The USPSTF found fair evidence that the yield of cytologic screening is very low in women after hysterectomy and poor evidence that screening to detect vaginal cancer improves health outcomes. The USPSTF concludes that potential harms of continued screening after hysterectomy are likely to exceed benefits.


Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Pap Smear Testing

Among women age 21 to 65, 87.3% have had a Pap smear within the past three years.

- Higher than the North Carolina figure (which represents all women 18+).
- Comparable to national findings.
- Fails to satisfy the Healthy People 2020 target (93% or higher).
- Similar by county.
  - Statistically unchanged since 1999.
Have Had a Pap Smear in the Past Three Years  
(Among Women 21-65)

Healthy People 2020 Target = 93.0% or Higher

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 161]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects female respondents age 21 to 65.
- *Note that the North Carolina percentage represents all women age 18 and older.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Colorectal Cancer Screenings

The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years.

The evidence is convincing that screening for colorectal cancer with fecal occult blood testing, sigmoidoscopy, or colonoscopy detects early-stage cancer and adenomatous polyps. There is convincing evidence that screening with any of the three recommended tests (FOBT, sigmoidoscopy, colonoscopy) reduces colorectal cancer mortality in adults age 50 to 75 years. Follow-up of positive screening test results requires colonoscopy regardless of the screening test used.


Note that other organizations (e.g., American Cancer Society, American Academy of Family Physicians, American College of Physicians, National Cancer Institute) may have slightly different screening guidelines.

Colorectal Cancer Screening

Among adults age 50-75, 81.6% have had an appropriate colorectal cancer screening (fecal occult blood testing within the past year and/or sigmoidoscopy/colonoscopy [lower endoscopy] within the past 10 years).

- Satisfies the Healthy People 2020 target (70.5% or higher).
- Highest in Moore County, lowest in Richmond County (not shown).

![Pie chart showing 81.6% have had a colorectal cancer screening](chart.png)

**Have Had a Colorectal Cancer Screening**

(Among Total Area Adults 50-75, 2011)

Healthy People 2020 Target =

70.5% or Higher

Yes 81.6%

No 18.4%

Sources: 
- Professional Research Consultants, Inc. PRC Community Health Survey. [Item 166]

Notes: 
- Asked of all respondents age 50 through 75.
- In this case, the term “colorectal screening” refers to adults age 50-75 receiving a FOBT (fecal occult blood test) in the past year and/or a lower endoscopy (sigmoidoscopy/colonoscopy) in the past 10 years.

Sigmoidoscopy/Colonoscopy

Among adults age 50 and older, 80.4% have had a lower endoscopy (sigmoidoscopy or colonoscopy) at some point in their lives.

- More favorable than North Carolina findings.
- More favorable than national findings.
- Highest in Moore County; lower in Montgomery and Richmond counties.

陌生人 Trending upward significantly.
Have Ever Had a Lower Endoscopy Exam
(Among Adults 50+)

Sources:
● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 164]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
● Asked of all respondents 50+.
● Lower endoscopy includes either sigmoidoscopy or colonoscopy.
● Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Adults age 50+ who have never had a sigmoidoscopy/colonoscopy mainly cited “haven’t needed one” and “doctor hasn’t recommended” as their reasoning.

Blood Stool Testing

Among adults age 50 and older, 42.0% have had a blood stool test (aka “fecal occult blood test”) within the past two years.

- More favorable than North Carolina findings.
- More favorable than national findings.
- Similar by county.
- Statistically similar to baseline 1999 findings.

Have Had a Blood Stool Test in the Past Two Years
(Among Adults 50+)

Sources:
● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 165]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
● Asked of all respondents 50+.
● Lower endoscopy includes either sigmoidoscopy or colonoscopy.
● Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Adults age 50+ who have not had a blood stool exam in the past two years largely gave these reasons: “doctor hasn’t recommended” and “haven’t need one.”
Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives.

Asthma. The prevalence of asthma has increased since 1980. However, deaths from asthma have decreased since the mid-1990s. The causes of asthma are an active area of research and involve both genetic and environmental factors. Risk factors for asthma currently being investigated include:

- Having a parent with asthma
- Sensitization to irritants and allergens
- Respiratory infections in childhood
- Overweight

Asthma affects people of every race, sex, and age. However, significant disparities in asthma morbidity and mortality exist, in particular for low-income and minority populations. Populations with higher rates of asthma include: children; women (among adults) and boys (among children); African Americans; Puerto Ricans; people living in the Northeast United States; people living below the Federal poverty level; and employees with certain exposures in the workplace.

While there is not a cure for asthma yet, there are diagnoses and treatment guidelines that are aimed at ensuring that all people with asthma live full and active lives.

- Healthy People 2020 (www.healthypeople.gov)

A total of 12.3% of Total Area adults have been diagnosed with asthma.

- Similar to the statewide prevalence.
- Similar to the national prevalence.
- Higher in Hoke County.

The prevalence of adults who have ever been diagnosed with asthma has not changed significantly since 2003.

Ever Diagnosed With Asthma

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 47)
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
The following adults are more likely to suffer from asthma:

- Low-income residents.
- Blacks and residents of “Other” races.

### Ever Diagnosed With Asthma

(Total Area, 2011)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
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</tr>
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<tbody>
<tr>
<td>Low Income</td>
<td>10.6%</td>
<td>14.0%</td>
<td>11.2%</td>
<td>13.9%</td>
<td>11.2%</td>
<td>19.4%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 47]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Diabetes

Diabetes mellitus occurs when the body cannot produce or respond appropriately to insulin. Insulin is a hormone that the body needs to absorb and use glucose (sugar) as fuel for the body’s cells. Without a properly functioning insulin signaling system, blood glucose levels become elevated and other metabolic abnormalities occur, leading to the development of serious, disabling complications. Many forms of diabetes exist; the three common types are Type 1, Type 2, and gestational diabetes.

Effective therapy can prevent or delay diabetic complications. However, almost 25% of Americans with diabetes mellitus are undiagnosed, and another 57 million Americans have blood glucose levels that greatly increase their risk of developing diabetes mellitus in the next several years. Few people receive effective preventative care, which makes diabetes mellitus an immense and complex public health challenge.

Diabetes mellitus affects an estimated 23.6 million people in the United States and is the 7th leading cause of death. Diabetes mellitus:

- Lowers life expectancy by up to 15 years.
- Increases the risk of heart disease by 2 to 4 times.
- Is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness.

In addition to these human costs, the estimated total financial cost of diabetes mellitus in the US in 2007 was $174 billion, which includes the costs of medical care, disability, and premature death.

The rate of diabetes mellitus continues to increase both in the United States and throughout the world. Due to the steady rise in the number of persons with diabetes mellitus, and possibly earlier onset of type 2 diabetes mellitus, there is growing concern about the possibility that the increase in the number of persons with diabetes mellitus and the complexity of their care might overwhelm existing healthcare systems.

People from minority populations are more frequently affected by type 2 diabetes. Minority groups constitute 25% of all adult patients with diabetes in the US and represent the majority of children and adolescents with type 2 diabetes.

Lifestyle change has been proven effective in preventing or delaying the onset of type 2 diabetes in high-risk individuals.

Healthy People 2020 (www.healthypeople.gov)

Prevalence of Diabetes

A total of 17.2% of Total Area adults report having been diagnosed with diabetes.

- Higher than the proportion statewide.
- Higher than the national proportion.
- Statistically similar by county.

嗪 Denotes a statistically significant increase since 1999.
Prevalence of Diabetes

Note the positive correlation between diabetes and age (with 32.0% of seniors with diabetes).

Also, lower-income respondents are more likely to be diabetic when compared with those in the higher income segment.

The prevalence of diabetes is higher among Blacks when compared with other race/ethnic breakouts in the Total Area.

Prevalence of Diabetes
(Total Area, 2011)
Diabetes Treatment & Education

Medication/Insulin

Among adults with diabetes, most (71.8%) are currently taking insulin or some type of medication to manage their condition.

Taking Insulin or Other Medication for Diabetes
(Among Total Area Diabetics)

Yes 71.8%
No 28.2%

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 42]
Notes: Asked of all diabetic respondents.

Diabetes-Related Hospitalizations

Most diabetic respondents (93.8%) had no diabetes-related hospitalizations in the past year.

- However, 6.2% of Total Area diabetics had at least one diabetes-related hospitalization in the past year (including 4.6% with two or more).

Number of Diabetes-Related Hospitalizations or ER Visits in the Past Year
(Among Total Area Diabetics)

None 93.8%
One 1.6%
Two 3.5%
Three/More 1.1%

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 43]
Notes: Asked of all diabetic respondents.
Diabetes Education

Just over one-half (51.9%) of respondents with diabetes have taken a course on diabetes management.

Have Taken a Course or Class on Diabetes Management
(Among Total Area Diabetics)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 44]
Notes: ● Asked of all diabetic respondents.

Blood Sugar Testing

Three-fourths (75.3%) of Total Area adults report having their blood sugar tested in the past year.

Most Recent Blood Sugar Check by Healthcare Professional
(Among Total Area Adults 18+, 2011)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]
Notes: ● Asked of all respondents.
The prevalence of recent blood sugar tests is highest among Moore County residents.

### Had a Blood Sugar Check Within the Past Year
(Total Area Respondents, 2011)

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>72.8%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>71.8%</td>
</tr>
<tr>
<td>Moore County</td>
<td>78.9%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>72.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>75.3%</td>
</tr>
</tbody>
</table>

**Sources:**
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 46]

**Notes:**
- Asked of all respondents.

### Borderline/Pre-Diabetes

A total of 6.0% of Total Area adults report having been diagnosed as “borderline” or pre-diabetic.

- Favorably low in Hoke County.

### Have Been Diagnosed as Borderline or Pre-Diabetic
(Among Non-Diabetic Respondents)

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>3.7%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>9.7%</td>
</tr>
<tr>
<td>Moore County</td>
<td>6.3%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>5.4%</td>
</tr>
<tr>
<td>Total Area</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

**Sources:**
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 45]

**Notes:**
- Asked of all non-diabetic respondents.
These population segments are more likely to have been diagnosed as borderline or pre-diabetic:

- Women.
- Seniors.
- Lower-income residents.
- Hispanics.
- Obese individuals.

### Have Been Diagnosed as Borderline or Pre-Diabetic

(Total Area Non-Diabetics, 2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Overweight</th>
<th>Obese</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.9%</td>
<td>8.9%</td>
<td>4.2%</td>
<td>6.4%</td>
<td>8.8%</td>
<td>8.0%</td>
<td>4.3%</td>
<td>4.3%</td>
<td>8.3%</td>
<td>15.8%</td>
<td>6.0%</td>
<td>3.1%</td>
<td>12.0%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 45]

Notes:
- Asked of all non-diabetic respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Influenza Vaccination

Acute respiratory infections, including pneumonia and influenza, are the 8th leading cause of death in the nation, accounting for 56,000 deaths annually. On average, influenza leads to more than 200,000 hospitalizations and 36,000 deaths each year. The 2009 H1N1 influenza pandemic caused an estimated 270,000 hospitalizations and 12,270 deaths (1,270 of which were of people younger than age 18) between April 2009 and March 2010.

– Healthy People 2020 (www.healthypeople.gov)

Among Total Area residents age 65 and older, 64.7% report receiving a flu shot (or FluMist® vaccine) within the past year.

- Statistically comparable to the North Carolina finding.
- Comparable to the national finding.
- Fails to satisfy the Healthy People 2020 target (90% or higher).
- Lower than found in 2007, but similar to 2003 findings.

Have Had a Flu Vaccination in the Past Year
(Among Adults 65+)

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 176]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects respondents 65 and older.
- Includes FluMist as a form of vaccination.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
MODIFIABLE HEALTH RISKS
Actual Causes Of Death

A 1999 study (an update to a landmark 1993 study), estimated that as many as 40% of premature deaths in the United States are attributed to behavioral factors. This study found that behavior patterns represent the single-most prominent domain of influence over health prospects in the United States. The daily choices we make with respect to diet, physical activity, and sex; the substance abuse and addictions to which we fall prey; our approach to safety; and our coping strategies in confronting stress are all important determinants of health.

The most prominent contributors to mortality in the United States in 2000 were tobacco (an estimated 435,000 deaths), diet and activity patterns (400,000), alcohol (85,000), microbial agents (75,000), toxic agents (55,000), motor vehicles (43,000), firearms (29,000), sexual behavior (20,000), and illicit use of drugs (17,000). Socioeconomic status and access to medical care are also important contributors, but difficult to quantify independent of the other factors cited. Because the studies reviewed used different approaches to derive estimates, the stated numbers should be viewed as first approximations.

These analyses show that smoking remains the leading cause of mortality. However, poor diet and physical inactivity may soon overtake tobacco as the leading cause of death. These findings, along with escalating healthcare costs and aging population, argue persuasively that the need to establish a more preventive orientation in the US healthcare and public health systems has become more urgent.


<table>
<thead>
<tr>
<th>Leading Causes of Death</th>
<th>Underlying Risk Factors</th>
<th>(Actual Causes of Death)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>Tobacco use</td>
<td>Obesity</td>
</tr>
<tr>
<td></td>
<td>Elevated serum cholesterol</td>
<td>Diabetes</td>
</tr>
<tr>
<td></td>
<td>High blood pressure</td>
<td>Sedentary lifestyle</td>
</tr>
<tr>
<td>Cancer</td>
<td>Tobacco use</td>
<td>Alcohol</td>
</tr>
<tr>
<td></td>
<td>Improper diet</td>
<td>Occupational/environmental exposures</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>High blood pressure</td>
<td>Elevated serum cholesterol</td>
</tr>
<tr>
<td></td>
<td>Tobacco use</td>
<td></td>
</tr>
<tr>
<td>Accidental injuries</td>
<td>Safety belt noncompliance</td>
<td>Occupational hazards</td>
</tr>
<tr>
<td></td>
<td>Alcohol/substance abuse</td>
<td>Stress/fatigue</td>
</tr>
<tr>
<td>Chronic lung disease</td>
<td>Tobacco use</td>
<td>Occupational/environmental exposures</td>
</tr>
</tbody>
</table>


Factors Contributing to Premature Deaths in the United States

While causes of death are typically described as the diseases or injuries immediately precipitating the end of life, a few important studies have shown that the actual causes of premature death (reflecting underlying risk factors) are often preventable.
Strong science exists supporting the health benefits of eating a healthful diet and maintaining a healthy body weight. Efforts to change diet and weight should address individual behaviors, as well as the policies and environments that support these behaviors in settings such as schools, worksites, healthcare organizations, and communities.

The goal of promoting healthful diets and healthy weight encompasses increasing household food security and eliminating hunger.

Americans with a healthful diet:

- Consume a variety of nutrient-dense foods within and across the food groups, especially whole grains, fruits, vegetables, low-fat or fat-free milk or milk products, and lean meats and other protein sources.
- Limit the intake of saturated and trans fats, cholesterol, added sugars, sodium (salt), and alcohol.
- Limit caloric intake to meet caloric needs.

Diet and body weight are related to health status. Good nutrition is important to the growth and development of children. A healthful diet also helps Americans reduce their risks for many health conditions, including: overweight and obesity; malnutrition; iron-deficiency anemia; heart disease; high blood pressure; dyslipidemia (poor lipid profiles); type 2 diabetes; osteoporosis; oral disease; constipation; diverticular disease; and some cancers.

Diet reflects the variety of foods and beverages consumed over time and in settings such as worksites, schools, restaurants, and the home. Interventions to support a healthier diet can help ensure that:

- Individuals have the knowledge and skills to make healthier choices.
- Healthier options are available and affordable.

Social Determinants of Diet. Demographic characteristics of those with a more healthful diet vary with the nutrient or food studied. However, most Americans need to improve some aspect of their diet.

Social factors thought to influence diet include:

- Knowledge and attitudes
- Skills
- Social support
- Societal and cultural norms
- Food and agricultural policies
- Food assistance programs
- Economic price systems

Physical Determinants of Diet. Access to and availability of healthier foods can help people follow healthful diets. For example, better access to retail venues that sell healthier options may have a positive impact on a person’s diet; these venues may be less available in low-income or rural neighborhoods.

The places where people eat appear to influence their diet. For example, foods eaten away from home often have more calories and are of lower nutritional quality than foods prepared at home.

Marketing also influences people’s—particularly children’s—food choices.

– Healthy People 2020 (www.healthypeople.gov)
Fruits & Vegetables

Fruits

Nearly one-half of Total Area adults report generally eating no fruit (7.3%) or less than one serving (40.8%) of fruit per day.

- Another 26.1% of survey respondents eat on average one daily serving of fresh, frozen or canned fruit.

On the other hand, 26.0% of Total Area adults report eating an average of two or more servings of fruits per day.

- Lowest in Richmond County.

Fruit consumption, by this measure, has decreased significantly since 2007.

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 90)

Notes: Asked of all respondents.
Area men are less likely to eat two or more servings of fresh, frozen or canned fruit on an average day, as are Non-Hispanics.

