FirstHealth
Moore Regional Hospital

Community Health Needs Assessment 2016
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 222,000 individuals in a predominantly rural area of the mid-Carolinas. The system is comprised of five hospitals to include FirstHealth Moore Regional Hospital, FirstHealth Richmond Memorial Hospital, FirstHealth Moore Regional – Hoke Campus, FirstHealth Montgomery Memorial Hospital and Sandhills Regional Hospital (purchase effective Dec. 1, 2016) with a total of 534 licensed beds, fourteen 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, 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 292; 93% are board certified. Across the system’s four hospitals in fiscal year 2015, FirstHealth logged 25,435 discharges and 134,409 visits to hospital emergency departments. Additionally, 272,231 visits were made to FirstHealth Physician Group providers and 19,518 patients were served by EMS. FirstCarolinaCare Insurance Company, an additional component of the community health care infrastructure, serves over 25,000 members. FirstHealth employs just over 4,400 individuals in the region.

Through a formalized Community Benefit Program, FirstHealth responds to the needs of the communities it serves. During fiscal year 2015, FirstHealth met community needs in the areas of financial assistance, service delivery and support of other community efforts with a value of approximately $32.8 million. In addition, more than 100,119 employee and volunteer hours were dedicated to implementing projects and providing services as part of FirstHealth’s Community Benefit Program. FirstHealth’s community benefit and charity care total for fiscal year 2015 was $45.5 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 Moore Regional Hospital
FirstHealth Moore Regional Hospital is a 402-bed, acute care, not-for-profit hospital that serves as the referral center for a 15-county region in the Carolinas. Located in Pinehurst, NC, it is the flagship hospital for FirstHealth of the Carolinas, the region’s first comprehensive health care
network. Moore Regional Hospital opened on Thanksgiving Day, 1929, with 33 beds, five bassinets and a staff of 27. Since then, Moore Regional Hospital has grown to include an active medical staff of 289 physicians, a professional staff of more then 2,700 and an average of 670 volunteers. The hospital offers health care services to people within the four-county primary service area to include Moore, Richmond, Montgomery and Hoke counties.

The hospital offers a full array of services as a tertiary care center. Services offered include but are not limited to rehabilitation, hospitalist program, NICU, surgical services, cancer center, behavioral health, neurology, wound care center, community health services and centers for health and fitness.

**Moore County Demographics**

For the purposes of the FirstHealth Moore Regional Hospital Community Health Needs Assessment, community is defined as Moore County as the primary target audience, which is the county in which the hospital is located. However, Moore Regional Hospital also serves individuals in Montgomery, Hoke and Richmond counties, hence county level data is considered for the surrounding counties through the Community Health Needs Assessment Survey chartered by FirstHealth through Professional Research Consultants (PRC survey) in 2007, 2011 and 2015 (additional details to follow). The target audience reflects an overall representation of the community served by this hospital facility.

The following tables depict demographic information for the FirstHealth Moore Regional Hospital region.

<table>
<thead>
<tr>
<th>Population</th>
<th>Total Population</th>
<th>White (non-Hispanic)</th>
<th>African American</th>
<th>Hispanic / Latino</th>
<th>Asian</th>
<th>Native America/Alaska Native</th>
<th>% over age 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>323,127,513</td>
<td>77.1%</td>
<td>13.3%</td>
<td>17.6%</td>
<td>5.6%</td>
<td>1.2%</td>
<td>14.9%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>10,146,788</td>
<td>71.2%</td>
<td>22.1%</td>
<td>9.1%</td>
<td>2.8%</td>
<td>1.6%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Moore</td>
<td>94,352</td>
<td>82.7%</td>
<td>12.9%</td>
<td>6.4%</td>
<td>1.3%</td>
<td>0.2%</td>
<td>24%</td>
</tr>
<tr>
<td>Hoke</td>
<td>52,671</td>
<td>50.6%</td>
<td>34.1%</td>
<td>12.4%</td>
<td>1.6%</td>
<td>9.3%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>27,548</td>
<td>77.1%</td>
<td>19.0%</td>
<td>15.5%</td>
<td>1.5%</td>
<td>0.1%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Richmond</td>
<td>45,437</td>
<td>62.1%</td>
<td>31.6%</td>
<td>6.4%</td>
<td>1.0%</td>
<td>0.1%</td>
<td>16.6%</td>
</tr>
</tbody>
</table>

Income and Education

<table>
<thead>
<tr>
<th></th>
<th>Median Household income</th>
<th>Percent Below Poverty</th>
<th>Percent Unemployment</th>
<th>Percent with HS diploma</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina</td>
<td>$46,868</td>
<td>16.4%</td>
<td>5.5%</td>
<td>85.8%</td>
</tr>
<tr>
<td>Moore</td>
<td>$50,998</td>
<td>13.2%</td>
<td>5.1%</td>
<td>89.2%</td>
</tr>
<tr>
<td>Hoke</td>
<td>$41,542</td>
<td>19.9%</td>
<td>7.5%</td>
<td>84.9%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>$32,500</td>
<td>19.9%</td>
<td>5.4%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Richmond</td>
<td>$32,687</td>
<td>28.7%</td>
<td>7.3%</td>
<td>80.6%</td>
</tr>
</tbody>
</table>

Sources:

Contributors to Limited Health Access

<table>
<thead>
<tr>
<th></th>
<th>Percent that speaks a language other than English at home</th>
<th>Percent Uninsured</th>
<th>Population enrolled in Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina</td>
<td>11.2%</td>
<td>13.1%</td>
<td>1,820,818</td>
</tr>
<tr>
<td>Moore</td>
<td>7.3%</td>
<td>15.0%</td>
<td>13,064</td>
</tr>
<tr>
<td>Hoke</td>
<td>11.6%</td>
<td>17.0%</td>
<td>6,418</td>
</tr>
<tr>
<td>Montgomery</td>
<td>15.5%</td>
<td>20.1%</td>
<td>11,882</td>
</tr>
<tr>
<td>Richmond</td>
<td>6.6%</td>
<td>17.7%</td>
<td>13,940</td>
</tr>
</tbody>
</table>

Sources:
2. NC Dept of Health and Human Services, Division of Medical Assistance, State Fiscal Year Reports, Oct. 2015

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, 2011 and 2015. 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 (PRC) 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 2015 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 for Moore County can be referenced in Attachment B of this document; other county charts are available upon request. The charts include trending from 2007, 2011 and 2015, 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 Moore County. The First-In-Health Moore County 2020 Task Force includes representatives from the school system, the health department, private businesses, the Chamber of Commerce, FirstHealth Moore Regional Hospital Board of Directors, school nurse, local towns, law enforcement, county planner, parks and recreation, 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 Moore County Health Department along with MooreHealth, Inc. (the former Healthy Carolinians Task Force). The 2020 task force and MooreHealth will assist and support the implementation of 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 2016, the 2020 Task Force and MooreHealth adopted four priority areas to include obesity, aging issues and drug prevention with an emphasis on prescription drugs, and due to high diabetes prevalence rates in Moore County (17.6 in 2011, 16.6 in 2015 versus state average of 9.8), the task force members determined diabetes prevention, detection and treatment needs to be a continued focus for the next three years. FirstHealth will focus specific outreach and detection efforts on pre-diabetes in an effort to impact the rate of diabetes prevalence.

**Moore County Health Department Community Health Assessment Collaborative Effort**

FirstHealth Moore Regional Hospital and the Moore County Health Department partnered to develop the health department county level community health assessment tool. The assessment tool (reference Attachment C) 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 October 2016. The survey results can be referenced in Attachment C. In addition to the survey, key informant interviews and focus groups will be hosted by the health department in Winter 2017 to further clarify community perceptions, and best practices for interventions and outreach. The health department, per state guidelines, will develop action plans for three key health issues, which include aging issues, substance abuse/tobacco prevention and obesity prevention. The hospital will work collaboratively with the health department to encourage partnership efforts and reduce duplication of efforts.

**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 Moore Regional Hospital. The following table represents the initial results from the 2016 survey:
Moore County Community Health Assessment (CHA) with Moore County Health Department, Oct 2016 (Perception Data)

<table>
<thead>
<tr>
<th>Five Health Problems Greatest Impact in Moore County</th>
<th>Five Unhealthy Behaviors with Greatest Impact on Community</th>
<th>Quality of Life Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging</td>
<td>Illegal and prescription drug abuse</td>
<td>Low income/poverty</td>
</tr>
<tr>
<td>Cancer</td>
<td>Alcohol abuse</td>
<td>Affordability of health services</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>Smoking and tobacco use</td>
<td>Lack of or inadequate health insurance</td>
</tr>
<tr>
<td>High Blood Pressure</td>
<td>Drunk driving/distracted driving</td>
<td>Unemployment</td>
</tr>
<tr>
<td>Obesity/Overweight</td>
<td>Sedentary lifestyle/Poor eating habits</td>
<td>Lack of recreational facilities</td>
</tr>
</tbody>
</table>

(Note: Diabetes identified in top 6 health issues)

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

Summary of PRC, Moore County CHA and Disparities Findings

<table>
<thead>
<tr>
<th>PRC Survey (2015) and First-In-Health 2020 Task Force</th>
<th>Health Problems Greatest Impact in Moore County</th>
<th>Health Disparities Identified from 2015 PRC Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s Disease/dementia</td>
<td>Aging</td>
<td>Highest rates in Moore County</td>
</tr>
<tr>
<td>Prescription Drug Abuse</td>
<td></td>
<td>Drug abuse in households with younger residents</td>
</tr>
<tr>
<td>Diseases of the lung (COPD/Lung Cancer)</td>
<td>Cancer</td>
<td>Minority, higher rates lung cancer in Hoke and Richmond counties</td>
</tr>
<tr>
<td>Hypertension/Cholesterol</td>
<td>Heart Disease/High Blood Pressure</td>
<td>Men, lower income, adults age 40+, and minority for heart disease</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Diabetes</td>
<td>Low income and minority individuals for diabetes</td>
</tr>
<tr>
<td>Obesity/Overweight</td>
<td>Obesity/Overweight</td>
<td>Ages 18 – 64, low income and minorities for obesity</td>
</tr>
</tbody>
</table>
The following chart indicates death rates from chronic conditions by county, per 100,000:

<table>
<thead>
<tr>
<th>County</th>
<th>Diabetes</th>
<th>Heart Disease</th>
<th>Chronic Lower Respiratory Disease (includes COPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Carolina</td>
<td>22.2</td>
<td>166.4</td>
<td>46.4</td>
</tr>
<tr>
<td>Moore</td>
<td>12</td>
<td>125.5</td>
<td>36.2</td>
</tr>
<tr>
<td>Hoke</td>
<td>25.4</td>
<td>218.5</td>
<td>48.8</td>
</tr>
<tr>
<td>Montgomery</td>
<td>31.8</td>
<td>154.6</td>
<td>56.6</td>
</tr>
<tr>
<td>Richmond</td>
<td>54.8</td>
<td>233.9</td>
<td>65.5</td>
</tr>
</tbody>
</table>