**Consume 2+ Servings of Fresh, Frozen or Canned Fruit Per Day**  
(Total Area, 2011)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.6%</td>
<td>31.1%</td>
<td>26.1%</td>
<td>24.2%</td>
<td>29.1%</td>
<td>22.9%</td>
<td>27.7%</td>
<td>25.8%</td>
<td>25.3%</td>
<td>33.8%</td>
<td>23.6%</td>
<td>26.0%</td>
</tr>
</tbody>
</table>

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 185]

Notes: ● Asked of all respondents.

Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).

Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

**Vegetables**

More than one in three Total Area adults report generally eating no vegetables (3.0%) or less than one serving (32.2%) of vegetables on an average day.

- Another 34.6% of survey respondents average one daily serving of raw, cooked, canned or frozen vegetables.

**Daily Servings of Raw, Cooked, Canned or Frozen Vegetables**  
(Total Area Adults, 2011)

<table>
<thead>
<tr>
<th></th>
<th>None 3.0%</th>
<th>One 34.6%</th>
<th>Less Than One 32.2%</th>
<th>Two 17.7%</th>
<th>Three/More 12.5%</th>
</tr>
</thead>
</table>

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 91]

Notes: ● Asked of all respondents.
On the other hand, 12.5% of Total Area adults report generally eating three or more servings of vegetables per day.

- Similar by county.
- Consumption, by this measure, has decreased significantly since 2007.

### Consume 3+ Servings of Raw, Fresh, Frozen or Canned Vegetables Per Day

![Graph showing consumption by county and year]

**Sources:** PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 91)

**Notes:**
- Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Residents of “Other” races are less likely to average three or more servings of raw, cooked, canned or frozen vegetables per day.

### Consume 3+ Servings of Raw, Fresh, Frozen or Canned Vegetables Per Day (Total Area, 2011)

![Graph showing consumption by gender and age group]

**Sources:** 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 91)

**Notes:**
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Whole Grains

A total of 13.3% of Total Area adults do not eat any whole grains (including whole wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain and bran breads) and one-third (33.7%) eat less than one serving on an average day.

- Another 30.1% of survey respondents average one daily serving of whole grains.

Daily Servings of Whole Grain Breads
(Total Area Adults, 2011)

<table>
<thead>
<tr>
<th>Servings</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>13.3%</td>
</tr>
<tr>
<td>Less Than One</td>
<td>33.7%</td>
</tr>
<tr>
<td>One</td>
<td>30.1%</td>
</tr>
<tr>
<td>Two</td>
<td>12.2%</td>
</tr>
<tr>
<td>Three/More</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

On the other hand, 22.9% of Total Area adults report generally eating two or more servings of whole grains per day.

- No difference by county.

Whole grain consumption has decreased significantly since 2007.

Consume 2+ Servings of Whole Grain Bread Per Day

<table>
<thead>
<tr>
<th>County</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>20.8%</td>
<td>24.4%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>23.9%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Moore County</td>
<td>21.6%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>35.7%</td>
<td>22.9%</td>
</tr>
</tbody>
</table>

Total Area

Trend:
- Prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 92]

Notes:
- As of all respondents.
- In this case, the term “whole grain breads” includes whole wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain and bran breads.
Adults aged 40 and older and residents of “Other” races are less likely to average two or more servings of daily whole grains.

**Consume 2+ Servings of Whole Grain Bread Per Day**
(Total Area, 2011)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.3%</td>
<td>22.6%</td>
<td>26.8%</td>
<td>20.4%</td>
<td>21.2%</td>
<td>25.0%</td>
<td>20.7%</td>
<td>24.8%</td>
<td>26.3%</td>
<td>27.1%</td>
<td>13.5%</td>
<td>22.9%</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- *2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 92]*
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- In this case, the term “whole grain breads” includes whole wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain, and bran breads.

Sugar-Sweetened Beverages

A total of **42.8%** of Total Area adults did not have any sugar-sweetened beverages to drink on the day preceding the survey (including “regular” non-diet soda, sweet tea, Gatorade, Monster and other “energy” drinks, specialty coffee drinks, etc.).

**Servings of Sugar-Sweetened Beverages Consumed Yesterday**
(Total Area Adults, 2011)

None **42.8%**
One **20.1%**
Two **17.4%**
Three/More **19.7%**

**Notes:**
- *2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 100]*
- Asked of all respondents.
- In this case, a sugar-sweetened beverage includes 12 ounces of regular soda, sweet tea, Gatorade, Monster, and other “energy” drinks, specialty coffee drinks, etc.
On the other hand, 57.2% of Total Area adults had at least one sugar-sweetened beverage to drink on the day before the survey was conducted.

- Highest in Hoke County; lowest in Moore County.

### Consumed at Least One Sugar-Sweetened Beverage Yesterday

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>73.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>56.3%</td>
</tr>
<tr>
<td>Moore County</td>
<td>48.1%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>61.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>57.2%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 100]

Notes:
- Asked of all respondents.
- In this case, a sugar-sweetened beverage includes 12 ounces of regular soda, sweet tea, Gatorade, Monster, and other “energy” drinks, specialty coffee drinks, etc.

Area men are more likely to have had at least one sugar-sweetened beverage on the day preceding the survey, as are young adults, lower-income residents, Hispanics and Non-Whites.

### Consumed at Least One Sugar-Sweetened Beverage Yesterday (Total Area, 2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>62.5%</td>
</tr>
<tr>
<td>Women</td>
<td>51.9%</td>
</tr>
<tr>
<td>18 to 39</td>
<td>67.7%</td>
</tr>
<tr>
<td>40 to 64</td>
<td>53.9%</td>
</tr>
<tr>
<td>65+</td>
<td>45.4%</td>
</tr>
<tr>
<td>Low Income</td>
<td>67.5%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>51.7%</td>
</tr>
<tr>
<td>White</td>
<td>52.9%</td>
</tr>
<tr>
<td>Black</td>
<td>62.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>74.8%</td>
</tr>
<tr>
<td>Other</td>
<td>64.5%</td>
</tr>
<tr>
<td>Total Area</td>
<td>57.2%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 100]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- In this case, a sugar-sweetened beverage includes 12 ounces of regular soda, sweet tea, Gatorade, Monster, and other “energy” drinks, specialty coffee drinks, etc.
Sources for Healthy Foods

Survey respondents were next presented with a series of potential sources for purchasing fresh produce and asked whether they have obtained fresh fruits and vegetables from any in the past year (multiple responses were allowed).

The largest share of responses (95.5%) was for grocery or super-stores such as Walmart, followed by farmer’s markets (mentioned by 54.3%) and permanent farm stands (42.4%).

- Other sources for fresh produce were used less often in the past year: corner/convenience/gas stations (used by 16.2% of respondents for fresh produce), church or community organizations (12.9%) and food banks or food pantries (9.8%).

Sources for Fresh Fruits/Vegetables in the Past Year
(Total Area, 2011)

- Grocery/Superstore (ie Walmart) - 95.5%
- Farmer’s Market - 54.3%
- Permanent Farm Stand - 42.4%
- Corner/Convenience/Gas Station - 16.2%
- Church/Community Organization - 12.9%
- Food Bank/Pantry - 9.8%

Sources: • 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 93-98]
Notes: • Asked of all respondents.
Meals Prepared at Home

The majority (87.7%) of Total Area adults eats meals prepared at home on at least four days per week.

- In contrast, 12.3% of survey respondents eat meals prepared at home fewer than four days per week.

Number of Days Eating Meals at Home Each Week
(Total Area Adults, 2011)

- Four/More Days 87.7%
- Three Days 5.9%
- Two Days 3.6%
- One Day/Less 2.8%

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 99]
Notes: Asked of all respondents.

- Highest among Richmond County adults.

Eat Meals at Home Fewer Than Four Days Per Week

- Hoke County 10.7%
- Montgomery County 11.7%
- Moore County 11.2%
- Richmond County 15.6%
- Total Area 12.3%

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 99]
Notes: Asked of all respondents.
Viewed by demographic, Total Area men are more likely to eat out.

Eat Meals at Home Fewer Than 4 Days Per Week
(Total Area, 2011)

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 99)

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of: early death; coronary heart disease; stroke; high blood pressure; type 2 diabetes; breast and colon cancer; falls; and depression. Among children and adolescents, physical activity can: improve bone health; improve cardiorespiratory and muscular fitness; decrease levels of body fat; and reduce symptoms of depression. For people who are inactive, even small increases in physical activity are associated with health benefits.

Personal, social, economic, and environmental factors all play a role in physical activity levels among youth, adults, and older adults. Understanding the barriers to and facilitators of physical activity is important to ensure the effectiveness of interventions and other actions to improve levels of physical activity.

Factors **positively** associated with adult physical activity include: postsecondary education; higher income; enjoyment of exercise; expectation of benefits; belief in ability to exercise (self-efficacy); history of activity in adulthood; social support from peers, family, or spouse; access to and satisfaction with facilities; enjoyable scenery; and safe neighborhoods.

Factors **negatively** associated with adult physical activity include: advancing age; low income; lack of time; low motivation; rural residency; perception of great effort needed for exercise; overweight or obesity; perception of poor health; and being disabled. Older adults may have additional factors that keep them from being physically active, including lack of social support, lack of transportation to facilities, fear of injury, and cost of programs.

Among children ages 4 to 12, the following factors have a positive association with physical activity:

- Gender (boys)
- Belief in ability to be active (self-efficacy)
- Parental support

Among adolescents ages 13 to 18, the following factors have a positive association with physical activity:

- Parental education
- Gender (boys)
- Personal goals
- Physical education/school sports
- Belief in ability to be active (self-efficacy)
- Support of friends and family

Environmental influences positively associated with physical activity among children and adolescents include:

- Presence of sidewalks
- Having a destination/walking to a particular place
- Access to public transportation
- Low traffic density
- Access to neighborhood or school play area and/or recreational equipment

People with disabilities may be less likely to participate in physical activity due to physical, emotional, and psychological barriers. Barriers may include the inaccessibility of facilities and the lack of staff trained in working with people with disabilities.

– Healthy People 2020 (www.healthypeople.gov)
Leisure-Time Physical Activity

One-fourth (25.2%) of Total Area adults report no leisure-time physical activity in the past month.

- Nearly identical to statewide findings.
- Similar to national findings.
- Satisfies the Healthy People 2020 target (32.6% or lower).
- Less favorable in Montgomery and Richmond counties.

Marks a significant decrease (an improvement) since 1999 (although similar to 2003 and 2007 findings).

Lack of leisure-time physical activity in the area is higher among adults age 40+, lower-income residents, and Hispanics.

---

**No Leisure-Time Physical Activity in the Past Month**

(Total Area, 2011)

- Healthy People 2020 Target = 32.6% or Lower

---

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 101)
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

---

Sources:
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 101)

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Sedentary Lifestyles

A total of 56.4% of Total Area adults are considered to be sedentary, based on reported physical activity in the past month.

- Highest in Richmond County; lowest in Hoke County.
- Denotes a significant decrease (improvement) since 1999.

Those more likely to be sedentary include:

- Adults 40+ (note the positive correlation with age).
- Lower-income residents.
- Hispanics.

For purposes of this assessment, adults who exercise fewer than three times per week for at least 20 minutes per occasion are considered to be “sedentary.”

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 188]
Notes: ● Asked of all respondents.
- In this case, the term “sedentary” refers to exercising fewer than 3 times per week for 20 minutes at a time.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Amenities Within Walking Distance

A total of 18.4% of survey respondents indicate that their workplace is within walking distance of their home.

- Notably lower among Hoke County respondents.

### Workplace is Within Walking Distance of Home

Just under one-third (32.5%) of survey respondents indicates that there is a playground or park located within walking distance of their home.

- Highest in Moore County; lowest in Hoke County.

### Have a Park or Playground Within Walking Distance of Home
One-fifth (20.9%) of survey respondents can purchase healthy foods within walking distance of their home.

- No difference by county.

### Can Purchase Healthy Foods Within Walking Distance of Home

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>23.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>20.7%</td>
</tr>
<tr>
<td>Moore County</td>
<td>21.3%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>18.4%</td>
</tr>
<tr>
<td>Total Area</td>
<td>20.9%</td>
</tr>
</tbody>
</table>

Sources:  
● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 106]

Notes:  
● Asked of all respondents.

### Neighborhood Attributes

Survey respondents were next presented with a series of neighborhood amenities which can facilitate physical activity and asked whether their particular neighborhood offers such amenities.

The largest share of responses (91.5%) was for having a safe environment for walking during the daytime, followed by a lack of heavy traffic (73.0%).

- Other amenities present in the neighborhoods of Total Area respondents include safe environments for nighttime walking (reported by 58.0% of respondents) and adequate lighting (53.6%).

- Amenities mentioned less often include safe crosswalks (29.6%) and good sidewalks (21.8%).

### Neighborhood Attributes Conducive to Physical Activity (Total Area, 2011)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is Safe For Walking (Daytime)</td>
<td>91.5%</td>
</tr>
<tr>
<td>Does Not Have Heavy Traffic</td>
<td>73.0%</td>
</tr>
<tr>
<td>Is Safe For Walking (Night)</td>
<td>58.0%</td>
</tr>
<tr>
<td>Has Adequate Lighting</td>
<td>53.6%</td>
</tr>
<tr>
<td>Has Safe Crosswalks</td>
<td>29.6%</td>
</tr>
<tr>
<td>Has Good Sidewalks</td>
<td>21.8%</td>
</tr>
</tbody>
</table>

Sources:  
● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 107-112]

Notes:  
● Asked of all respondents.
Weight Status

Because weight is influenced by energy (calories) consumed and expended, interventions to improve weight can support changes in diet or physical activity. They can help change individuals’ knowledge and skills, reduce exposure to foods low in nutritional value and high in calories, or increase opportunities for physical activity. Interventions can help prevent unhealthy weight gain or facilitate weight loss among obese people. They can be delivered in multiple settings, including healthcare settings, worksites, or schools.

The social and physical factors affecting diet and physical activity (see Physical Activity topic area) may also have an impact on weight. Obesity is a problem throughout the population. However, among adults, the prevalence is highest for middle-aged people and for non-Hispanic black and Mexican American women. Among children and adolescents, the prevalence of obesity is highest among older and Mexican American children and non-Hispanic black girls. The association of income with obesity varies by age, gender, and race/ethnicity.

- Healthy People 2020 (www.healthypeople.gov)

Body Mass Index (BMI), which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m²). To estimate BMI using pounds and inches, use: [weight (pounds)/height (inches²)] x 703.

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m² and obesity as a BMI of ≥30 kg/m². The rationale behind these definitions is based on epidemiological data that show increases in mortality with BMIs above 25 kg/m². The increase in mortality, however, tends to be modest until a BMI of 30 kg/m² is reached. For persons with a BMI of ≥30 kg/m², mortality rates from all causes, and especially from cardiovascular disease, are generally increased by 50 to 100 percent above that of persons with BMIs in the range of 20 to 25 kg/m².


### Classification of Overweight and Obesity by BMI

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI (kg/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5 – 24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>25.0 – 29.9</td>
</tr>
<tr>
<td>Obese</td>
<td>≥30.0</td>
</tr>
</tbody>
</table>


Adult Weight Status

Healthy Weight

Based on self-reported heights and weights, 28.6% of Total Area adults are at a healthy weight.

- Comparable to national findings.
- Fails to satisfy the Healthy People 2020 target (33.9% or higher).
- Least favorable in Richmond County; most favorable in Moore County.

“Healthy weight “means neither underweight, nor overweight (BMI = 18.5-24.9).
Denotes a significant decrease since 1999 (although similar to 2003 and 2007 findings).

Healthy Weight
(Percent of Adults With a Body Mass Index Between 18.5 and 24.9)

Healthy People 2020 Target = 33.9% or Higher

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>30.4%</td>
<td>27.0%</td>
<td>31.9%</td>
<td>22.2%</td>
<td>28.6%</td>
<td>31.7%</td>
</tr>
<tr>
<td>2003</td>
<td>27.0%</td>
<td>31.9%</td>
<td>22.2%</td>
<td>28.6%</td>
<td>31.7%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>29.3%</td>
<td>28.6%</td>
<td>31.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>30.2%</td>
<td>29.3%</td>
<td>28.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 197]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Based on reported heights and weights of all respondents.
● The definition of healthy weight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), between 18.5 and 24.9.
● Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Overweight Status

A total of 7 in 10 Total Area adults (70.0%) are overweight.
- Higher than the North Carolina prevalence.
- Similar to the US overweight prevalence.
- Highest in Richmond County; lowest in Moore County.
- Significantly higher than baseline survey findings.

Prevalence of Total Overweight
(Percent of Overweight or/Obese Adults; Body Mass Index of 25.0 or Higher)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>62.9%</td>
<td>67.9%</td>
<td>69.1%</td>
<td>70.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>67.9%</td>
<td>69.1%</td>
<td>70.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>69.1%</td>
<td>70.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>70.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 197]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: ● Based on reported heights and weights of all respondents.
● The definition of overweight is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 25.0, regardless of gender. The definition for obesity is a BMI greater than or equal to 30.0.
● Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Here, “overweight” includes those respondents with a BMI value ≥25.
“Obese” (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥30.

Further, 32.5% of Total Area adults are obese.

- Less favorable than North Carolina findings.
- Less favorable than US findings.
- Similar to the Healthy People 2020 target (30.6% or lower).
- No difference by county.

Denotes a statistically significant increase in obesity since 1999.