Source: CDC Online Query System. Center for Disease Control and Prevention, 2011-2013 Annual Average Deaths, Aug. 2015

In addition to evaluating the community needs assessment data, FirstHealth also analyzed inpatient admissions for chronic diseases and readmission rates. Based on FY15 data, 2,202 chronically ill patients (those with diabetes, heart failure, COPD or hypertension) were cared for at FirstHealth Moore Regional Hospital, Richmond Memorial and Hoke campus. Of these patients, 8.5 percent were readmitted within 30 days of discharge. The readmission rate was highest for the Medicare patients (10.3%) followed by Medicaid (7.3%) and then self-pay (7.6%). The establishment of Transition Care Clinics in each county has assisted with decreasing readmission rates significantly from 2012 to 2016.

FirstHealth recognizes out of the four county region, Moore County is the healthiest county; however, the prevalence of chronic disease is still persistent and above the state averages. FirstHealth Moore Regional Hospital will work in partnership with FirstHealth Richmond Memorial Hospital, FirstHealth Montgomery Memorial Hospital and FirstHealth Moore Regional – Hoke Campus to collaborate on implementation plan efforts and community outreach through the 2020 Task Force collaboratives and MooreHealth. Through this multifaceted approach of reviewing the PRC assessment data, the First-In-Health 2020 data, health disparities data and the Moore County Community Health Assessment data, FirstHealth Moore Regional Hospital has identified health focus areas for implementation plans. These include:

- **Chronic disease prevention to include diseases such as diabetes, obesity, cardiovascular disease, tobacco use (lung cancer) and prescription drug abuse/misuse**
  - Data demonstrate that Moore County has higher rates than the state averages for diabetes prevalence, hypertension 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 through policy and outreach efforts.
• **Access to care for uninsured**
  o There are high rates of uninsured in region. 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 programs.
  o Given the rural environment and transportation barriers for uninsured and underserved, the hospital will develop a comprehensive telehealth/telemedicine strategy to expand primary and specialty care services to underserved areas in the region.

• **Quality of care**
  o FirstHealth Moore Regional Hospital will develop an action plan focusing on quality care initiatives to include care transitions for chronically ill patients at high risk for a hospital readmission, home health quality initiatives for patient care management post-discharge and the clinically aligned network (CAN), HealthNC+.

In collaboration with key stakeholders and partners, and with input from the FirstHealth Moore Regional Hospital Board of Directors, MooreHealth and the Moore First-In-Health 2020 Task Force the hospital developed 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.

FirstHealth Moore Regional Hospital is not developing implementation plans around areas such as aging issues, as the Department of Aging is taking the lead on this indicator, 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. Additionally, the hospital will not develop an implementation plan focused on poverty. However, FirstHealth recognizes two of the four surrounding counties are designated Tier One counties by the state, which indicates a high level of poverty, but also provides opportunities for funding to support health initiatives with a focus on issues such as access to care and health disparities.

*The information contained in this report is current as of December 2016, 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 B: Moore County First-In-Health 2020 charts

Attachment C: Moore County Community Health Assessment Tool and Results
Attachment A

Professional Research Consultants
Community Health Needs Assessment
2015/2016
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- Age-Adjusted Kidney Disease Deaths
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- Interest in Case Management Services
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Local Resources
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- Satisfaction With the Quality of Local Healthcare
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- Hospitals & Federally Qualified Health Centers (FQHCs)
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Introduction
Project Overview

Project Goals
This Community Health Needs Assessment, a follow-up to similar studies conducted in 1999, 2003, 2007, and 2011, 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 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
This assessment incorporates data from primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data). It also allows for trending and comparison to benchmark data at the state and national levels.

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) is defined as each of the residential ZIP Codes primarily associated with Hoke, Montgomery, Moore, and Richmond counties in North Carolina. This community definition 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 a stratified random sample of 1,277 individuals age 18 and older in the Total Area, including an African-American “oversample” made up of 77 residents (in all, 272 African American respondents were represented in the sample). The distribution by county was as follows: 231 individuals in Hoke County; 199 in Montgomery County; 528 in Moore County; and 319 in Richmond 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).

For statistical purposes, the maximum rate of error associated with a sample size of 1,277 respondents is ±2.7% at the 95 percent level of confidence.

Expected Error Ranges for a Sample of 1,277 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.
A “95 percent level of confidence” indicates that responses would fall within the expected error range on 95 out of 100 trials.

Examples:
- If 10% of the sample of 1,277 respondents answered a certain question with a “yes,” it can be asserted that between 8.4% and 11.6% (10% ± 2.7%) of the total population would offer this response.
- If 50% of respondents said “yes,” one could be certain with a 95 percent level of confidence that between 47.3% and 52.7% (50% ± 2.7%) 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 chart outlines 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 2014 guidelines place the poverty threshold for a family of four at $23,850 annual household income or lower. In sample segmentation: “very low income” refers to community members living in a household with defined poverty status; “low income” refers to households with incomes just above the poverty level, earning up to twice the poverty threshold; and “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.