### Prevalence of Obesity

*Percent of Obese Adults; Body Mass Index of 30.0 or Higher*

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy People 2020 Target = 30.6% or Lower</td>
<td>31.2%</td>
<td>36.8%</td>
<td>29.7%</td>
<td>36.0%</td>
<td>32.5%</td>
<td>28.6%</td>
<td>28.5%</td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 197]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Obesity is notably more prevalent among:

- Those between the ages of 40 and 64.
- Lower-income respondents.
- Black and Hispanic residents.

### Prevalence of Obesity

*Percent of Obese Adults; Body Mass Index of 30.0 or Higher; Total Area, 2011*

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy People 2020 Target = 30.6% or Lower</td>
<td>33.9%</td>
<td>31.1%</td>
<td>27.7%</td>
<td>39.3%</td>
<td>28.1%</td>
<td>39.8%</td>
<td>29.4%</td>
<td>27.2%</td>
<td>46.0%</td>
<td>37.5%</td>
<td>31.5%</td>
<td>32.5%</td>
</tr>
</tbody>
</table>

Sources:
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 197]

Notes:
- Based on reported heights and weights, asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.
Obese adults are more likely to report a number of adverse health conditions. Among these are:

- Hypertension (high blood pressure).
- High cholesterol.
- Activity limitations.
- Diabetes.
- “Fair” or “poor” physical health.
- 3+ days of poor mental health.

Obese residents are also more likely to have overweight children.

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 10, 41, 116, 122, 155-156, 201]

Notes: Based on reported heights and weights, asked of all respondents.
Weight Management

Health Advice

A total of 36.0% of adults have been advised to control their weight by a doctor, nurse or other health professional.

- Similar by county (not shown).
- Among overweight adults, statistically unchanged from that first reported in 2007.
- Note that 70.5% of obese adults have been told by a health professional that they need to control their weight (while 3 in 10 have not).
  - This satisfies the Healthy People 2020 target of 31.8% or higher.

Physician, Nurse, or Other Health Professional Has Advised Weight Control (By Weight Classification)

Individuals who are at a healthy weight are less likely to:
- Develop chronic disease risk factors, such as high blood pressure and dyslipidemia.
- Develop chronic diseases, such as type 2 diabetes, heart disease, osteoarthritis, and some cancers.
- Experience complications during pregnancy.
- Die at an earlier age.

All Americans should avoid unhealthy weight gain, and those whose weight is too high may also need to lose weight.

- Healthy People 2020 (www.healthypeople.gov)

One-third (33.5%) of Total Area adults who are overweight say that they are both modifying their diet and increasing their physical activity to try to lose weight.

- Statistically similar to that reported among overweight adults in 2007.
Note: 30.5% of Total Area adults report that they are trying to lose weight through a combination of diet and exercise, similar to what was reported in the Total Area in 2007.

**Trying to Lose Weight by Both Modifying Diet and Increasing Physical Activity**

(By Weight Classification)

![Bar chart showing percentage of adults trying to lose weight by weight classification for Total Area 2007 and 2011.]

Total Area 2007:
- Overweight/Obese: 32.4%
- Obese: 28.2%

Total Area 2011:
- Overweight/Obese: 33.5%
- Obese: 30.5%

**Childhood Overweight & Obesity**

In children and teens, body mass index (BMI) is used to assess weight status – underweight, healthy weight, overweight, or obese. After BMI is calculated for children and teens, the BMI number is plotted on the CDC BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking. Percentiles are the most commonly used indicator to assess the size and growth patterns of individual children in the United States. The percentile indicates the relative position of the child’s BMI number among children of the same sex and age.

BMI-for-age weight status categories and the corresponding percentiles are shown below:

- Underweight: <5th percentile
- Healthy Weight: ≥5th and <85th percentile
- Overweight: ≥85th and <95th percentile
- Obese: ≥95th percentile

Centers for Disease Control and Prevention.

Based on the heights/weights reported by surveyed parents, 35.4% of Total Area children age 5 to 17 are overweight or obese (≥85th percentile).

- Comparable to that found nationally.
- Comparable by county (note that the sample size for children in Montgomery County was too small to be reliable).
- Statistically higher among boys and among children age 5 to 12.
Child Total Overweight Prevalence
(Percent of Children 5-17 Who Are Overweight/Obese; Body Mass Index in the 85th Percentile or Higher)

Further, 20.0% of Total Area children age 5 to 17 are obese (≥95th percentile).

- Similar to the national percentage.
- Fails to satisfy the Healthy People 2020 target (14.6% or lower for children age 2-19).
- Lowest in Moore County (note that the sample size for children in Montgomery County was too small to be reliable).

Statistically higher among boys and among children age 5 to 12.

Child Obesity Prevalence
(Percent of Children 5-17 Who Are Obese; Body Mass Index in the 95th Percentile or Higher)
In 2005, an estimated 22 million Americans struggled with a drug or alcohol problem. Almost 95% of people with substance use problems are considered unaware of their problem. Of those who recognize their problem, 273,000 have made an unsuccessful effort to obtain treatment. These estimates highlight the importance of increasing prevention efforts and improving access to treatment for substance abuse and co-occurring disorders.

Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include:

- Teenage pregnancy
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Other sexually transmitted diseases (STDs)
- Domestic violence
- Child abuse
- Motor vehicle crashes
- Physical fights
- Crime
- Homicide
- Suicide

The field has made progress in addressing substance abuse, particularly among youth. According to data from the national Institute of Drug Abuse (NIDA) Monitoring the Future (MTF) survey, which is an ongoing study of the behaviors and values of America’s youth between 2004 and 2009, a drop in drug use (including amphetamines, methamphetamine, cocaine, hallucinogens, and LSD) was reported among students in 8th, 10th, and 12th grades. Note that, despite a decreasing trend in marijuana use which began in the mid-1990s, the trend has stalled in recent years among these youth. Use of alcohol among students in these three grades also decreased during this time.

Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Social attitudes and political and legal responses to the consumption of alcohol and illicit drugs make substance abuse one of the most complex public health issues. In addition to the considerable health implications, substance abuse has been a flash-point in the criminal justice system and a major focal point in discussions about social values: people argue over whether substance abuse is a disease with genetic and biological foundations or a matter of personal choice.

Advances in research have led to the development of evidence-based strategies to effectively address substance abuse. Improvements in brain-imaging technologies and the development of medications that assist in treatment have gradually shifted the research community's perspective on substance abuse. There is now a deeper understanding of substance abuse as a disorder that develops in adolescence and, for some individuals, will develop into a chronic illness that will require lifelong monitoring and care.

Improved evaluation of community-level prevention has enhanced researchers' understanding of environmental and social factors that contribute to the initiation and abuse of alcohol and illicit drugs, leading to a more sophisticated understanding of how to implement evidence-based strategies in specific social and cultural settings.

A stronger emphasis on evaluation has expanded evidence-based practices for drug and alcohol treatment. Improvements have focused on the development of better clinical interventions through research and increasing the skills and qualifications of treatment providers.

— Healthy People 2020 (www.healthypeople.gov)
High-Risk Alcohol Use

Current Drinking

A total of 41.2% of area adults had at least one drink of alcohol in the past month (current drinkers).

- Lower than the statewide proportion.
- Lower than the national proportion.
- Highest in Moore County, lowest in Richmond County.

 Marks a statistically significant increase overall since 1999.

### Current Drinkers

<table>
<thead>
<tr>
<th>County</th>
<th>1999</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>32.0</td>
<td>38.0</td>
<td>39.1</td>
<td>41.2</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>43.6</td>
<td>58.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>46.1</td>
<td>44.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>34.5</td>
<td>41.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>41.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>44.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>58.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Current Drinkers (Total Area, 2011)

- Current drinking is more prevalent among men, young adults, and higher-income residents.

<table>
<thead>
<tr>
<th>Group</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.2%</td>
<td>34.4%</td>
<td>51.0%</td>
<td>36.9%</td>
<td>32.4%</td>
<td>37.1%</td>
<td>47.9%</td>
<td>43.5%</td>
<td>36.5%</td>
<td>37.2%</td>
<td>39.4%</td>
<td>41.2%</td>
<td></td>
</tr>
</tbody>
</table>

### Sources
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 206)

### Notes
- Asked of all respondents.
- Current drinkers are those who had at least one alcoholic drink in the past month.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Current drinkers are those who had at least one drink of alcohol in the month preceding the interview. For the purposes of this study, a “drink” is considered one can or bottle of beer, one glass of wine, one can or bottle of wine cooler, one cocktail, or one shot of liquor.
A total of 3.9% of area adults averaged two or more drinks of alcohol per day in the past month (chronic drinkers).

- Similar to the statewide proportion.
- Similar to the national proportion.
- No difference by county.
- Statistically unchanged since 1999.

**Chronic Drinkers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>5.6%</td>
<td>2.4%</td>
<td>3.0%</td>
<td>5.2%</td>
<td>3.9%</td>
<td>3.5%</td>
<td>5.6%</td>
</tr>
<tr>
<td>2003</td>
<td>4.0%</td>
<td>5.5%</td>
<td>4.5%</td>
<td>3.9%</td>
<td>3.9%</td>
<td>3.5%</td>
<td>5.6%</td>
</tr>
<tr>
<td>2007</td>
<td>4.0%</td>
<td>5.5%</td>
<td>4.5%</td>
<td>3.9%</td>
<td>3.9%</td>
<td>3.5%</td>
<td>5.6%</td>
</tr>
<tr>
<td>2011</td>
<td>4.0%</td>
<td>5.5%</td>
<td>4.5%</td>
<td>3.9%</td>
<td>3.9%</td>
<td>3.5%</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

**Chronic drinking is more prevalent among men.**

**Chronic Drinkers**

<table>
<thead>
<tr>
<th>Category</th>
<th>Men (%)</th>
<th>Women (%)</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>7.0%</td>
<td>0.9%</td>
<td>5.3%</td>
<td>3.7%</td>
<td>2.2%</td>
<td>3.8%</td>
<td>4.7%</td>
<td>4.3%</td>
<td>3.5%</td>
<td>3.8%</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

**Sources:**
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 207)
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Asked of all respondents.
- Chronic drinkers are defined as having 60+ alcoholic drinks in the past month.
- The state definition for chronic drinkers is males consuming 2+ drinks per day and females consuming 1+ drink per day.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

**RELATED ISSUE:**
See also Stress in the Mental Health & Mental Disorders section of this report.
Binge Drinking

A total of 9.8% of Total Area adults are binge drinkers.

- Similar to North Carolina findings.
- More favorable than national findings.
- Satisfies the Healthy People 2020 target (24.3% or lower).
- Lowest in Moore County.
- Marks a significant increase since 1999 (although similar to 2003 and 2007 findings).

Binge Drinkers

*Healthy People 2020 Target = 24.3% or Lower*

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke</th>
<th>Montgomery</th>
<th>Moore</th>
<th>Richmond</th>
<th>Total</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>11.3%</td>
<td>9.6%</td>
<td>7.6%</td>
<td>12.5%</td>
<td>9.8%</td>
<td>11.0%</td>
<td>16.7%</td>
</tr>
<tr>
<td>2003</td>
<td>7.5%</td>
<td>11.3%</td>
<td>10.1%</td>
<td>9.8%</td>
<td>19.9%</td>
<td>11.6%</td>
<td>9.8%</td>
</tr>
<tr>
<td>2007</td>
<td>9.6%</td>
<td>11.3%</td>
<td>10.1%</td>
<td>9.8%</td>
<td>19.9%</td>
<td>11.6%</td>
<td>9.8%</td>
</tr>
<tr>
<td>2011</td>
<td>11.3%</td>
<td>9.6%</td>
<td>7.6%</td>
<td>12.5%</td>
<td>9.8%</td>
<td>11.0%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Binge drinking is more prevalent among:

- Men (especially those under age 40).
- Adults under age 40.

Binge Drinkers

*Healthy People 2020 Target = 24.3% or Lower*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Men 18-39: 26.8%</th>
<th>Women 18-39: 18.0%</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>15.6%</td>
<td>4.1%</td>
<td>7.0%</td>
<td>11.7%</td>
<td>10.1%</td>
<td>9.8%</td>
<td>9.6%</td>
<td>11.4%</td>
<td>8.0%</td>
<td>9.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Binge drinkers are defined as adults having 5+ alcoholic drinks on any one occasion in the past month.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Binge drinkers include adults who report drinking 5 or more alcoholic drinks on any single occasion during the past month.
Professional Advice to Reduce Alcohol Consumption

A total of 2.4% of Total Area adults acknowledge that a healthcare professional has advised them to reduce their alcohol consumption at some point in the past year.

- Lowest in Hoke County.
- Nearly identical to the 2007 prevalence.

The prevalence is higher among chronic and binge drinkers, as identified through the survey.

Advised to Reduce Alcohol Consumption by a Healthcare Professional in the Past Year
(By Level of Alcohol Consumption)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 64]
Notes: Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Prescription Drug Abuse

A total of 3.4% of Total Area adults acknowledge the abuse of a prescription medication in the past year (either sharing prescriptions or using a prescription not prescribed to them).

- No significant difference by county.

Prescription drug abuse is more prevalent among:

- Adults under age 40.
- Hispanics and adults of “Other” races.

Note: As self-reported measures – and because these indicators reflect potentially illegal behavior – it is reasonable to expect that they might be underreported, and that actual illicit prescription drug use and illegal drug use in the community are likely higher.
Illegal Drug Use

A total of 3.0% of Total Area adults acknowledge the illegal use of “street drugs” (i.e., marijuana, cocaine, methamphetamine, etc.) in the past year.

- Similar by county.

Illegal Drug Use by Member of Household in the Past Year

Illegal drug use is more prevalent among:

- Men.
- Adults under age 40.
- Residents of “Other” races.

Illegal Drug Use by Member of Household in the Past Year (Total Area, 2011)

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 67]
Notes:
- Asked of all respondents.
- In this case the term “illegal drug use” is a person using marijuana, cocaine, methamphetamine or any other street drug.
Alcohol & Drug Treatment

A total of 3.6% of Total Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Similar to national findings.
- Similar by county.
- Nearly identical to previous findings.

Have Ever Sought Professional Help for an Alcohol/Drug-Related Problem

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 65)
        ● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: ● Asked of all respondents.
        ● Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least one serious tobacco-related illness. In addition, tobacco use costs the US $193 billion annually in direct medical expenses and lost productivity.

Scientific knowledge about the health effects of tobacco use has increased greatly since the first Surgeon General’s report on tobacco was released in 1964.

Tobacco use causes:

- Cancer
- Heart disease
- Lung diseases (including emphysema, bronchitis, and chronic airway obstruction)
- Premature birth, low birth weight, stillbirth, and infant death

There is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes heart disease and lung cancer in adults and a number of health problems in infants and children, including: severe asthma attacks; respiratory infections; ear infections; and sudden infant death syndrome (SIDS).

Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontitis, and tooth loss. Cigar use causes cancer of the larynx, mouth, esophagus, and lung.

– Healthy People 2020 (www.healthypeople.gov)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 22.8% of Total Area adults currently smoke cigarettes, either regularly (16.7% every day) or occasionally (6.1% on some days).
Higher than statewide findings.

Higher than national findings.

Fails to satisfy the Healthy People 2020 target (12% or lower).

Particularly high in Richmond County; lowest in Moore County.

The current smoking percentage has decreased overall (although similar to 2007 findings).

Cigarette smoking is more prevalent among:

- Men.
- Adults under the age of 40.
- Lower-income residents.
- Blacks and residents of “Other” races.

Note also:

- 25.2% of women of child-bearing age (ages 18 to 44) currently smoke. This is notable given that tobacco use increases the risk of infertility, as well as the risks for miscarriage, stillbirth and low birthweight for women who smoke during pregnancy.
**Current Smokers**
(Total Area, 2011)

Healthy People 2020 Target = 12% or Lower

**Smoking Cessation**

Health Advice About Smoking Cessation

One-half (50.6%) of smokers say that a doctor, nurse or other health professional has recommended in the past year that they quit smoking.

- Comparable to the national percentage.
- Fails to satisfy the Healthy People 2020 objective (80% or higher).
- Statistically similar to 1999 and 2007 findings, although below the high 61.4% reported in 2003.

**Have Stopped Smoking for One Day or Longer in the Past Year in an Attempt to Quit Smoking**
(Among Everyday Smokers)

Healthy People 2020 Target = 80% or Higher

**Sources:**
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 202-203]

**Notes:**
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level. "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
- Includes regular and occasion smokers (everyday and some days).

**Sources:**
- 2011 PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 58]

**Notes:**
- Asked of respondents who smoke cigarettes every day.
Length of Time Since Quitting

Among former smokers, 72.5% report that it has been more than five years since they quit smoking.

- Another 19.8% quit between one and five years ago.

Method Used to Quit Smoking

Most former smokers (86.3%) quit “cold turkey.”

- Another 4.1% relied on some type of over-the-counter aide (such as a patch or gum), and 4.1% used prescription medication in order to quit.
ACCESS TO HEALTH SERVICES
Health Insurance Coverage

Perceived Importance of Health Insurance Coverage

Among Total Area respondents, the vast majority (92.5%) considers healthcare insurance coverage to be “very important.”

- Another 4.0% of respondents gave “somewhat important” responses.
- Less than one percent of survey respondents consider healthcare insurance coverage to be unimportant.

Perceived Importance of Healthcare Insurance Coverage (Total Area, 2011)

Very Important 92.5%
Somewhat Important 4.0%
Neutral 2.9%
Not Very Important 0.1%
Not At All Important 0.5%

Statistically similar by county.
Statistically unchanged over time.

Perceive Healthcare Coverage to be “Very Important”

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 124]
Notes: Asked of all respondents.
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Type of Healthcare Coverage

A total of 51.7% of Total Area adults age 18 to 64 report having healthcare coverage through private insurance. Another 36.8% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Supplemental Coverage

Among adults age 65 and older, two-thirds (67.9%) have other supplemental health insurance, in addition to their Medicare coverage.

- Lower than that reported among Medicare recipients nationwide.
- Statistically unchanged over time.
Among employed respondents in the Total Area, 72.2% report that their employer offers healthcare coverage.

- Highest in Montgomery County.
- Marks a statistically significant decrease over time.

**Respondent’s Employer Offers Healthcare Coverage**

(Among Employed Respondents)

![Chart showing healthcare coverage by county and year.](chart)

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 136]
Notes: ● Excludes unemployed respondents, those who do not know if their employer offers coverage, and those who otherwise chose not to respond.

Among employed respondents whose employer offers coverage, 74.8% participate in the plan.

- Highest in Richmond County; lowest in Montgomery County.
- Marks a statistically significant decrease since 1999.

**Respondent Participates in His/Her Own Employer’s Healthcare Coverage Plan**

(Among Respondents Whose Own Employer Offers Healthcare Coverage)

![Chart showing participation in employer's plan by county and year.](chart)

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 137]
Notes: ● Among respondents whose employer offers insurance coverage.

Among those respondents who elect not to participate in their employers’ plan, most mentioned cost as their reason, while many take advantage of military benefits and others are covered under a spouse’s plan.
Among employed respondents with healthcare coverage through their own employer, 48.7% indicate that they alone have coverage, while 12.5% rely on coverage for themselves and a spouse and 38.7% report that their entire family is covered.

*Note the following illustration of healthcare coverage over time in the Total Area.*

### Family Members Covered by Employer-Provided Insurance
(Among Respondents With Healthcare Coverage Through Their Own Employer)

<table>
<thead>
<tr>
<th>Year</th>
<th>Self Only</th>
<th>Self &amp; Spouse</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area 1999</td>
<td>45.3%</td>
<td>14.2%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Total Area 2003</td>
<td>52.8%</td>
<td>15.3%</td>
<td>31.9%</td>
</tr>
<tr>
<td>Total Area 2007</td>
<td>55.8%</td>
<td>13.9%</td>
<td>30.3%</td>
</tr>
<tr>
<td>Total Area 2011</td>
<td>48.7%</td>
<td>12.5%</td>
<td>38.7%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 138; 127]
Notes: Among respondents whose employer offers insurance coverage.

Among respondents with coverage through their employer, 17.9% report that there is no cost to employees for their coverage. The median cost of coverage to employees is $77 per month.

- Highest in Montgomery County.
- Higher than the median responses reported in 1999 and 2007 (lower than reported in 2003).
- *Note that, when asked among respondents with coverage through their own or through someone else’s employer, the median cost to the employee was reported as slightly higher, at $100 per month.*

### Median Cost per Month of Employer-Provided Coverage
(Among Respondents With Healthcare Coverage Through Their Own Employer)

<table>
<thead>
<tr>
<th>County</th>
<th>1999</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>$46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>$119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>$77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>$77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area Adults Who Participate in Employer’s Coverage Plan</td>
<td>$85</td>
<td>$50</td>
<td>$77</td>
<td></td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 139]
Notes: Among respondents who participate in their employer’s coverage plan.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
- Among Total Area respondents with insurance through their own or through someone else’s employer, the median monthly employee cost of coverage was $100.
As seen in the following chart, the median monthly cost has increased since 1999 for “self” coverage as well as “family” coverage, while decreasing for “self and spouse” coverage.

**Median Cost per Month of Employer-Provided Coverage**
(Among Respondents With Healthcare Coverage Through Their Own Employer; By Persons Covered)

![Chart showing median cost per month of employer-provided coverage]

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 139]
Notes: ● Among respondents who participate in their own employer’s coverage plan.

Most respondents who have health insurance coverage through an employer (their own or someone else’s) indicate that the employer pays for all (26.7%) or more than half (35.1%) of the monthly insurance premium for the employee alone (not including dependents).

- However, about one-fourth said the employer pays none (14.1%) or less than half (12.9%).
- It is very important to keep in mind the high uncertainty for this inquiry; many adults (about 20%) were unable to answer and are excluded from these percentages.

**Portion of Monthly Premium Which Employer Pays for Employee Alone, Not Including Dependents**
(Among Total Area Adults With Healthcare Coverage Through Own or Someone Else’s Employer, 2011)

![Pie chart showing portion of monthly premium]

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 129]
Notes: ● Reflects respondents with healthcare coverage provided through an employer (whether self or spouse).
With regard to coverage for dependents, nearly one-half (48.8%) of respondents with coverage through an employer (their own or someone else’s) indicate that the employer pays for none of the monthly insurance premium for dependent coverage.

- Again, it is very important to keep in mind the high uncertainty for this inquiry; many adults (about 33%) were unable to answer and are excluded from these percentages.

**Portion of Monthly Premium Which Employer Pays for Dependents**
(Among Total Area Adults With Healthcare Coverage Through Own or Someone Else’s Employer, 2011)

- None 48.8%
- Less Than Half 15.9%
- One-Half 9.7%
- More Than Half 17.0%
- Entire Premium 8.6%

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 110]
Notes: Reflects respondents with healthcare coverage provided through an employer (whether self or spouse).
Lack of Health Insurance Coverage

Among adults under 65, 11.5% report having no insurance coverage for healthcare expenses.

- Lower than the state finding.
- Lower than the national finding.
- The Healthy People 2020 target is universal coverage (0% uninsured).
- Similar by county.
- Marks a statistical improvement over previous findings.

Lack of Healthcare Insurance Coverage
(Among Adults 18-64)

Healthy People 2020 Target = 0.0% (Universal Coverage)

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2003</th>
<th>2007</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>8.9</td>
<td>12.7</td>
<td>10.2</td>
<td>15.0</td>
<td>11.5</td>
<td>14.9</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>12.7</td>
<td>11.5</td>
<td>22.7</td>
<td>20.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>11.5</td>
<td>11.5</td>
<td>11.5</td>
<td>11.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td>11.5</td>
</tr>
<tr>
<td>NC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td>11.5</td>
</tr>
<tr>
<td>US</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td>11.5</td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 210]
- 2011-PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents under the age of 65.
- Trending, prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

The following population segments are more likely to be without healthcare insurance coverage:

- Men.
- Adults under 40.
- Residents living at lower incomes (note the 23.0% uninsured prevalence among low-income adults).
- Hispanics and respondents of "Other" races.
As might be expected, uninsured adults in the Total Area are less likely to have a regular source for medical care or to receive preventive health screenings, and are more likely to have experienced difficulties accessing healthcare.
Among Total Area adults without healthcare coverage, more than one-half have never had coverage (7.9%) or have been without coverage for more than a year (47.0%).

- On the other hand, 20.3% have been without coverage fewer than 6 months, and 24.6% have gone between 6 and 12 months without coverage.

Recent Lack of Coverage (Insurance Instability)

Among currently insured adults in the Total Area, 8.1% report that they were without healthcare coverage at some point in the past year.

- Higher than US findings.
- No difference by county.
- Marks a statistically significant decrease (improvement) in insurance instability.
Among insured adults, the following segments are more likely to have gone without healthcare insurance coverage at some point in the past year:

- Women.
- Adults under age 40.
- Lower-income residents.
- Blacks and Hispanics.

**Went Without Healthcare Insurance Coverage At Some Point in the Past Year**
(Among Insured Adults; Total Area, 2011)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Coverage Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>5.9%</td>
</tr>
<tr>
<td>Women</td>
<td>10.1%</td>
</tr>
<tr>
<td>18 to 39</td>
<td>12.3%</td>
</tr>
<tr>
<td>40 to 64</td>
<td>7.8%</td>
</tr>
<tr>
<td>65+</td>
<td>2.3%</td>
</tr>
<tr>
<td>Low Income</td>
<td>15.8%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>3.6%</td>
</tr>
<tr>
<td>White</td>
<td>6.5%</td>
</tr>
<tr>
<td>Black</td>
<td>11.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18.0%</td>
</tr>
<tr>
<td>Other</td>
<td>3.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 133]

Notes:
- Asked of all insured respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. "Low Income" includes households with incomes up to 200% of the federal poverty level. "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

Among Total Area adults who currently have insurance coverage, but say there was a time in the past year when they did not, nearly one-half (49.1%) reported 12 months without coverage.

**Months Without Coverage in Past Year**
(Among Currently Insured Adults Reporting a Time Without Insurance in the Past Year, 2011)

- Less Than 1 Month: 2.9%
- 1-2 Months: 16.9%
- 3-4 Months: 11.2%
- 5-6 Months: 15.6%
- 7-11 Months: 4.3%
- 12 Months: 49.1%

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 134]

Notes: Reflects respondents with healthcare coverage.

Among adults without insurance at some point in the past year, the reasons given most often reflected prohibitive costs, followed by a job loss or reduction in hours, and coverage being denied or cancelled by the carrier.
Difficulties Accessing Healthcare

Access to comprehensive, quality healthcare services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. It impacts: overall physical, social, and mental health status; prevention of disease and disability; detection and treatment of health conditions; quality of life; preventable death; and life expectancy.

Access to health services means the timely use of personal health services to achieve the best health outcomes. It requires three distinct steps: 1) Gaining entry into the healthcare system; 2) Accessing a healthcare location where needed services are provided; and 3) Finding a healthcare provider with whom the patient can communicate and trust.

– Healthy People 2020 (www.healthypeople.gov)

Perceived Ease of Obtaining Medical Care

More than one-half of Total Area adults (56.2%) consider the ease with which they are able to obtain local medical services to be “excellent” or “very good.”

- Another 25.1% gave “good” ratings.

However, 18.7% of residents consider the ease of obtaining medical services to be “fair” or “poor.”

- Higher in Hoke and Richmond counties; lowest in Moore County.
- Statistically unchanged over time.
Ease of Obtaining Medical Care is “Fair” or “Poor”

The following residents are more critical of the ease of obtaining medical services:

- Adults under age 40.
- Residents with lower incomes.
- Non-Whites.
- Uninsured adults.

Ease of Obtaining Medical Care is “Fair” or “Poor”
(Total Area, 2011)
Barriers to Healthcare Access

Difficulties Accessing Prescription Medications

A total of 18.2% of Total Area adults say that cost prevented them from obtaining a needed prescription medication at some point in the past year.

- Higher than the US prevalence.
- Highest in Richmond County; lowest in Moore County.
- Statistically unchanged over time.
- 63.0% of these adults consider this to be a “regular problem.”

As might be expected, Total Area adults without health insurance are much more likely to report that cost was a barrier when seeking prescription medication in the past year, as are adults under 65, lower-income residents and Non-Whites.

Cost Prevented Prescription Medication in Past Year

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 36-37]
● 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: ● Asked of all respondents.
● Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Cost Prevented Prescription Medication in Past Year
(Total Area, 2011)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 36]

Notes: ● Asked of all respondents.
● Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g. “White” reflects non-Hispanic White respondents).
● Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Difficulties Accessing Routine Healthcare

Among all Total Area adults, 11.5% had difficulty obtaining routine healthcare at some point in the past year.

- Unfavorably high in Richmond County.
- Statistically similar to previous findings.

Had Difficulty Obtaining Routine Medical Care in the Past Year

Adults more likely to report problems obtaining a medical appointment in the past year:

- Women.
- Adults under 65.
- Respondents with lower incomes.
- Non-Whites.
- Uninsured adults.

Sources: [PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 19)]
Notes: [Asked of all respondents.]

Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Among these adults, 29.5% had trouble obtaining routine medical care once in the past year; 35.9% had trouble twice in the past year. Further, 11.8% of these adults report having trouble obtaining routine medical care five times in the past year.

Reasons for difficulty largely included problems with cost or lack of insurance coverage.
A total of 8.1% of parents say there was a time in the past year when they needed medical care for their child, but were unable to get it.

- Similar by county (note that the Montgomery County sample in this case was too small to be reliable).
- Statistically unchanged since 1999.
- Highest among parents of teens.

**Difficulties Accessing Healthcare for Children**

Among the parents experiencing difficulties, the majority cited **difficulty getting an appointment** as the primary reason; others cited problems with **cost or insurance**.
The majority (83.0%) of survey respondents considers preventive routine medical care to be “very important.”

- Another 15.1% gave “somewhat important” opinions, while 2.0% said “not important.”

The percentage of respondents who consider preventive routine medical care to be “very important” is highest in Moore County.

Statistically unchanged since 2007.
The following residents are less likely to consider preventive routine medical care to be “very important”:

- Men.
- Adults under age 40.
- Residents with lower incomes.
- Residents of “Other” races.

Preventive Routine Medical Care is “Very Important”
(Total Area, 2011)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>77.0%</td>
<td>88.8%</td>
<td>79.1%</td>
<td>86.3%</td>
<td>83.0%</td>
<td>79.5%</td>
<td>86.6%</td>
<td>83.6%</td>
<td>82.9%</td>
<td>85.2%</td>
<td>71.0%</td>
<td>83.0%</td>
</tr>
</tbody>
</table>

Sources: 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 18]
Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

Regular Source of Ongoing Care

Most Total Area adults (92.4%) have a doctor, group of doctors, or clinic that they regularly go to when they or someone in their household needs routine healthcare, such as for a regular checkup or tests.

- Statistically similar by county.
- Marks a statistically significant increase since 1999.

Have a Regular Doctor, Group of Doctors, or Clinic for Routine Medical Care

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>92.1%</td>
<td>92.5%</td>
<td>93.5%</td>
<td>90.7%</td>
<td>92.4%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 22, 24]
Notes:
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Survey respondents with a regular source for ongoing medical care reported a median count of three visits in the past year.
When viewed by demographic characteristics, the following population segments are less likely to have a regular source for routine care:

- Men.
- Adults under age 40.
- Lower-income adults.
- Blacks and Hispanics.

### Have a Regular Doctor, Group of Doctors, or Clinic for Routine Medical Care
(Total Area, 2011)

<table>
<thead>
<tr>
<th>Location</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>95.1%</td>
<td>89.7%</td>
<td>97.5%</td>
<td>94.5%</td>
<td>94.5%</td>
<td>87.5%</td>
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<tr>
<td>Montgomery County</td>
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<tr>
<td></td>
<td>85.9%</td>
<td>92.4%</td>
<td>94.5%</td>
<td>95.1%</td>
<td>94.5%</td>
<td>87.5%</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Moore County</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>92.1%</td>
<td>87.5%</td>
<td>94.3%</td>
<td>97.5%</td>
<td>94.5%</td>
<td>87.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>92.4%</td>
<td>92.5%</td>
<td>88.5%</td>
<td>85.9%</td>
<td>94.5%</td>
<td>87.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: • 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 22]

Notes: • Asked of all respondents.
• Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
• Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

### Location of Care

The following table outlines the location of survey respondents’ regular source for medical care, segmented by county of residence. As shown:

- In Hoke County, the largest shares receive routine care in **Raeford** (mentioned by 26.2%), **Fayetteville** (25.5%) or at **Fort Bragg** (23.3%).
- In Montgomery County, 45.4% receive routine care in **Troy**.
- In Moore County, 58.0% receive routine care in **Pinehurst**.
- In Richmond County, 46.3% receive routine care in **Rockingham**.
Community Location of Doctor’s Office
(By Respondent’s County of Residence)

<table>
<thead>
<tr>
<th>County</th>
<th>Dr. Location</th>
<th>%</th>
<th>County</th>
<th>Dr. Location</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>Raeford</td>
<td>26.2</td>
<td>Moore</td>
<td>Pinehurst</td>
<td>58.0</td>
</tr>
<tr>
<td>Fayetteville</td>
<td>25.5</td>
<td></td>
<td>Southern Pines</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td>Fort Bragg</td>
<td>23.3</td>
<td></td>
<td>Robbins</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Hope Mills</td>
<td>3.7</td>
<td></td>
<td>Aberdeen</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Pinehurst</td>
<td>3.2</td>
<td></td>
<td>Moore County</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Other (each &lt;3%)</td>
<td>18.1</td>
<td></td>
<td>Other (each &lt;3%)</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>Montgomery</td>
<td>Troy</td>
<td>45.4</td>
<td>Richmond</td>
<td>Rockingham</td>
<td>46.3</td>
</tr>
<tr>
<td>Pinehurst</td>
<td>9.0</td>
<td></td>
<td>Hamlet</td>
<td>15.9</td>
<td></td>
</tr>
<tr>
<td>Albemarle</td>
<td>6.3</td>
<td></td>
<td>Richmond</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Stanly County</td>
<td>6.2</td>
<td></td>
<td>Pinehurst</td>
<td>6.2</td>
<td></td>
</tr>
<tr>
<td>Asheboro</td>
<td>6.1</td>
<td></td>
<td>Southern Pines</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Mount Gilead</td>
<td>4.2</td>
<td></td>
<td>Ellerbe</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Other (each &lt;3%)</td>
<td>22.8</td>
<td></td>
<td>Other (&lt;3%)</td>
<td>11.5</td>
<td></td>
</tr>
</tbody>
</table>

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 23]
Notes: ● Asked of all respondents with a regular source for medical care.