**PUBLIC HEALTH, VITAL STATISTICS & OTHER DATA**

A variety of existing (secondary) data sources was consulted to complement the research quality of this Community Health Needs Assessment. Data for the Total Area were obtained from the following sources (specific citations are included with the graphs throughout this report):

- Center for Applied Research and Environmental Systems (CARES)
- Centers for Disease Control & Prevention, Office of Infectious Disease, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
- Centers for Disease Control & Prevention, Office of Public Health Science Services, Center for Surveillance, Epidemiology and Laboratory Services, Division of Health Informatics and Surveillance (DHIS)
- Centers for Disease Control & Prevention, Office of Public Health Science Services, National Center for Health Statistics
- Community Commons
- ESRI ArcGIS Map Gallery
- National Cancer Institute, State Cancer Profiles
- OpenStreetMap (OSM)
- US Census Bureau, American Community Survey
- US Census Bureau, County Business Patterns
- US Census Bureau, Decennial Census
- US Department of Agriculture, Economic Research Service
- US Department of Health & Human Services
- US Department of Health & Human Services, Health Resources and Services Administration (HRSA)
- US Department of Justice, Federal Bureau of Investigation
- US Department of Labor, Bureau of Labor Statistics

Note that secondary data reflect county-level data.

**BENCHMARK DATA**

*Trending*

Similar surveys were administered in the Total Area in 1999, 2003, 2007, and 2011 by PRC on behalf of FirstHealth of the Carolinas (prior to 2011, the community definition included some ZIP Codes in the Pembroke area, which are no longer included). 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 2013 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 the US population with a high degree of confidence. National-level vital statistics are also provided for comparison of secondary data indicators.

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.

DETERMINING SIGNIFICANCE
Differences noted in this report represent those determined to be significant. For survey-derived indicators (which are subject to sampling error), statistical significance is determined based on confidence intervals (at the 95 percent confidence level) using question-specific samples and response rates. For secondary data indicators (which do not carry sampling error, but might be subject to reporting error), “significance,” for the purpose of this report, is determined by a 5% variation from the comparative measure.
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

Significant Health Needs of the Community

The following “areas of opportunity” represent the significant health needs of the community, 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 area with regard to the following health issues (see also the summary tables presented in the following section).

<table>
<thead>
<tr>
<th>Areas of Opportunity Identified Through This Assessment</th>
<th>Access to Healthcare Services</th>
<th>Cancer</th>
<th>Chronic Kidney Disease</th>
<th>Dementia, Including Alzheimer’s Disease</th>
<th>Diabetes</th>
<th>Heart Disease &amp; Stroke</th>
<th>HIV/AIDS</th>
<th>Injury &amp; Violence</th>
<th>Infant Health &amp; Family Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Healthcare Services</td>
<td>• Primary Care Physician Ratio</td>
<td>• Cancer Deaths</td>
<td>• Kidney Disease Deaths</td>
<td>• Alzheimer’s Disease Deaths</td>
<td>• Diabetes Deaths</td>
<td>• Heart Disease Deaths</td>
<td>• HIV/AIDS Deaths</td>
<td>• Unintentional Injury Deaths</td>
<td>• Teen Births</td>
</tr>
<tr>
<td></td>
<td>• Routine Medical Care (Adults)</td>
<td>• Including Lung Cancer Deaths</td>
<td>• Including Lung Cancer and Cervical Cancer Incidence.</td>
<td>• Cervical Cancer Screening</td>
<td>• Diabetes Prevalence</td>
<td>• Heart Disease Prevalence</td>
<td>• High Blood Pressure Prevalence</td>
<td>• Including Motor Vehicle Crash Deaths</td>
<td>• Low-Weight Births</td>
</tr>
<tr>
<td></td>
<td>• Access</td>
<td>• Cancer Incidence</td>
<td>• Skin Cancer Prevalence</td>
<td>• Cervical Cancer Screening</td>
<td>• Stroke Deaths</td>
<td>• Stroke Deaths</td>
<td>• High Blood Cholesterol Prevalence</td>
<td>• Firearm-Related Deaths</td>
<td>• Infant Mortality</td>
</tr>
<tr>
<td></td>
<td>• Treatment of Problem</td>
<td>• Lung Cancer Incidence</td>
<td>• Cancer (Non-Skin) Prevalence</td>
<td>• Colorectal Cancer Screening</td>
<td>• Heart Disease Prevalence</td>
<td>• Overall Cardiovascular Risk</td>
<td>• Overall Cardiovascular Risk</td>
<td>• Homicide Deaths</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Areas of Concern</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Mental Health</strong></td>
<td>• Suicide Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Access to Mental Health Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nutrition, Physical Activity &amp; Weight</strong></td>
<td>• Fruit/Vegetable Consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Whole Grain Consumption</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Overweight &amp; Obesity [Adults]</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Obesity [Children]</td>
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<td></td>
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<tr>
<td></td>
<td>• Leisure-Time Physical Activity</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Recreation/Fitness Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory Diseases</strong></td>
<td>• Chronic Lower Respiratory Disease (CLRD) Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sexually Transmitted Diseases</strong></td>
<td>• Gonorrhea Incidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chlamydia Incidence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Substance Abuse</strong></td>
<td>• Cirrhosis/Liver Disease Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Overall Alcohol Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Binge Drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Drug-Induced Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Illicit Drug Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Seeking Help for Alcohol/Drug Issues</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tobacco Use</strong></td>
<td>• Cigarette Smoking Prevalence</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vision</strong></td>
<td>• Eye Exam in Past Two Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
PRIORITIZATION OF HEALTH NEEDS

On January 1, 2015, approximately 50 internal stakeholders of FirstHealth of the Carolinas met to evaluate, discuss and prioritize health issues for the community, based on findings of the 2014 PRC Community Health Needs Assessment (CHNA). Professional Research Consultants, Inc. (PRC) began the meeting with a presentation of key findings from the CHNA, highlighting the significant health issues identified from the research (see Areas of Opportunity above).