Recent Utilization of Primary Care Services

Length of Time Since Last Visit for Routine Healthcare

When asked how long it has been since they last received routine healthcare, most Total Area adults report visits within the past two months. However, 9.0% indicate that it has been more than one year.

Length of Time Since Most Recent Routine Healthcare Visit
(Total Area, 2011)

- 1 Month or Less 43.0%
- 4.1 to 12 Months 22.0%
- 3.1 to 4 Months 4.0%
- 2.1 to 3 Months 9.1%
- 1.1 to 2 Months 12.9%
- >12 Months 9.0%

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 25]
Notes: ● Reflects the total sample of respondents.

Routine Healthcare Visits Within the Past Year

In all, 90.3% of Total Area adults report receiving routine healthcare at least once in the past year.
- The median response was three such visits in the past year.
Type of Facility Used for Most Recent Visit

When asked what type of facility they most recently used for routine healthcare, the greatest share of respondents (71.1%) identified a particular doctor’s office or private clinic.

Another 7.3% visited a hospital, while 4.1% went to a military facility, and 3.0% went to an urgent care center.

In a follow-up inquiry, respondents were asked whether this site is the one generally chosen for routine healthcare. Overall, 84.2% responded affirmatively.

Rating of Most Recent Visit

The majority of Total Area adults gave “excellent” (44.7%) or “very good” (34.1%) ratings of their most recent routine healthcare visit.

- Another 15.0% gave “good” ratings, while 6.2% said “fair” or “poor.”
- By type of facility used, note that care obtained at a hospital or urgent care center received the highest “fair/poor” responses, followed closely by care obtained at a clinic site.

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 26]
Notes: ● Reflects the total sample of respondents.

Sources: ● PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 28]
Notes: ● Among the total sample of respondents.
Low (“fair” or “poor”) evaluations of routine healthcare visits have not changed significantly over time in the Total Area. On a positive note, “excellent” ratings have increased significantly from the 1999 survey findings.

Resolution of Medical Problems

Most survey respondents (94.4%) feel their medical problem was taken care of during their most recent routine healthcare visit.

- Comparable by county.
- Denotes a statistically significant increase over time.

In addition, 93.7% of Total Area adults indicate that they were seen by a medical person or other health professional during their most recent visit. Among these people, 44.1% saw a family or general practitioner, while 11.5% saw a physician’s assistant, and 10.9% saw an internist. Another 7.7% saw some type of MD (not specified/not known), while 6.4% saw a nurse practitioner, and 4.5% saw a nurse at their most recent routine healthcare visit.
Most Total Area adults (89.5%) feel that they are able to obtain their recent routine healthcare appointment as soon as they wanted, with a reported median wait time of three days.

- Lowest in Hoke County; notably higher in Montgomery and Moore counties.
- Statistically similar to previous findings.

Adults under age 40 and lower-income residents are less likely to be able to obtain a medical appointment when desired.
Treatment by Staff

The vast majority (98.2%) of survey respondents feel they were treated with respect during their most recent routine healthcare visit.

- Comparable by county.
- Unchanged from 2007 findings.

Another 96.8% of Total Area adults feel the staff understood their health problem during their most recent routine healthcare visit.

- Comparable by county.
- Statistically similar to previous findings.

---

**Was Treated With Respect During Most Recent Routine Healthcare Visit**

<table>
<thead>
<tr>
<th>County</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>98.0%</td>
<td>98.2%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>98.6%</td>
<td>98.2%</td>
</tr>
<tr>
<td>Moore County</td>
<td>98.6%</td>
<td>97.6%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>98.2%</td>
<td>97.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>97.8%</td>
<td>98.2%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 34]
Notes: Asked of all respondents.

**Staff Understood Health Problem During Most Recent Routine Healthcare Visit**

<table>
<thead>
<tr>
<th>County</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>96.2%</td>
<td>97.5%</td>
<td>96.8%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>96.7%</td>
<td>97.7%</td>
<td>96.8%</td>
</tr>
<tr>
<td>Moore County</td>
<td>97.7%</td>
<td>95.6%</td>
<td>96.8%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>95.6%</td>
<td>97.7%</td>
<td>96.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>94.7%</td>
<td>97.5%</td>
<td>96.8%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 35]
Notes: Asked of all respondents.

Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Interest in Case Management Services

More than 6 in 10 survey respondents (61.6%) would utilize case management services, if these were available to them.

- Another 9.2% of respondents might use such services if available, while 29.2% would not.

Would Use Case Management Services if Available
(Total Area, 2011)

- No difference in interest by county.
- Statistically similar to 2007 findings.

Would Use Case Management Services if Available
(Total Area, 2011)

Respondents were asked:
“If an individual were available to assist you with monitoring and coordinating your healthcare, such as answering questions about your medications, working with your insurance company, and answering questions about your treatment plan, would you use their services?”
Use of Emergency Services

A total of 37.0% of Total Area adults report that they or a member of their household have received emergency healthcare in the past year.

- Lowest in Montgomery County.
- Identical to 1999 survey findings.

Use of emergency healthcare services is more prevalent among Total Area women, adults between the ages of 40 and 64, and lower-income residents.
When asked to specify which facility was used for emergency services, just over one-half (51.7%) of survey respondents indicated FirstHealth Moore Regional Hospital.

- Other facilities utilized include FirstHealth Richmond Memorial Hospital (mentioned by 12.9%), Sandhills Regional Medical Center (6.5%), Womack Army Medical Center (6.1%), Cape Fear Valley Health System (5.7%), and FirstHealth Montgomery Memorial Hospital (4.4%).

### Specific Emergency Facility Used in the Past Year
(Respondents w/Household Members Who Received Emergency Care in the Past Year; 2011)

<table>
<thead>
<tr>
<th>Facility</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirstHealth Moore Reg’l Hosp</td>
<td>51.7%</td>
</tr>
<tr>
<td>Cape Fear Valley Health System</td>
<td>5.7%</td>
</tr>
<tr>
<td>Womack Army Med Ctr</td>
<td>6.1%</td>
</tr>
<tr>
<td>Sandhills Reg’l Med Ctr</td>
<td>6.5%</td>
</tr>
<tr>
<td>FirstHealth Richmond Mem’l Hosp</td>
<td>12.9%</td>
</tr>
<tr>
<td>Other</td>
<td>12.7%</td>
</tr>
</tbody>
</table>

### Difficulty Accessing Emergency Care

A total of 4.4% of Total Area adults say that there was a time in the past year when they or someone in their household needed emergency healthcare because of illness or injury, but were unable to get it.

- Highest in Richmond County.
- Statistically unchanged over time.

### Unable to Receive Emergency Care in the Past Year When Needed

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>2.6%</td>
<td>5.7%</td>
<td>3.3%</td>
<td>7.0%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2003</td>
<td>4.5%</td>
<td>4.4%</td>
<td>4.8%</td>
<td>4.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2007</td>
<td>4.4%</td>
<td>4.4%</td>
<td>4.8%</td>
<td>4.4%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2011</td>
<td>4.4%</td>
<td>4.4%</td>
<td>4.8%</td>
<td>4.4%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 14)

Notes: ● Reflects those respondents with a household member who received emergency care in the past year.
Adults more likely to be unable to access emergency services in the past year include young adults, lower-income residents, and the uninsured.

Unable to Receive Emergency Care in the Past Year When Needed
(Total Area, 2011)

Among adults who were unable to access emergency services in the past year, 45.9% indicate that this happened once, while 32.7% were unable to access services twice and 11.1% reported being unable to obtain emergency services three times in the past year. A total of 10.4% of these people mentioned not being able to access emergency services four or more times in the past year.

Reasons for their inability to access emergency services included references to cost or insurance coverage, lack of appointment, poor quality physicians, and location, to name a few.
The health of the mouth and surrounding craniofacial (skull and face) structures is central to a person’s overall health and well-being. Oral and craniofacial diseases and conditions include: dental caries (tooth decay); periodontal (gum) diseases; cleft lip and palate; oral and facial pain; and oral and pharyngeal (mouth and throat) cancers.

The significant improvement in the oral health of Americans over the past 50 years is a public health success story. Most of the gains are a result of effective prevention and treatment efforts. One major success is community water fluoridation, which now benefits about 7 out of 10 Americans who get water through public water systems. However, some Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have greater rates of oral diseases. A person’s ability to access oral healthcare is associated with factors such as education level, income, race, and ethnicity.

Oral health is essential to overall health. Good oral health improves a person’s ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions. However, oral diseases, from cavities to oral cancer, cause pain and disability for many Americans. Good self-care, such as brushing with fluoride toothpaste, daily flossing, and professional treatment, is key to good oral health. Health behaviors that can lead to poor oral health include:

- Tobacco use
- Excessive alcohol use
- Poor dietary choices

Barriers that can limit a person’s use of preventive interventions and treatments include:

- Limited access to and availability of dental services
- Lack of awareness of the need for care
- Cost
- Fear of dental procedures

There are also social determinants that affect oral health. In general, people with lower levels of education and income, and people from specific racial/ethnic groups, have higher rates of disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Community water fluoridation and school-based dental sealant programs are 2 leading evidence-based interventions to prevent tooth decay.

Major improvements have occurred in the nation’s oral health, but some challenges remain and new concerns have emerged. One important emerging oral health issue is the increase of tooth decay in preschool children. A recent CDC publication reported that, over the past decade, dental caries (tooth decay) in children ages 2 to 5 have increased.

Lack of access to dental care for all ages remains a public health challenge. This issue was highlighted in a 2008 Government Accountability Office (GAO) report that described difficulties in accessing dental care for low-income children. In addition, the Institute of Medicine (IOM) has convened an expert panel to evaluate factors that influence access to dental care.

Potential strategies to address these issues include:

- Implementing and evaluating activities that have an impact on health behavior.
- Promoting interventions to reduce tooth decay, such as dental sealants and fluoride use.
- Evaluating and improving methods of monitoring oral diseases and conditions.
- Increasing the capacity of State dental health programs to provide preventive oral health services.
- Increasing the number of community health centers with an oral health component.

– Healthy People 2020 (www.healthypeople.gov)
Approximately two-thirds (65.6%) of Total Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- Less favorable than statewide findings.
- Similar to national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- Lowest in Richmond County; higher in Hoke and Moore counties.

Statistically unchanged since 1999.

### Have Visited a Dentist or Dental Clinic Within the Past Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>72.3%</td>
<td>61.3%</td>
<td>70.7%</td>
<td>54.6%</td>
<td>65.6%</td>
<td>68.4%</td>
<td>66.9%</td>
</tr>
<tr>
<td>2003</td>
<td>64.4%</td>
<td>60.9%</td>
<td>63.9%</td>
<td>65.6%</td>
<td>68.4%</td>
<td>66.9%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>64.4%</td>
<td>60.9%</td>
<td>63.9%</td>
<td>65.6%</td>
<td>68.4%</td>
<td>66.9%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>64.4%</td>
<td>60.9%</td>
<td>63.9%</td>
<td>65.6%</td>
<td>68.4%</td>
<td>66.9%</td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 39]
- 2011 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

The following population segments are less likely to report recent dental care:

- Seniors.
- Lower-income residents.
- Non-Whites.
- The uninsured.

### Have Visited a Dentist or Dental Clinic Within the Past Year

(Total Area, 2011)

<table>
<thead>
<tr>
<th>Group</th>
<th>Men</th>
<th>Women</th>
<th>18 to 39</th>
<th>40 to 64</th>
<th>65+</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Insured</th>
<th>Uninsured</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy People 2020 Target = 49.0% or Higher</td>
<td>63.9%</td>
<td>67.5%</td>
<td>67.6%</td>
<td>67.2%</td>
<td>58.7%</td>
<td>46.6%</td>
<td>78.7%</td>
<td>70.6%</td>
<td>55.5%</td>
<td>59.6%</td>
<td>54.7%</td>
<td>69.0%</td>
<td>34.2%</td>
<td>65.6%</td>
</tr>
</tbody>
</table>

Sources:
- 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 39]

Notes:
- Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categories (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
A total of 62.4% of residents had an eye exam in the past two years during which their pupils were dilated.

- More favorable than national findings.
- Highest in Hoke and Moore counties; lowest in Montgomery County.

**Recent vision care in the Total Area is less often reported among men, young adults, residents with lower incomes, and Hispanics.**
Personal Access to the Internet

Increasingly, Americans rely on the Internet as a primary source of healthcare information. A total of 78.3% of Total Area adults report having access to the Internet for personal use, either at home, work, or school.

- Highest in Hoke County; lower in Montgomery and Richmond counties.

### Have Access to the Internet for Personal Use (Total Area Adults, 2011)

When viewed by demographic characteristics, the following population segments are less likely to have access to the Internet for personal use:

- Seniors.
- Lower-income adults.
- Blacks and Hispanics.

### Have Access to the Internet for Personal Use (Total Area, 2011)

Sources: ● 2011 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 75]
Notes: ● Asked of all respondents.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondent’s household income as a ratio to the federal poverty level (FPL) for their household size. “Low Income” includes households with incomes up to 200% of the federal poverty level. “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
PERCEPTIONS OF HEALTHCARE
Survey respondents were also asked about their understanding of healthcare reform legislation (the Patient Protection and Affordable Care Act of 2010), as well as about their opinions of the effects that healthcare reform legislation will have: 1) on themselves and their families; 2) on most people in general; and 3) on the country as a whole.

Over one-half of Total Area adults feel that they know either “nothing at all” (17.6%) or “only a little” (34.8%) about how healthcare reform legislation will affect their own family in the future.

Still, just over one-half of respondents (50.8%) believe that they themselves and their families will be “worse off” under healthcare reform legislation (garnering a narrow majority of responses).

However, respondents are more likely to believe that most people and the country as a whole will be either “better off” or unaffected.

Perceived Effects of the 2010 Healthcare Reform Legislation
(By Persons Affected; Total Area, 2011)
Local Healthcare Services

Satisfaction With the Quality of Local Healthcare

More than one-half of Total Area adults (53.0%) are “very satisfied” with the quality of healthcare services available in their community.

- Another 38.1% are “somewhat satisfied,” while 8.9% of Total Area adults gave “not satisfied” responses to the inquiry about the quality of local healthcare.

The prevalence of adults who are “very satisfied” is particularly high in Moore County, but notably lower in Hoke and Richmond counties.

Marks a statistically significant improvement in ratings over time.

“Very Satisfied” With the Quality of Local Healthcare

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 12)
Notes: Asked of all respondents.
The following residents are less satisfied with local healthcare services:

- Adults under age 65.
- Residents with lower incomes.
- Blacks and Hispanics.
- Uninsured adults.

**“Very Satisfied” With the Quality of Local Healthcare**
(Total Area, 2011)

Perceived Need for Area Physicians

Most survey respondents either “strongly agree” (20.8%) or “agree” (43.8%) with the statement, “There are enough physicians in my community.”

- On the other hand, 28.6% of survey respondents disagree, perceiving a need for more physicians in the community.

**“There Are Enough Doctors in My Community”**
(Total Area, 2011)
- Favorably low in Moore County.
- Statistically similar to previous findings.