Following the data review, PRC answered any questions and facilitated a group dialogue, allowing participants to advocate for any of the health issues discussed. A hospital representative also provided guidance to the group, describing existing activities, initiatives, resources, etc., relating to the Areas of Opportunity. Finally, participants were provided an overview of the prioritization exercise that followed.

In order to assign priority to the identified health needs (i.e., Areas of Opportunity), a wireless audience response system was used in which each participant was able to register his/her ratings using a small remote keypad. The participants were asked to evaluate each health issue along two criteria:

- **Scope & Severity** — The first rating was to gauge the magnitude of the problem in consideration of the following:
  - How many people are affected?
  - How does the local community data compare to state or national levels, or Healthy People 2020 targets?
  - To what degree does each health issue lead to death or disability, impair quality of life, or impact other health issues?

- **Ability to Impact** — A second rating was designed to measure the perceived likelihood of the hospital having a positive impact on each health issue, given available resources, competencies, spheres of influence, etc. Ratings were entered on a scale of 1 (no ability to impact) to 10 (great ability to impact).

Individuals’ ratings for each criteria were averaged for each tested health issue, and then these composite criteria scores were averaged to produce an overall score. This process yielded the following prioritized list of community health needs:

1. 
2. 
3.

*Note that this section will be updated once the hospital selects priorities to pursue in its Implementation Strategy.*
Plotting these overall scores in a matrix illustrates the intersection of the Scope & Severity and the Ability to Impact scores. Below, those issues placing in the upper right (shaded) quadrant represent health needs rated as most severe, with the greatest ability to impact.

Note that this section will be updated once the hospital selects priorities to pursue in its Implementation Strategy.
Summary Tables: Comparisons With Benchmark Data

The following tables provide an overview of indicators in the Total Area, including comparisons among the individual counties, 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, the 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 local data 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.
### Social Determinants

<table>
<thead>
<tr>
<th>Social Determinants</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>Linguistically Isolated Population (Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Population in Poverty (Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22.9</td>
<td>25.6</td>
</tr>
<tr>
<td>Population Below 200% FPL (Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>44.5</td>
<td>52.3</td>
</tr>
<tr>
<td>Children Below 200% FPL (Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54.1</td>
<td>67.7</td>
</tr>
<tr>
<td>No High School Diploma (Age 25+, Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.1</td>
<td>27.2</td>
</tr>
<tr>
<td>Unemployment Rate (Age 16+, Percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.1</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

TREND:
- ☀️ Better
- ☁️ Similar
- ☁️ Worse
### Community Health Needs Assessment

#### Each County vs. Others

<table>
<thead>
<tr>
<th>Overall Health</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% &quot;Fair/Poor&quot; Physical Health</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
</tr>
<tr>
<td></td>
<td>28.1</td>
<td>23.2</td>
<td>21.0</td>
<td>29.1</td>
</tr>
<tr>
<td>% 3+ Days of Poor Physical Health/Past Month</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☁</td>
</tr>
<tr>
<td></td>
<td>37.1</td>
<td>34.2</td>
<td>31.2</td>
<td>41.5</td>
</tr>
<tr>
<td>% Activity Limitations</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
</tr>
<tr>
<td></td>
<td>27.7</td>
<td>22.8</td>
<td>24.2</td>
<td>26.1</td>
</tr>
</tbody>
</table>

#### Total Area vs. Benchmarks

<table>
<thead>
<tr>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% &quot;Fair/Poor&quot; Physical Health</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>% 3+ Days of Poor Physical Health/Past Month</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>% Activity Limitations</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

**Notes:**
- In the green section, each county is compared against all other areas 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.
- Better: ☑, Similar: ☁, Worse: ☁

#### Access to Health Services

<table>
<thead>
<tr>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Age 18-64] Lack Health Insurance</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>% [65+] With Medicare Supplement Insurance</td>
<td>☁</td>
<td>☁</td>
<td>☑</td>
</tr>
<tr>
<td>% [Insured] Went Without Coverage in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☑</td>
</tr>
<tr>
<td>% Cost Prevented Getting Prescription in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☑</td>
</tr>
</tbody>
</table>

**Notes:**
- In the green section, each county is compared against all other areas 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.
- Better: ☑, Similar: ☁, Worse: ☁

---

Professional Research Consultants, Inc.
### Access to Health Services (continued)

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Care Doctors per 100,000</strong></td>
<td>🌡️</td>
<td>🌡️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>🌡️</td>
</tr>
<tr>
<td>% Perceive HC Coverage to be “Very Important”</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</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>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Ease of Obtaining Medical Care is “Fair/Poor”</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Difficulty Obtaining Routine Medical Care in Past Year</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Difficulty Getting Child’s Medical Appt in Past Year</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Perceive a Need for More Doctors in the Community</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Have Access to the Internet for Personal Use</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>% Have Smartphone</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
</tbody>
</table>

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TREND: ☀️ better, ☁️ similar, ☁️ worse
### Access to Health Services (continued)

<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>% Preventive Routine Medical Care is &quot;Very Important&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>85.6</td>
<td>78.2</td>
<td>85.3</td>
<td>90.4</td>
</tr>
<tr>
<td>% Have a Regular Source for Medical Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>88.8</td>
<td>92.2</td>
<td>94.1</td>
<td>81.9</td>
</tr>
<tr>
<td>% Able to Obtain an Appt When Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>82.7</td>
<td>91.6</td>
<td>92.8</td>
<td>85.1</td>
</tr>
<tr>
<td>% Treated w/Respect During Recent Routine Healthcare Visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>98.9</td>
<td>100.0</td>
<td>99.2</td>
<td>99.0</td>
</tr>
<tr>
<td>% Staff Understood Health Problems/Recent Routine Visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>93.7</td>
<td>97.6</td>
<td>96.2</td>
<td>93.7</td>
</tr>
<tr>
<td>% Most Recent Routine Healthcare Visit Was &quot;Fair/Poor&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14.4</td>
<td>2.4</td>
<td>6.2</td>
<td>4.7</td>
</tr>
<tr>
<td>% Problem Was Taken Care Of/Most Recent Visit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>86.8</td>
<td>94.1</td>
<td>89.3</td>
<td>88.5</td>
</tr>
<tr>
<td>% Would Use Case Management Svcs if Available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>80.4</td>
<td>78.8</td>
<td>74.9</td>
<td>82.2</td>
</tr>
<tr>
<td>% Member of HH Received Emergency Care/Past Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>45.9</td>
<td>36.1</td>
<td>44.4</td>
<td>47.2</td>
</tr>
<tr>
<td>% Unable to Obtain Emergency Svcs When Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6</td>
<td>5.7</td>
<td>2.0</td>
<td>6.6</td>
</tr>
</tbody>
</table>

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### Access to Health Services (continued)

<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>% “Very Satisfied” w/ Overall Quality of Healthcare</td>
<td>52.7</td>
<td>54.9</td>
<td>69.5</td>
<td>47.4</td>
</tr>
<tr>
<td>% Likely to Use Tele-health if Offered</td>
<td>54.4</td>
<td>52.0</td>
<td>52.7</td>
<td>58.7</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

### Cancer

<table>
<thead>
<tr>
<th>Cancer (Age-Adjusted Death Rate)</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung Cancer</td>
<td>188.4</td>
<td>151.7</td>
<td>163.1</td>
<td>197.5</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Breast Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Community Health Needs Assessment

### Cancer (continued)

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Total Area vs. NC</th>
<th>Total Area vs. US</th>
<th>Total Area vs. HP2020</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>vs. NC</td>
<td>vs. US</td>
<td>vs. HP2020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hoke County</td>
<td>Montgomery County</td>
<td>Moore County</td>
<td>Richmond County</td>
</tr>
<tr>
<td></td>
<td>vs. NC</td>
<td>vs. US</td>
<td>vs. HP2020</td>
<td></td>
</tr>
<tr>
<td></td>
<td>151.0</td>
<td>149.1</td>
<td>143.7</td>
<td></td>
</tr>
</tbody>
</table>

| Prostate Cancer Incidence per 100,000 | 163.3 | 147.8 | 147.5 | 155.0 |
| Female Breast Cancer Incidence per 100,000 | 97.8 | 106.3 | 139.5 | 119.6 |
| Lung Cancer Incidence per 100,000 | 97.2 | 77.8 | 68.7 | 88.5 |
| Colorectal Cancer Incidence per 100,000 | 37.9 | 46.6 | 34.9 | 44.6 |
| Cervical Cancer Incidence per 100,000 | 8.7 | 16.2 |       |       |
| % Skin Cancer | 3.5 | 9.9 | 12.3 | 8.1 |
| % Cancer (Other Than Skin) | 5.4 | 8.2 | 9.4 | 8.9 |
| % [Men 50+] Prostate Exam in Past 2 Years | 73.3 | 70.9 | 75.6 | 67.5 |
| % [Women 50-74] Mammogram in Past 2 Years | 87.4 | 87.6 | 80.8 | 80.1 |
| % [Women 21-65] Pap Smear in Past 3 Years | 90.4 | 69.3 | 80.0 | 82.8 |

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### Trend
- Better
- Similar
- Worse

---

Professional Research Consultants, Inc.
### Cancer (continued)

#### % [Age 50-75] Colorectal Cancer Screening

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>82.3</td>
<td>66.4</td>
<td>76.7</td>
<td>66.3</td>
</tr>
</tbody>
</table>

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### Chronic Kidney Disease

#### Kidney Disease (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>29.0</td>
<td>13.7</td>
<td>23.5</td>
<td></td>
</tr>
</tbody>
</table>

### Dementias, Including Alzheimer's Disease

#### Alzheimer's Disease (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>34.6</td>
<td>44.7</td>
<td>40.2</td>
<td>20.6</td>
</tr>
</tbody>
</table>
### Diabetes

<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><strong>Diabetes Mellitus (Age-Adjusted Death Rate)</strong></td>
<td>25.4</td>
<td>31.8</td>
<td>12.0</td>
<td>54.8</td>
</tr>
<tr>
<td><strong>% Diabetes/High Blood Sugar</strong></td>
<td>20.5</td>
<td>14.8</td>
<td>16.6</td>
<td>22.9</td>
</tr>
<tr>
<td><strong>% Borderline/Pre-Diabetes</strong></td>
<td>7.3</td>
<td>7.0</td>
<td>4.8</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>% [Diabetics] Taking Insulin/Medication</strong></td>
<td>60.8</td>
<td>74.7</td>
<td></td>
<td>87.9</td>
</tr>
<tr>
<td><strong>% Blood Sugar Tested in Past 3 Years</strong></td>
<td>89.0</td>
<td>84.7</td>
<td>93.1</td>
<td>91.0</td>
</tr>
<tr>
<td><strong>% [Diabetics] Taken Diabetes Management Course</strong></td>
<td>53.7</td>
<td>49.2</td>
<td>50.1</td>
<td></td>
</tr>
</tbody>
</table>