**Perceive a Need for More Doctors in the Community**

<table>
<thead>
<tr>
<th>County</th>
<th>1999</th>
<th>2003</th>
<th>2007</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>41.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>45.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>65.5%</td>
<td>14.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>33.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>27.6%</td>
<td>28.1%</td>
<td>31.6%</td>
<td>28.6%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 0)

Notes:
- Asked of all respondents.
- Trending prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
- Percentages represent combined “disagree” and “strongly disagree” responses to the statement, “There are enough doctors in my community.”
Attachment B

Richmond County
First-In-Health 2020 Charts
2020 Vision "First in Health" Progress
Category: Economic, Social and Educational Status

Richmond County, North Carolina

Percent living in poverty
Median working income
Unemployment rate
Literacy rate
Percent of population with a HS diploma or higher
High school completion
Percent insured*
Richmond County's overall percentage towards goal

Goals
12%
$22,276
5.5%
90%
95%
95%
100%

Percent below the goal
Percent above the goal

* self reported in 2011

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Chronic Disease

Richmond County, North Carolina

Taking action to control high cholesterol*
Taking action to control high blood pressure*
Perceived disability or physical limitation*
Diabetes prevalence*
Diabetes age-adjusted mortality
Stroke age-adjusted mortality
Cancer age-adjusted mortality
Heart disease age-adjusted mortality
Total age-adjusted mortality
Richmond County's overall percentage towards goal

Goals
83%
95%
19%
8.2%
16.8 deaths per 100,000
55.8 deaths per 100,000
197.4 deaths per 100,000
233.9 deaths per 100,000
770.8 deaths per 100,000

* self reported

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Adult Prevention and Primary Care

Richmond County, North Carolina

<table>
<thead>
<tr>
<th>Metric</th>
<th>2007</th>
<th>2011</th>
<th>Goal</th>
<th>Percent below the goal</th>
<th>Percent above the goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult obesity rate*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonia vaccinations*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flu shots*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate cancer screenings*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pap smears*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammography*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of care*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No leisure time physical activity*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-reported good to excellent physical health*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County's overall percentage towards goal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* self reported in 2011

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Childhood Prevention and Primary Care

Richmond County, North Carolina

Accidental injury deaths
- Percent of children overweight
- Asthma hospitalizations
- Dental sealant rate among 5th graders
- Decayed, missing, or filled teeth in grade K
- Decayed teeth in grade K
- Richmond County's overall percentage towards goal

Goals
- 2.4 per 100,000
- 31.5%
- 201.3 per 100,000
- 41%
- 60%
- 23%

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Mother and Child Health

Richmond County, North Carolina

- Mother smoked during pregnancy
- Teen pregnancy rate
- Very low birth weight
- Prenatal care
- Infant mortality
- Richmond County's overall percentage towards goal

Goals:
- 7%
- 35 per 1000
- 1.4%
- 100%
- 9.5 per 1000

Percent below the goal
- 100
- 80
- 60
- 40
- 20
- 0
- 20
- 40
- 60
- 80
- 100

Percent above the goal

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Behavioral Health

Richmond County, North Carolina

Goal

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
<th>Percent above the goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress*</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Utilization of mental health services*</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Connectivity*</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td>Depression*</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Tobacco use*</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Alcohol abuse*</td>
<td>3.2%</td>
<td></td>
</tr>
<tr>
<td>Suicide</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

Richmond County's overall percentage towards goal

-100 -80 -60 -40 -20 0 20 40 60 80 100

Percent below the goal

* self reported

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Community Assets

Richmond County, North Carolina

Goals
- 750 students per nurse
  - 100%
- 3 per 10,000
- 4 per 10,000
- 20 per 10,000
- 88%

Have a primary care physician*

Psychologists and psych associates per 10,000 population

Dentists per 10,000 population

Physicians per 10,000 population

Availability of care*

Richmond County's overall percentage towards goal

Percent below the goal  Percent above the goal

At 100% of goal

* self reported

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Communicable Diseases

Richmond County, North Carolina

**Goals**
- 4.9 cases per 100,000
- 103 cases per 100,000
- 7.9 cases per 100,000
- 7.3 cases per 100,000

**Tuberculosis cases**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**Gonorrhea cases**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**Syphilis cases**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**AIDS cases**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**Richmond County's overall percentage towards goal**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**Percent below the goal**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

**Percent above the goal**
- 2007: [Graphical representation]
- 2011: [Graphical representation]

Updated based on data available as of April 2012.
2020 Vision "First in Health" Progress
Category: Safety

Richmond County, North Carolina

- Substantiated child maltreatment
- Domestic violence
- Property crime rate
- Violent crime rate
- Motor vehicle death rate
- Richmond County's overall percentage towards goal

Goals:
- 16 cases per 1000 children
- 1%
- 3226 per 100,000
- 204 per 100,000
- 19.6 per 100,000

Percent below the goal
Percent above the goal

Data updated as of April 2012.
Five County Service Region's overall progression towards the goals

Updated based on data available as of April, 2012.
## 2007 and 2011 Survey Highlights
### Richmond County

<table>
<thead>
<tr>
<th></th>
<th>2007 PRC Results</th>
<th>2011 PRC Results</th>
<th>State Data</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>18.8%</td>
<td>17.2%</td>
<td>9.8%</td>
<td>-76%</td>
</tr>
<tr>
<td>Smoking</td>
<td>23.1%</td>
<td>31.2%</td>
<td>19.7%</td>
<td>-58%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>19.2%</td>
<td>15%</td>
<td>22.7%</td>
<td>+34%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>43.1%</td>
<td>46.3%</td>
<td>31.5%</td>
<td>-47%</td>
</tr>
<tr>
<td>Obese or overweight</td>
<td>75.3%</td>
<td>77.6%</td>
<td>65.3%</td>
<td>-19%</td>
</tr>
</tbody>
</table>

Note: Present with one or more CV risk/behaviors
- 2007 – 93.2%
- 2011 – 95.8%
- Regional Rate – 88.8%
Attachment C

PRC Specific Measures
<table>
<thead>
<tr>
<th>Health Indicator</th>
<th>2007</th>
<th>2011</th>
<th>Regional Rate (Hoke, Moore, Montgomery, Richmond)</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceive community “fair/poor” health overall</td>
<td>23.4%</td>
<td>22.2%</td>
<td>16.4%</td>
<td>n/a</td>
</tr>
<tr>
<td>Experience “poor/fair” health overall</td>
<td>22.2%</td>
<td>27.3%</td>
<td>20.3%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Experience signs of chronic depression</td>
<td>34.1%</td>
<td>30.7%</td>
<td>27.1%</td>
<td>n/a</td>
</tr>
<tr>
<td>Sought professional help for “mental/emotional” problems</td>
<td>20.6%</td>
<td>24.4%</td>
<td>21.2%</td>
<td>n/a</td>
</tr>
<tr>
<td>Sought professional help for “mental/emotional” problems (among those w/chronic depression)</td>
<td>48.3%</td>
<td>45.2%</td>
<td>47.0%</td>
<td>n/a</td>
</tr>
<tr>
<td>Prevalence of high B/P</td>
<td>43.1%</td>
<td>46.3%</td>
<td>39.9%</td>
<td>31.5%</td>
</tr>
<tr>
<td>Prevalence of high blood cholesterol</td>
<td>53.8%</td>
<td>38.6%</td>
<td>36.6%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Present 1 or more CV risk/behaviors</td>
<td>93.2%</td>
<td>95.8%</td>
<td>88.8%</td>
<td>n/a</td>
</tr>
<tr>
<td>Prevalence of diabetes</td>
<td>18.8%</td>
<td>17.2%</td>
<td>17.2%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Dx borderline or pre-diabetic</td>
<td>n/a</td>
<td>5.4%</td>
<td>6.0%</td>
<td>n/a</td>
</tr>
<tr>
<td>Flu vaccine prior yr (65+)</td>
<td>73.9%</td>
<td>n/a</td>
<td>64.7%</td>
<td>69.7%</td>
</tr>
<tr>
<td>Consume 2+ fresh, froz, cann fruit daily</td>
<td>39.40%</td>
<td>19.6%</td>
<td>26.0%</td>
<td>n/a</td>
</tr>
<tr>
<td>Consume 3+ fresh, froz, or canned vegs daily</td>
<td>23.6%</td>
<td>10.5%</td>
<td>12.5%</td>
<td>n/a</td>
</tr>
<tr>
<td>Consume 2+ whole grain bread daily</td>
<td>30.0%</td>
<td>21.6%</td>
<td>22.9%</td>
<td>n/a</td>
</tr>
<tr>
<td>Consume at least 1 sugar</td>
<td>n/a</td>
<td>61.1%</td>
<td>57.2%</td>
<td>n/a</td>
</tr>
<tr>
<td>sweet bev yesterday</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Eat meals at home</td>
<td>n/a</td>
<td>15.6%</td>
<td>12.3%</td>
<td>n/a</td>
</tr>
<tr>
<td>&lt;4X weekly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No leisure physical</td>
<td>31.1%</td>
<td>30.4%</td>
<td>25.2%</td>
<td>25.7%</td>
</tr>
<tr>
<td>activity in past</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary</td>
<td>62.6%</td>
<td>63.3%</td>
<td>56.4%</td>
<td>n/a</td>
</tr>
<tr>
<td>Workplace w/in</td>
<td>n/a</td>
<td>21.3%</td>
<td>18.4%</td>
<td>n/a</td>
</tr>
<tr>
<td>walking distance/hm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park/playground w/in</td>
<td>n/a</td>
<td>31.2%</td>
<td>32.5%</td>
<td>n/a</td>
</tr>
<tr>
<td>walking distance/hm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can purchase healthy</td>
<td>n/a</td>
<td>18.4%</td>
<td>20.9%</td>
<td>n/a</td>
</tr>
<tr>
<td>foods w/in walking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>distance/hm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy Weight BMI</td>
<td>23.5%</td>
<td>22.2%</td>
<td>28.6%</td>
<td>n/a</td>
</tr>
<tr>
<td>b/w 18.5-24.9 adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence total over</td>
<td>76%</td>
<td>77.6%</td>
<td>70.0%</td>
<td>65.3%</td>
</tr>
<tr>
<td>weight adults BMI 25.0+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence obese adults</td>
<td>36.6%</td>
<td>36.0%</td>
<td>32.5%</td>
<td>28.6%</td>
</tr>
<tr>
<td>BMI 30.0+</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overweight total (child</td>
<td>n/a</td>
<td>32.3%</td>
<td>35.4%</td>
<td>n/a</td>
</tr>
<tr>
<td>BMI 85%) 5-17y</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Child obesity (BMI</td>
<td>n/a</td>
<td>24.4</td>
<td>20.0%</td>
<td>n/a</td>
</tr>
<tr>
<td>95%) 5-17y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smokers</td>
<td>23.1%</td>
<td>31.2%</td>
<td>22.8%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Cost Prevented Rx Med.</td>
<td>25.1%</td>
<td>25.8%</td>
<td>18.2%</td>
<td>n/a</td>
</tr>
<tr>
<td>in past year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty obtaining</td>
<td>11.9%</td>
<td>18.0%</td>
<td>11.5%</td>
<td>n/a</td>
</tr>
<tr>
<td>routine medical care</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>past yr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Trouble obtaining</td>
<td>12.3%</td>
<td>9.2%</td>
<td>8.1%</td>
<td>n/a</td>
</tr>
<tr>
<td>child’s med. appt. in</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>past year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have access to</td>
<td>n/a</td>
<td>74.0%</td>
<td>78.3%</td>
<td>n/a</td>
</tr>
<tr>
<td>internet</td>
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Attachment D

Richmond Community Health Assessment Executive Summary
Richmond County Community Health Assessment

Executive Summary

May 2013

Collaborative effort of Richmond County Health Department, FirstHealth Richmond Memorial Hospital and Richmond County Healthy Carolinians
Richmond County Community Health Opinion Survey Results 2013

Introduction and Methods

Primary data for the Richmond County Community Health Assessment was collected over a two-day period in May 2013. Trained interviewers administered the community health opinion survey to community residents and stakeholders at selected households throughout the County. The survey included questions related to community health problems and issues, access to healthcare and health behaviors, parenting concerns, emergency preparedness, and individual and household demographic characteristics.

Administration of the community health survey was facilitated with the assistance of The North Carolina Institute for Public Health (NCIPH), part of the UNC Gillings School of Global Public Health. Using a two-stage cluster sampling methodology developed by the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) and utilizing population-based sampling weights from each census block; this methodology allows for generalizability of the collected data to the population of Richmond County. Typically, this sampling methodology involves selection of 30 census blocks with seven randomly located interviews sites in each. However, due to the scarcity of households in some Richmond County census blocks, the sampling methodology was modified to include more census blocks with fewer interview locations per block. This ensured that a sufficient number of surveys would be collected to accurately represent County residents.

In the first stage of sampling, 40 census blocks were randomly selected with a probability proportionate to the population size with the most populated census blocks more likely to be selected. Two census blocks (clusters 12 and 13) were selected twice. The selected census blocks throughout Richmond County are shown in Figure 1.
Figure 1. Census blocks selected for sampling within Richmond County.

In the second stage of sampling, five random interview locations were selected in each census block. Ten households were selected in each of the census blocks (clusters 12 and 13) that were selected twice. The sample selection was conducted using a Geographic Information Systems (GIS) toolkit design by the CDC. A total of 196 interviews were completed throughout the county, just below the goal of 200 interviews (5 interviews from 40 census blocks) for a sampling success rate of 98%.

Interviewers obtained oral consent in English or Spanish before interviewing potential survey participants. Eligible participants were at least 18 years of age and a resident of the selected households. Responses were recorded at the time of interview either on paper surveys, or electronically using Magellan MobileMapper handheld computers. Tracking forms indicated that contact was attempted at 399 households and made at 246 households, of which 196 resulted in completed surveys, indicating that the contact rate was 49.2% (completed interviews out of housing units where contact was attempted) and the cooperation rate was 83.1% (completed interviews out of housing units where contact was made).
Data were analyzed in SAS 9.3 (Cary, NC), and results for each question in the community health survey are reported as weighted proportions with their 95% confidence intervals (CI). Survey weights were calculated using methods described in the CDC Community Assessment for Public Health Emergency Response (CASPER) toolkit, which incorporates the total number of households in the sampling frame, the number of households in the census block, and the number of interviews collected in each census block. These weights were used to calculate the standard error for each proportion, from which 95% CIs were derived. These confidence intervals should be interpreted as the interval that contains the true value in 95% of repeated samples. Qualitative data were summarized into categorical variables where appropriate. These confidence intervals are displayed on all figures as error bars.

This report contains the results of the community health opinion survey, for use as primary data within the 2013 Richmond County Community Health Assessment. Interpretations of these data are generalizable at the county level, because the sampling method collects responses from residents throughout the county in weighted census blocks. The limitation of this methodology is that stratifications to a finer scale, or within subpopulations of the county, results in imprecise estimates with no meaningful interpretive value. Compared to 2010 Census estimates, demographic information from survey respondents indicate that women were oversampled (57% of respondents vs. 51% of residents) but the sample was otherwise demographically very similar to overall county residents (Table 1).
Demographic Characteristics

Most of the respondents had lived in the county for more than ten years (39.0%; 95% CI: 30.9%, 47.1%) or their whole life (43.5%; 95% CI: 35.0%, 52.0%) with only 2.0% (95% CI: 0.0%, 3.9%) having resided in the county for less than 1 year (data not shown).

The median age of survey respondents was 57 years and ranged in age from 18 to 89 years (Figure 2). The majority of survey respondents were female (57.2%; 95% CI: 49.4%, 65.0%) (Table 1), and most reported white race (64.3%; 95% CI: 52.7%, 75.9%). Nearly 30% of respondents (29.7%; 95% CI: 18.2%, 41.2%) reported black race. Hispanic or Latino ethnicity was reported by 2.6% of respondents (95% CI: 0.0%, 7.0%) and 6.7% spoke a language other than English at home (95% CI: 1.8%, 11.6%) (Table 1). Other languages spoken in the home included Spanish, French, German, Filipino, and Arabic. These demographic characteristics are similar to 2010 Census projections, with the exception of gender and age (Table 1). Women were overrepresented in the sample relative to 2010 Census estimates. The distribution of age among respondents was generally older than that of the county census estimates because individuals interviewed were at least 18 years of age.

Additional demographic information collected includes education, employment status, and household income. High school was the most frequently reported highest level of education completed 34.2%; 95% CI: 26.2%, 42.3%), with 21.4% (95% CI: 14.4%, 28.4%) of respondents reporting an associate degree or vocational training, and 9.7% (95% CI: 4.4%, 14.9%) reporting a bachelor's degree from a 4-year college (Table 1, Figure 3). Many of the respondents were retired (30.7%; 95% CI: 23.8%, 37.7%), and a quarter of respondents worked full-time (24.7%; 95% CI: 19.0%, 30.4%). 11.6% were unemployed (95% CI: 6.5%, 16.7%) and 21.9% were disabled (95% CI: 15.0%, 28.7%) (Table 1). Median household size was 2.0 persons and 57.7% of respondents (95% CI: 48.1%, 67.3%) reported an annual household income at or below 200% of the Federal poverty threshold (Figure 4). Most households had access to the internet (70.7%; 95% CI: 63.1%, 78.3%), with most respondents reporting only 0-1 hours of computer use per day (63.1%; 95% CI: 55.5%, 70.8%) or 2-3 hours per day (22.6%; 95% CI: 16.5%, 28.8%). Most respondents (69.3%; 95% CI: 62.1%, 76.4%) were members of faith organizations (data not shown).
Figure 2. Age distribution of survey respondents (N=196)

Figure 3. Education distribution of survey respondents (N=195)
Figure 4. Poverty distribution of survey respondents (N=196)