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### Family Planning

<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><strong>Teen Births per 1,000 (Age 15-19)</strong></td>
<td>57.2</td>
<td>59.1</td>
<td>40.1</td>
<td>75.9</td>
</tr>
</tbody>
</table>

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## Community Health Needs Assessment

### Heart Disease & Stroke

<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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diseases of the Heart (Age-Adjusted Death Rate)</strong></td>
<td>218.5</td>
<td>154.6</td>
<td>125.5</td>
<td>233.9</td>
</tr>
<tr>
<td><strong>Stroke (Age-Adjusted Death Rate)</strong></td>
<td>38.2</td>
<td>34.1</td>
<td>34.4</td>
<td>61.8</td>
</tr>
<tr>
<td><strong>% Heart Disease (Heart Attack, Angina, Coronary Disease)</strong></td>
<td>6.7</td>
<td>9.3</td>
<td>7.2</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>% Stroke</strong></td>
<td>3.9</td>
<td>4.1</td>
<td>4.6</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>% Blood Pressure Checked in Past 2 Years</strong></td>
<td>94.3</td>
<td>98.3</td>
<td>98.2</td>
<td>98.9</td>
</tr>
<tr>
<td><strong>% Told Have High Blood Pressure (Ever)</strong></td>
<td>44.6</td>
<td>45.5</td>
<td>44.8</td>
<td>50.2</td>
</tr>
<tr>
<td><strong>% [HBP] Taking Action to Control High Blood Pressure</strong></td>
<td>89.2</td>
<td>94.1</td>
<td>90.1</td>
<td>88.6</td>
</tr>
<tr>
<td><strong>% Cholesterol Checked in Past 5 Years</strong></td>
<td>90.8</td>
<td>89.6</td>
<td>92.6</td>
<td>91.6</td>
</tr>
<tr>
<td><strong>% Told Have High Cholesterol (Ever)</strong></td>
<td>41.4</td>
<td>37.3</td>
<td>38.5</td>
<td>38.4</td>
</tr>
<tr>
<td><strong>% [HBC] Taking Action to Control High Blood Cholesterol</strong></td>
<td>88.1</td>
<td>86.7</td>
<td>93.7</td>
<td>87.5</td>
</tr>
</tbody>
</table>

### Total Area vs. Benchmarks

<table>
<thead>
<tr>
<th>Total Area vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heart Disease &amp; Stroke</strong></td>
<td>vs. NC</td>
</tr>
<tr>
<td><strong>Diseases of the Heart (Age-Adjusted Death Rate)</strong></td>
<td>160.5</td>
</tr>
<tr>
<td><strong>Stroke (Age-Adjusted Death Rate)</strong></td>
<td>40.6</td>
</tr>
<tr>
<td><strong>% Heart Disease (Heart Attack, Angina, Coronary Disease)</strong></td>
<td>8.1</td>
</tr>
<tr>
<td><strong>% Stroke</strong></td>
<td>4.2</td>
</tr>
<tr>
<td><strong>% Blood Pressure Checked in Past 2 Years</strong></td>
<td>97.7</td>
</tr>
<tr>
<td><strong>% Told Have High Blood Pressure (Ever)</strong></td>
<td>46.2</td>
</tr>
<tr>
<td><strong>% [HBP] Taking Action to Control High Blood Pressure</strong></td>
<td>90.1</td>
</tr>
<tr>
<td><strong>% Cholesterol Checked in Past 5 Years</strong></td>
<td>91.6</td>
</tr>
<tr>
<td><strong>% Told Have High Cholesterol (Ever)</strong></td>
<td>38.8</td>
</tr>
<tr>
<td><strong>% [HBC] Taking Action to Control High Blood Cholesterol</strong></td>
<td>90.4</td>
</tr>
</tbody>
</table>

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### Note
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**Trend:**
- better
- similar
- worse
## Heart Disease & Stroke (continued)

### % 1+ Cardiovascular Risk Factor

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>89.4</td>
<td>85.8</td>
<td>87.4</td>
<td>96.4</td>
</tr>
</tbody>
</table>

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### HIV

#### HIV/AIDS (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.9</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### HIV Prevalence per 100,000

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>377.9</td>
<td>181.2</td>
<td>175.6</td>
<td>310.8</td>
</tr>
</tbody>
</table>

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## Immunization & Infectious Diseases

<table>
<thead>
<tr>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>% [Age 65+] Flu Vaccine in Past Year</strong></td>
<td><strong>Total Area</strong></td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>70.1</td>
<td>65.5</td>
</tr>
<tr>
<td><strong>% [Age 65+] Pneumonia Vaccine Ever</strong></td>
<td>79.9</td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>76.4</td>
<td>76.4</td>
</tr>
</tbody>
</table>

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## Injury & Violence Prevention

<table>
<thead>
<tr>
<th>Each County vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unintentional Injury (Age-Adjusted Death Rate)</strong></td>
<td><strong>Total Area</strong></td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>41.9</td>
<td>52.1</td>
</tr>
<tr>
<td><strong>Motor Vehicle Crashes (Age-Adjusted Death Rate)</strong></td>
<td>16.3</td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>19.3</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Firearm-Related Deaths (Age-Adjusted Death Rate)</strong></td>
<td>17.1</td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>18.6</td>
<td>17.2</td>
</tr>
<tr>
<td><strong>Homicide (Age-Adjusted Death Rate)</strong></td>
<td>9.3</td>
</tr>
<tr>
<td>Hoke County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>136.6</td>
<td>209.2</td>
</tr>
</tbody>
</table>