Note: Annual household income relative to 200% of the Federal Poverty Level (poverty threshold)
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Weighted Percent(^1) (95% CI)</th>
<th>County Percent(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>42.8 (35.0, 50.6)</td>
<td>49.2</td>
</tr>
<tr>
<td>Female</td>
<td>57.2 (49.4, 65.0)</td>
<td>50.8</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>64.3 (52.7, 75.9)</td>
<td>62.8</td>
</tr>
<tr>
<td>Black or African-American</td>
<td>29.7 (18.2, 41.2)</td>
<td>31.1</td>
</tr>
<tr>
<td>Asian or Pacific-Islander</td>
<td>0.5 (0.0, 1.6)</td>
<td>1.0</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>2.0 (0.0, 3.9)</td>
<td>3.0</td>
</tr>
<tr>
<td>Other</td>
<td>3.5 (0.3, 6.6)</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
</tr>
<tr>
<td>Non-Hispanic/Latino</td>
<td>96.8 (92.3, 100.0)</td>
<td>93.7</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>2.6 (0.0, 7.0)</td>
<td>6.3</td>
</tr>
<tr>
<td>No Response</td>
<td>0.5 (0.0, 1.6)</td>
<td>--</td>
</tr>
<tr>
<td><strong>Language Spoken in Home</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>93.3 (88.4, 98.2)</td>
<td>93.7</td>
</tr>
<tr>
<td>Other</td>
<td>6.7 (1.8, 11.6)</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Education(^4)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school, no diploma</td>
<td>16.9 (10.8, 23.0)</td>
<td>--</td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>34.2 (26.2, 42.3)</td>
<td>--</td>
</tr>
<tr>
<td>Associate's degree or vocational training</td>
<td>21.4 (14.4, 28.4)</td>
<td>--</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>13.8 (8.1, 19.6)</td>
<td>--</td>
</tr>
<tr>
<td>Bachelor's degree</td>
<td>9.7 (4.4, 14.9)</td>
<td>--</td>
</tr>
<tr>
<td>Other</td>
<td>4.0 (0.9, 7.0)</td>
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</tr>
<tr>
<td><strong>Employment Status</strong></td>
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<tr>
<td>Employed full-time</td>
<td>24.7 (19.0, 30.4)</td>
<td>--</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>8.0 (3.9, 12.0)</td>
<td>--</td>
</tr>
<tr>
<td>Retired</td>
<td>30.7 (23.8, 37.7)</td>
<td>--</td>
</tr>
<tr>
<td>Military</td>
<td>1.1 (0.0, 2.5)</td>
<td>--</td>
</tr>
<tr>
<td>Unemployed</td>
<td>11.6 (6.5, 16.7)</td>
<td>11.5(^3)</td>
</tr>
<tr>
<td>Disabled</td>
<td>21.9 (15.0, 28.7)</td>
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</tr>
<tr>
<td>Student</td>
<td>5.1 (2.3, 7.8)</td>
<td>--</td>
</tr>
<tr>
<td>Homemaker</td>
<td>7.1 (2.9, 11.2)</td>
<td>--</td>
</tr>
<tr>
<td>Self-employed</td>
<td>2.5 (0.0, 5.1)</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 1. Demographic characteristics of survey respondents (N=196) and Richmond County.  
Source:\(^1\) 2013 Richmond County Community Health Opinion Survey  
\(^2\) 2012 U.S. Census Quick Facts estimate  
\(^3\) Employment Security Commission of North Carolina, April 2013  
\(^4\) Education is reported by the U.S. Census for ages 25+
Community Problems and Issues

Survey respondents were asked a series of questions related to the health of Richmond County as a whole. Most respondents felt the County was a good (44.3%; 95% CI: 36.4%, 52.1%) or excellent (25.8%; 95% CI 17.6%, 33.9%) place to live. Fewer respondents rated the county as a fair (23.4%; 95% CI: 16.2%, 30.6%) or a poor (6.1%; 95% CI: 2.5%, 9.6%) place to live.

The five health problems perceived to have the greatest impact in Richmond County identified by respondents were: cancer (56.5%; 95% CI: 48.8%, 64.3%), diabetes (51.8%; 95% CI: 44.8%, 58.8%), heart disease/heart attacks (40.6%; 95% CI: 31.4%, 49.9%), obesity/overweight (36.6%; 95% CI: 28.3%, 44.8%) and aging problems (27.9%; 95% CI: 21.2%, 34.6%). Teenage pregnancy (23.7%; 95% CI 16.8%, 30.5%), mental health (22.3%; 95% CI 16.3%, 28.2%), and high blood pressure (18.7%; 95% CI 10.8%, 26.7%) were the next most commonly identified health problems (Figure 5). Most health problems identified by respondents related to aging and chronic disease, which is unsurprising given the age distribution of the sample.

Respondents were asked to indicate the five unhealthy behaviors with the greatest impact on the community as a whole. Illegal drug abuse (71.2%; 95% CI: 65.2%, 77.3%), alcohol abuse (65.5%; 95% CI: 58.1%, 72.8%), smoking and tobacco use (38.7%; 95% CI: 31.5%, 45.8%), lack of exercise (36.7%; 95% CI: 26.5%, 46.8%) and drunk driving (36.0%; 95% CI: 27.6%, 44.5%) were the most frequently identified unhealthy behaviors (Figure 6). Prescription drug abuse (35.6%; 95% CI: 26.1%, 45.0%), having unsafe sex (28.8%; 95% CI: 23.4%, 34.2%), reckless/distracted driving (22.3%; 95% CI: 17.1%, 27.4%), and poor eating habits (20.4%; 95% CI: 14.3%, 26.4%) were also frequently identified as important. Three of the nine most common unhealthy behaviors (tobacco use, physical inactivity, and poor diet) are closely associated with the chronic diseases identified as top health problems. Substance abuse (drugs and alcohol) was perceived to be a common unhealthy behavior and is associated with mental health. Drunk driving and reckless/distracted driving may be linked to the identification of motor vehicle accidents as an important health problem.

When asked about community issues with the greatest impact on the quality of life in Richmond County, respondents identified primarily economic concerns and adolescent/young adult issues. Three of the four most frequently identified issues were economic: unemployment (42.1%; 95% CI: 35.1%, 49.2%), low income and poverty (33.9%; 95% CI: 25.2%, 42.5%), and homelessness (29.5%; 95% CI: 23.1%, 35.9%). Lack of or inadequate health insurance (25.3%; 95% CI: 16.1%, 34.4%) and affordability of health services (21.9%; 95% CI: 15.2%, 28.6%) were also among the top ten identified community issues (Figure 7). Three of the ten most important issues related to teens/young adults: dropping out of school (41.2%; 95% CI: 33.5%, 48.9%), youth crime (18.9%; 95% CI: 13.0%, 24.8%), and availability of positive teen activities (16.9%; 95% CI: 10.9%, 23.0%). Animal control issues were also perceived as significant in Richmond county and it was the fifth most frequently identified issue (26.6%; 95% CI: 19.3%, 33.9%). Economic concerns, such as poverty and the expense of healthcare, are reflective of the current local and
national context while issues pertaining to teens and young adults relate closely to the substance abuse problems identified as common unhealthy behaviors.

**Figure 5.** Most important health problems identified by survey respondents (N=196)

**Figure 6.** Most important unhealthy behaviors identified by survey respondents (N=196)
Figure 7. Community issues that have the greatest impact on quality of life, as identified by survey respondents (N=196)

Personal Health

County residents were asked a number of questions about their personal health. When asked where they received most of their health-related information, the majority of respondents cited their doctor/nurse/pharmacist (55.8%; 95% CI: 49.3%, 62.4%) or the internet (13.9%; 95% CI: 7.6%, 20.2%)(Figure 8). When asked where residents would go for healthcare or advice they overwhelmingly said the doctor’s office/medical clinic (71.1%; 95% CI: 63.9%, 78.3%). Nearly 1 in 5 said they would go to the Hospital/Emergency room (18.5%; 95% CI: 11.8%, 25.2%)(Figure 9). Similarly, almost 1 in 5 residents said they were not covered by a health insurance plan (19.4%; 95% CI: 12.8%, 26.1%)(Figure 10). For those who did have insurance, the type of coverage varied; private insurance 46.1% (95% CI: 36.7%, 55.6%), Medicare 30.5% (95% CI: 23.5%, 37.6%), Medicaid 16.7% (95% CI: 7.8%, 25.6%), Tricare 5.3% (95% CI: 1.9%, 8.7%)(Figure 11). The most commonly cited concerns that were noted for those with insurance were high deductibles (16.8%; 95% CI: 9.5%, 24.0%) and high copays (12.2%; 95% CI: 3.4%, 11.7%) and high prescription costs (7.6%; 95% CI: 3.4%, 11.7%)(Figure 12). Residents were also asked if they had problems getting healthcare in the past 12 months. Only 14.4% replied that they did have a problem (95% CI: 8.7%, 20.2%) and the most common problems were that they couldn’t afford the cost (39.3%; 95% CI: 20.0%, 58.6%), their insurance wouldn’t pay for what they needed or that they didn’t have insurance (32.1%; 95% CI: 13.7%, 50.6%)(Figure 13). The majority of respondents sought healthcare services in either Richmond (68.1%; 95% CI: 61.2%, 74.9%) or Moore County (23.9%; 95% CI: 16.9%, 30.8%), though many other counties
were mentioned as well including the following: Cumberland, Orange, Scotland, Burke, Durham, Hoke, Rowan, Stanly, Wake, Watauga and South Carolina (Figure 14).

A number of questions were asked to gauge physical fitness. When county residents were asked if they exercised once a week for 30 minutes 68.4% (95% CI: 61.5%, 75.3%) replied yes. Of those who said yes, most exercise 3-4 times a week (47.1%; 95% CI: 39.8%, 54.4%) while fewer responded 5-6 times/week (19.9%; 95% CI: 13.8%, 26.1%), 7+ times per week (19.5%; 95% CI: 13.6%, 25.5%) or 1-2 times/week (12.7%; 95% CI: 7.3%, 18.0%)(Figure 15). These same respondents told interviewers that they exercised in their home (71.9%; 95% CI: 68.9%, 80.9%), gym/fitness center (16.0%; 95% CI: 9.3%, 22.7%) and parks (9.7%; 95% CI: 3.8%, 15.6%) primarily (Figure 16). The main reasons that were cited for not exercising at least 30 minutes (31.6%; 95% CI: 24.7%, 38.5%) a week were that residents were physically disabled (39.3%; 95% CI: 26.7%, 52.0%), didn’t have enough time (21.3%; 95% CI: 10.7%, 31.9%), don’t like to exercise (18.0%; 95% CI: 8.1%, 28.0%) or were too tired (11.5%; 95% CI: 3.2%, 19.7%) (Figure 17).

Residents were also asked how many hours per day that they watched TV, played video games or used the computer for recreation (Figure 18). The most common response was 2-3 hours (35.5%; 95% CI: 27.3%, 43.7%) but results were evenly split amongst the other categories. The majority of respondents said they would be interested in utilizing a community garden if they had access (66.0%; 95% CI: 57.1%, 74.9%)(Figure 19).

Several questions were asked to determine smoke exposure and health history. The majority of residents said they were not exposed to secondhand smoke (64.1%; 95% CI: 54.6%, 73.5%) while those that were cited home (25.8%; 95% CI: 17.5, 34.0%) and automobile (15.1%; 95% CI: 9.1%, 21.1%) as the places they were exposed (Figure 20). Roughly a third of respondents told interviewers that they currently smoke cigarettes (31.9%; 95% CI: 23.8%, 40.0%) and only 6.6% said they used some other type of tobacco product (95% CI: 3.2%, 10.0%). Of those who do smoke 29.7% (95% CI: 19.1%, 40.4%) said they would consult a doctor if they needed help to quit while 18.9% (95% CI: 9.8%, 28.1%) said they didn’t know where they would get help to quit and 16.2% (95% CI: 7.6%, 24.8%) said they didn’t want to quit (Figure 21).

Residents reported a number of health conditions (Figure 22). The top three health issues were high blood pressure (49.9%; 95% CI: 38.9%, 54.9%), obesity (34.9%; 95% CI: 27.5%, 42.2%), and high cholesterol (34.4%; 95% CI: 26.6%, 42.2%).

One quarter of respondents had children between the ages of 9-19 (25.1%; 95% CI: 16.8%, 33.3%). Of these 50 households, roughly half said they would allow their children to walk to school using a safe route if available (46.0%; 95% CI: 31.7%, 60.3%). Over half of respondents felt their children were not engaging in any risky behaviors (54.0%; 95% CI: 39.7%, 68.3%)(Figure 23).Parents who thought their children were engaging in risky behaviors sexual activity (20.0%; 95% CI: 8.5%, 31.5%), tobacco use (14.0%; 95% CI: 4.0%, 24.0%), alcohol use
(10.0%; 95% CI: 1.4%, 18.6%) or distracted driving/speeding (10.0%; 95% CI: 1.4%, 18.6%)(Figure 23). Nearly all parents felt comfortable speaking with their children about risky behaviors (97.9%; 95% CI: 93.6%, 100.0%). When parents were asked if they felt their children needed more information about risky behaviors, about a third replied that their children needed more information on one of the 12 risky behaviors (Figure 24).

![Main Source of Health Information](image)

**Figure 8.** Where residents sought health information (N=194)
Figure 9. Where do you go most often for healthcare or advice?

Figure 10. Are you covered by a health insurance plan?
Figure 11. What type of health insurance coverage do you have?
Figure 12. Of those respondents with insurance: "...are there any concerns you have about your health care coverage?"
Figure 13. The specific problems cited by those respondents who said they had a problem getting the healthcare they need in the past 12 months.
Figure 14. In which county do you seek healthcare most often?
Figure 15. How many times do you exercise per week?
Figure 16. Where do you exercise?
Why don’t you exercise?
(N=135)

Figure 17. Why don’t you exercise at least 30 minutes a week?
**Figure 18.** How many hours per day do you watch TV, play video games, or use the computer for recreation?

**Figure 19.** If you had access to a community garden, would you utilize it?
Exposed to Secondhand Smoke (N=196)

Figure 20. Are you exposed to secondhand smoke? If so, where?
Figure 21. Where would you go for help to quit smoking?
Figure 22. Reported health issues.
Figure 23. Parents who felt their children were engaging in risky behaviors.
Figure 24. Do you think your children need more information about the following?

Emergency Preparedness

County residents were asked four different questions about emergency preparedness. Most respondents had smoke detectors only (46.0%; 95% CI: 38.0%, 54.9%) or smoke and carbon monoxide detectors (41.2%; 95% CI: 32.6%, 49.7%)(Figure 25). Roughly half of respondents said they had a family emergency plan (54.8%; 95% CI: 47.1%, 62.5%), however more than half said they did NOT have an emergency supply kit (58.1%; 95% CI: 49.9%, 66.3%)(Figure 26). Finally 17.2% (95% CI: 10.3%, 24.0%) of residents said they had a family member that would require special assistance during an emergency.
Figure 25. Does your household have working smoke and carbon monoxide detectors?
Figure 26. Does your household have a basic emergency supply kit? If so, how many days do you have supplies for?

Summary

Since every resident had a chance of being selected to participate and because the demographics of the sample were shown to be very similar to the County overall, results from this survey can be generalized to the entire county. For example, based on the survey results we can estimate that 58.1% of county residents do not have an emergency supply kit. Similarly, since we found that almost 1 in 5 residents said they were not covered by a health insurance plan (19.4%; 95% CI: 12.8%, 26.1%) we can estimate that there are 9,046 people in Richmond County do not carry health insurance (95% CI: 5968, 12,170). This assumes that there are 46,627 residents in Richmond County based on the most recent estimate from the U.S. Census Bureau (Quick Facts). For unweighted results (for n<190), caution should be used when generalizing the results since the confidence intervals are naturally much wider due to the small sample size.
Attachment E

Richmond Community Health Assessment Tool
Richmond County
Community Health Opinion Survey - 2013

Hello, I am _____ and this is _____ and we are volunteers working with the Richmond County health department, hospitals and community partners. We are talking with people throughout the community today about their opinions on healthcare and other health-related issues in the County. (Show badges/CHOS flyer). All the opinions you share with us will be completely confidential and will be reported as a group summary. The results will help to address the major health and community issues in our county.

The survey is completely voluntary. It should take no longer than 20-30 minutes to complete. We are only interviewing adults 18 and older.

Are you 18 years old or older? (if “yes”)

Would you like to participate? _____ Yes _____ No

(If no, stop the survey here and thank the person for his or her time.)

Eligibility

Do you live at this address? _____ Yes _____ No

(If no, ask if you can speak with someone who lives there or ask if the person lives nearby. If no one is available, stop the survey here and thank the person for his or her time.)
PART 1: Community Problems and Issues

Health Problems

1. Thinking about your community, what kind of place is it to live?
   ______ Excellent ______ Good ______ Fair ______ Poor

2. These next questions are about health problems that have the largest impact on the community as a whole. Please look at this list of health problems. (Give the person the sheet of health problems.) I would like for you to pick the three most important health problems in this county. You can choose up to 5.
   Remember this is your opinion and your choices will not be linked to you in any way. If you do not see a health problem you consider one of the three most important, please let me know and I will add it in. I can also read these out loud as you think about them. (Read health problems if they prefer to have them read.)

   ______ Aging problems
         (Alzheimer’s, arthritis, hearing or vision loss, etc.)
   ______ Asthma
   ______ Birth defects
   ______ Cancer
         What kind?
   ______ Adult dental health
   ______ Child dental health
   ______ Diabetes
   ______ Gun-related injuries
   ______ Heart disease/heart attacks
   ______ High blood pressure
   ______ Autism
   ______ Infant death
         Infectious/Contagious diseases
         (TB, salmonella, pneumonia, flu, etc.)
   ______ Kidney disease
   ______ Liver disease
         Mental health (depression, schizophrenia, suicide etc.)
   ______ Motor vehicle accidents
   ______ Neurological disorders
         (Multiple Sclerosis, muscular dystrophy, A.L.S.)
   ______ Other injuries (drowning, choking, home or work related)
   ______ Obesity/overweight
   ______ Lung disease
         (emphysema, etc.)
   ______ Sexually transmitted diseases (STDs)
   ______ HIV/AIDS
   ______ Stroke
   ______ Teenage pregnancy
   ______ Other

Unhealthy Behaviors

3. These next questions are about unhealthy behaviors that some individuals do that have the largest impact on the community as a whole. Please look at this list of unhealthy behaviors. (Give person the sheet of unhealthy behaviors.) Pick top unhealthy behaviors in this county. Please choose up to 5.
   Remember this is your opinion and your choices will not be linked to you in any way. If you do not see an unhealthy behavior that you consider one of the three most important, please let me know and I will add it in. I can also read these out loud as you think about them. (Read health problems if they prefer to have them read.)

   ______ Alcohol abuse
   ______ Illegal drug abuse
   ______ Prescription drug abuse
   ______ Having unsafe sex
   ______ Lack of exercise
   ______ Not getting immunizations (“shots”) to prevent disease
   ______ Not using child safety seats
   ______ Not using seat belts
         Not going to a dentist for preventive check-ups / care
   ______ Not going to the doctor for yearly check-ups & screenings
   ______ Not getting prenatal (pregancy) care
   ______ Reckless/Distracted driving
   ______ Not washing hands
   ______ Poor eating habits
   ______ Drunk driving
         Smoking/tobacco use
   ______ Suicide
         Violent behavior
   ______ Other:
4. These next questions are about community-wide issues that have the largest impact on the overall quality of life in Richmond County. Please look at this list of community issues. (Give person the sheet of community issues.) Pick the community issues that have the greatest effect on quality of life in this county. Please choose up to 5. Remember this is your opinion and your choices will not be linked to you in any way. If you do not see a community problem you consider one of the most important, please let me know and I will add it in. I can also read these out loud as you think about them. (Read health problems if they prefer to have them read.)

___ Animal control issues
___ Availability of child care
___ Affordability of health services
___ Availability of healthy food choices
___ Bioterrorism
___ Dropping out of school
___ Homelessness
___ Inadequate/unaffordable housing
___ Lack of/inadequate health insurance
___ Lack of culturally appropriate health services.
___ Lack of health care providers
     What kind?
___ Lack of recreational facilities (parks, trails, community centers, etc.)
___ Lack of law enforcement
___ Literacy
___ Secondhand smoke
___ Work safety
___ Availability of healthy family activities
___ Availability of positive teen activities
___ Neglect and abuse (Specify type)
     ___ Elder abuse
     ___ Child abuse
___ Pollution (air, water, land)
___ Low income/poverty
___ Racism
___ Lack of transportation options
___ Unemployment
___ Unsafe, un-maintained roads
___ Unhealthy/unsafe home conditions
___ Violent crime (murder, assault, etc.)
___ Rape/sexual assault
___ Domestic Violence
___ Gang issues
___ Youth crime
Other: ____________________

**PART 2: Personal Health**

Now I am going to ask you some questions about your own personal health. Remember, the answers you give for this survey will not be linked to you in any way.

5. Where do you get most of your health-related information? (DO NOT read the options Please choose only one).

___ Friends and family
___ Doctor/nurse/pharmacist
___ Internet
___ Health Department
___ Television
___ Hospital
___ Help lines (telephone)
___ Books/magazines
___ Free Care Clinic
___ Social media (twitter, facebook)
___ School
___ Church
___ Newspaper
___ Other ___
6. Where do you go most often when you are sick or need advice about your health? (DO NOT read the options. Mark only the one they say. If they cannot think of one, read: Here are some possibilities. Read responses. Choose the one that you usually go to.)

_____ Doctor's office/medical clinic
_____ Health department
_____ Hospital/Emergency Room
_____ Other: __________________________

_____ Veterans Administration Clinic
_____ Urgent Care Center
_____ Free Care Clinic

7. Are you covered by a health insurance plan?  ____ Yes  ____ No

If yes, what type of coverage do you have?

_____ Medicare (includes supplemental policy)
_____ Medicaid
_____ Private insurance (Ex: BCBS, Aetna, Cigna, etc...)  _____ Tricare/VA
_____ Other

If yes, are there any concerns you have about your health care coverage?

_____ High deductibles
_____ High co-pays
_____ High prescription costs
_____ Other  __________________________________________

8. In the past 12 months, did you ever have a problem getting the health care you needed from any type of health care provider or facility?

_____ Yes  ____ No (now skip to question #10)

9. If you did have a problem or you were to have a problem, please indicate on the list below your challenges. You can choose as many of these as you need to. If there was a problem you had that we do not have here, please tell us and I will write it in. (Read Problems.)

a. ___ I didn’t have health insurance.
b. ___ My insurance wouldn’t pay for what I needed.
c. ___ My share of the cost (deductible/co-pay) was too high.
d. ___ Doctor would not take my insurance or Medicaid.
e. ___ I could not afford the cost.
f. ___ I didn’t have a way to get there.
g. ___ I didn’t know where to go.
h. ___ I couldn’t get an appointment.
i. ___ Other: __________________________
10. Please identify which county you seek routine health care in most often? (Choose One)
   a. ___ Moore
   b. ___ Montgomery
   c. ___ Richmond
   d. ___ Randolph
   e. ___ Stanly
   f. ___ Scotland
   g. ___ Cumberland
   h. ___ Hoke
   i. ___ Other: ________________________

11. In the past 12 months, did you have a problem filling a medically necessary prescription?
    ___ Yes  ___ No (now skip to question #13)

12. Since you said “yes”, which of these problems did you have? You can choose as many of these as you need to. If there was a problem you had that we do not have here, please tell us and I will write it in. (Read Problems.)
    a. ___ I didn’t have health insurance.
    b. ___ My insurance didn’t cover what I needed.
    c. ___ My share of the cost (deductible/co-pay) was too high.
    d. ___ Pharmacy would not take my insurance or Medicaid.
    e. ___ I didn’t have a way to get there.
    f. ___ I didn’t know where to go.
    g. ___ Other: ________________________

13. If a friend or family member needed counseling for a mental health or a drug/alcohol abuse problem, who would you tell them to call or talk to? (DO NOT read the options. Mark only the ones they say. If they can’t think of anyone... Here are some possibilities. You can choose as many as you want. Which do you think you would choose?)
    a.____ Private counselor or therapist  e.____ Doctor
    b.____ Support group (e.g., AA, Al-Anon)  f.____ Minister/religious official
    c.____ School counselor  g.____ Other: ________________________
    d.____ Don’t know
14. During a normal week, do you engage in any exercise activity that lasts at least a half an hour?  
   _____ Yes  _____ No (now skip to question #17)

15. Since you said yes, how many times would you say you engage in this activity during a normal week?  
   a. _____ 1 to 2 times/week  
   b. _____ 3 to 4 times/week  
   c. _____ 5 to 6 times/week  
   d. _____ 7 or more times/week

16. Where do you go to exercise or engage in physical activity?  Check all that apply then skip to #18)  
   a. _____ Park  
   b. _____ Public Recreation Center  
   c. _____ Gym/Fitness Center  
   d. _____ Greenway trails  
   e. _____ Home  
   f. _____ Senior Center  
   g. _____ Other: _______________________

17. Since you said “no”, what are the reasons you do not exercise for at least a half hour during a normal week? You can give as many of these reasons as you need to. (DO NOT read the options. Mark only the ones they say. This is to test their knowledge. If they really can’t think of one, then mark I don’t know.)  
   a. _____ My job is physical or hard labor  
   b. _____ Exercise is not important to me.  
   c. _____ I don’t have access to a facility that has the things I need, like a pool, golf course, or a track or no safe place to exercise.  
   d. _____ I don’t have enough time to exercise.  
   e. _____ I don’t like to exercise.  
   f. _____ It costs too much.  
   g. _____ I’m too tired.  
   h. _____ I’m physically disabled.  
   i. _____ Other: _______________________

18. How many hours per day do you watch TV, play video games, or use the computer for recreation?  
   _____ 0-1 hour  _____ 2-3 hours  _____ 4-5 hours  _____ 6+ hours

19. If you had access to a community garden, would you utilize it?  
   _____ Yes  _____ No

20. Are you exposed to secondhand smoke in any of the following places (READ OPTIONS. Check all that apply)?  
   a. _____ Home  
   b. _____ Workplace  
   c. _____ Church  
   d. _____ Automobile  
   e. _____ Other: _______________________
   f. _____ Not exposed to secondhand smoke
21. Do you currently smoke? _____ Yes _____ No
Do you currently use other tobacco products? _____ Yes _____ No
(If no to both, skip to question #23)

22. If yes, where would you go for help if you wanted to quit? (DO NOT read the options. Mark all that apply. Mark only the ones they say.) (This is to test their knowledge.)

a. _____ Quit Now NC
b. _____ Doctor
c. _____ Church
d. _____ Pharmacy
e. _____ Private counselor/therapist
f. _____ Health Department
g. _____ Hospital
h. _____ Other: _______________________
i. _____ I don’t know
j. _____ Not applicable; I don’t want to quit

23. Have you ever been told by a doctor, nurse, or other health professional that you have any of the conditions I am about to read?

a. Asthma _____ Yes _____ No
b. Depression or anxiety disorder _____ Yes _____ No
c. High blood pressure _____ Yes _____ No
d. High cholesterol _____ Yes _____ No
e. Diabetes (not during pregnancy) _____ Yes _____ No
f. Osteoporosis _____ Yes _____ No
g. Overweight/Obesity _____ Yes _____ No

24. Do you have children between the ages of 9 and 19?
   _____ Yes (now go to question #25) _____ No (now skip to question #29)

25. Would you be interested in allowing your child to walk to school if there was a safe route?
   _____ Yes _____ No

26. Do you think your child is engaging in any of the following high risk behaviors I am about to read? (Please answer yes or no after each behavior. Read the list and check all that apply.)

a. _____ Alcohol Use
e. _____ Eating Disorders
b. _____ Tobacco Use
f. _____ Sexual activity
c. _____ Gangs
g. _____ Criminal activities
d. _____ I don’t think my child is engaging in any high risk behaviors.
i. _____ Distracted driving/speeding
j. _____ Skipping school

(If you get questions about other risky behaviors: We are aware that there are other risky behaviors. For the purposes of this survey, however, we are only requesting information about these 9 behaviors or none at all.)
27. Are you comfortable talking to your child about the risky behaviors we just asked about?  
   ____ Yes  ____ No

28. Do you think your child or children need more information about the following problems?  (Read list.  Allow time for a yes or no following each item.  Check all that apply.)  
   a. ____ Alcohol  e. ____ Eating Disorders  i. ____ Distracted driving/speeding  
   b. ____ Tobacco  f. ____ Sexual activity/teen pregnancy  j. ____ Mental health issues/suicide  
   c. ____ HIV  g. ____ STDs  k. ____ Internet safety  
   d. ____ Birth Control  h. ____ Drug Abuse  l. ____ Dating violence  
   m. ____ Any Others? ________

Part 3. Emergency Preparedness

29. Does your household have working smoke and carbon monoxide detectors?  (Mark only one.)  
   ____ Yes, smoke detectors only  ____ Yes, carbon monoxide detectors only  
   ____ Yes, both  ____ No

30. Does your household have a Family Emergency Plan?  
   ________Yes  ________No

31. Does your family have a basic emergency supply kit? If yes, how many days do you have supplies for?  
   ____ No  ____ 3 days  ____ 1 week  ____ 2 weeks  ____ More than 2 weeks

32. Is there anyone living in your home that would require special assistance during an emergency?  
   ____ Yes  ____ No
Part 4. Demographic Questions

This final set of questions are general questions about you, which will only be reported as a group summary of all answers given by survey participants. Again, all or your answers will remain anonymous.

33. How long have you lived in this county?
   _____ less than one year  _____ 1 – 5 years  _____ 6 – 10 years
   _____ more than 10 years  _____ my whole life

34. May I ask what year were you born?  _____ (enter year)
   _____ Refused/No Response

35. Are you Male or Female? (In most cases, this question can be answered by the interviewer without asking.)
   _____ Male  _____ Female

36. Are you of Hispanic origin?
   _____ Yes  _____ No

37. What is your race?
   Ask the question by reading the categories. CHOOSE ONE. If the person is of more than one race or one not written here, check “other” and write in his or her answer.
   _____ Black or African American  _____ American Indian or Alaskan Native
   _____ Asian or Pacific Islander  _____ White
   _____ Other: ______________________

38. A. Do you speak a language other than English at home? (If no, skip to #39.)
   _____ Yes  _____ No

   B. If yes, what language do you speak at home? ______________________

39. What is the highest level of school, college or vocational training that you have finished? (Read choices. Mark only one.)
   _____ Some high school, no diploma
   _____ High school diploma or GED
   _____ Associate’s Degree or Vocational Training
   _____ Some college (no degree)
   _____ Bachelor’s degree
   _____ Graduate or professional degree  _____ Other: ______________________
40. Including yourself, how many people live in your household? ________

41. Is your annual household income GREATER than $XX,XXX before taxes? (Based on answer to question # 40 and the table below.)

___ Yes, income is above threshold ___ Don’t know/Not sure
___ No, income is at or below threshold ___ Refused/No Response

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(Add $8,000 per/year per individual for households greater than 8)

[Note: If you are asked about child support: If you are paying child support but your child is not living with you, this still counts as someone living on your income. Count a member of the household if they live with you for at least half the year.]

42. What is your employment status? I will read a list of choices. Let me know which ones apply to you. (Read choices. Check all that apply.)

a. _____ Employed full-time  d. _____ Military  g. _____ Student
b. _____ Employed part-time  e. _____ Unemployed  h. _____ Homemaker
c. _____ Retired  f. _____ Disabled  i. _____ Self-employed

43. Do you have access to the Internet?  _____ Yes  _____ No

44. How many hours per day do you use the computer?

_____ 0-1 hour  _____ 2-3 hours  _____ 4-5 hours  _____ Don’t know

45. Are you a member of a faith organization?  _____ Yes  _____ No
2013 RICHMOND COUNTY PUBLIC HEALTH SUMMIT

DR. JOHN GRAHAM

NORTH CAROLINA MORTALITY BY CAUSE

- Other causes: 21,550
- Cancer: 18,201
- Heart Disease: 16,959
- Chronic lower respiratory diseases: 4,705
- Cerebrovascular disease: 4,290
- Other unintentional injuries: 2,916
- Alzheimer's Disease: 2,820
- Diabetes mellitus: 1,964
- Nephritis, nephrotic syndrome, &...: 1,705
- Pneumonia & influenza: 1,616
- Septicemia: 1,319
- Unintentional Motor Vehicle Deaths: 1,243

(2011 NC SCHS)
NORTH CAROLINA CANCER DEATH RATES

- Lung/Bronchus Cancer
- Colon/Rectum Cancer
- Breast Cancer
- Prostate Cancer
- Other Cancers

(2011 NC SCHS)

RICHMOND & NEIGHBOR COUNTY STATISTICS

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Sources: US Census Bureau, American Community Survey (2006-2010) & Density Data from U.S. Census Bureau State and County Quick Facts (2010)
### Richmond & Peer County Statistics

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<td>27.5%</td>
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<td>13.3%</td>
<td>179.2</td>
</tr>
<tr>
<td>*Richmond</td>
<td>68,481</td>
<td></td>
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</tr>
<tr>
<td>North Carolina</td>
<td>9,535,483</td>
<td>16.1%</td>
<td>21.6%</td>
<td>10.7%</td>
<td>196.1</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau, American Community Survey (2006-2010) & Density Data from U.S. Census Bureau State and County Quick Facts (2010)

### All Causes Age Adjusted Death Rates per 100,000

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Richmond</td>
<td>1039.6</td>
<td></td>
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<tr>
<td>Bladen</td>
<td>997.1</td>
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<tr>
<td>Scotland</td>
<td>994.2</td>
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<tr>
<td>Hoke</td>
<td>934.2</td>
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<tr>
<td>Anson</td>
<td>929.7</td>
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<tr>
<td>Vance</td>
<td>924.9</td>
<td></td>
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<tr>
<td>Pasquotank</td>
<td>830.3</td>
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<tr>
<td>NC Average</td>
<td>808.4</td>
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<tr>
<td>Montgomery</td>
<td>795.5</td>
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<tr>
<td>Moore</td>
<td>696.8</td>
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</table>

(2007-2011 NC SCHS)
Elevated Diabetes Death Rates in Richmond [Age Adjusted 1990 – 2011]

DIFFERENCES BETWEEN WHITE & MINORITY FEMALES IN RICHMOND

<table>
<thead>
<tr>
<th></th>
<th>Diabetes</th>
<th>Total Cancer</th>
<th>Total Heart Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Female</td>
<td>27.4</td>
<td>177</td>
<td>215.6</td>
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<tr>
<td>Minority Female</td>
<td>70.9</td>
<td>200.6</td>
<td>295.1</td>
</tr>
</tbody>
</table>

(Community Health Assessment Richmond County December 2009)
RICHMOND COUNTY GONORRHEA RATES PER 100,000 POPULATION

- Hispanic: 27.5
- Other non-Hispanic: 58.5
- White non-Hispanic: 93.2
- African American non-Hispanic: 581.3

(2006 - 2010 NC SCHS)

RICHMOND COUNTY NEONATAL DEATH RATES PER 1,000 LIVE BIRTHS

- Other non-Hispanic: 0.2
- Hispanic: 2.8
- White non-Hispanic: 4.2
- African American non-Hispanic: 12.3

(2007-2011 NC SCHS)