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## COMMUNITY HEALTH NEEDS ASSESSMENT

### Maternal, Infant & Child 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>Low Birthweight Births (Percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.1</td>
<td>8.4</td>
<td>8.0</td>
<td>10.3</td>
</tr>
<tr>
<td>Infant Death Rate</td>
<td>5.3</td>
<td>1.5</td>
<td>4.9</td>
<td>10.2</td>
</tr>
</tbody>
</table>

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### Mental Health & Mental Disorders

<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>% &quot;Fair/Poor&quot; Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.9</td>
<td>19.5</td>
<td>8.6</td>
<td>16.6</td>
</tr>
<tr>
<td>% Symptoms of Chronic Depression (2+ Years)</td>
<td>29.4</td>
<td>35.9</td>
<td>23.8</td>
<td>37.6</td>
</tr>
<tr>
<td>Suicide (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.6</td>
<td></td>
<td>14.8</td>
<td></td>
</tr>
<tr>
<td>% Have Ever Sought Help for Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25.3</td>
<td>37.0</td>
<td>22.3</td>
<td>26.3</td>
</tr>
<tr>
<td>% 3+ Days of Poor Mental Health/Past Month</td>
<td>24.8</td>
<td>25.8</td>
<td>18.7</td>
<td>33.0</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
### Mental Health & Mental Disorders (continued)

<table>
<thead>
<tr>
<th>Mental Health Indicator</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>% 3+ Days Worried, Tense or Anxious/Past Month</td>
<td>42.0</td>
<td>41.9</td>
</tr>
<tr>
<td>% [Those With Chronic Depression] Seeking Help</td>
<td>50.9</td>
<td>70.6</td>
</tr>
<tr>
<td>% HH Member Unable to Receive Needed Mental Health Svcs/Past Year</td>
<td>3.7</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

### Nutrition, Physical Activity & Weight

<table>
<thead>
<tr>
<th>Physical Activity Indicator</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>30.8</td>
<td>25.6</td>
</tr>
<tr>
<td>% Eat 3+ Servings of Vegetables per Day</td>
<td>16.4</td>
<td>15.6</td>
</tr>
<tr>
<td>% Eat 2+ Servings of Whole Grain Bread per Day</td>
<td>21.4</td>
<td>28.6</td>
</tr>
<tr>
<td>% &lt;4 Days/Week Eating Meals at Home</td>
<td>12.0</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
### Nutrition, Physical Activity & Weight (continued)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>TENDENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Consumed 1+ Sugar-Sweetened Beverage Yesterday</td>
<td>🌞 66.9</td>
<td>🌞 67.9</td>
<td>🌞 47.3</td>
<td>🌞 63.7</td>
<td>57.4 vs. NC 24.1 vs. US</td>
</tr>
<tr>
<td>Population With Low Food Access (Percent)</td>
<td>🌞 17.0</td>
<td>🌞 15.1</td>
<td>🌞 32.2</td>
<td>🌞 21.2</td>
<td>24.1 vs. HP2020</td>
</tr>
<tr>
<td>% Healthy Weight (BMI 18.5-24.9)</td>
<td>🌞 23.5</td>
<td>🌞 27.4</td>
<td>🌞 26.9</td>
<td>🌞 20.4</td>
<td>24.8 vs. US 35.1 TENDENCY</td>
</tr>
<tr>
<td>% Overweight (BMI 25+)</td>
<td>🌞 76.5</td>
<td>🌞 70.1</td>
<td>🌞 70.5</td>
<td>🌞 79.0</td>
<td>73.5 vs. US</td>
</tr>
<tr>
<td>% Obese (BMI 30+)</td>
<td>🌞 47.2</td>
<td>🌞 39.9</td>
<td>🌞 34.0</td>
<td>🌞 46.8</td>
<td>40.1 vs. US 24.7 TENDENCY</td>
</tr>
<tr>
<td>% [Overweights] Trying to Lose Weight Both Diet/Exercise</td>
<td>🌞 43.0</td>
<td>🌞 37.0</td>
<td>🌞 38.3</td>
<td>🌞 44.9</td>
<td>40.9 vs. US</td>
</tr>
<tr>
<td>% [Obese] Counseled About Weight Control</td>
<td>🌞 64.2</td>
<td>🌞 64.0</td>
<td>🌞 56.1</td>
<td>🌞 58.4</td>
<td>59.4 vs. US</td>
</tr>
<tr>
<td>% [Overweights] Counseled About Weight Control</td>
<td>🌞 50.8</td>
<td>🌞 48.9</td>
<td>🌞 39.3</td>
<td>🌞 42.6</td>
<td>43.3 vs. US 45.6 TENDENCY</td>
</tr>
<tr>
<td>% Children [Age 5-17] Overweight (85th Percentile)</td>
<td>🌞 16.4</td>
<td>🌞 36.5</td>
<td>🌞 64.5</td>
<td>39.6 vs. US</td>
<td></td>
</tr>
<tr>
<td>% Children [Age 5-17] Obese (95th Percentile)</td>
<td>🌞 7.5</td>
<td>🌞 22.0</td>
<td>🌞 39.1</td>
<td>24.1 vs. US 20.0 TENDENCY</td>
<td></td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
### Nutrition, Physical Activity & Weight (continued)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Others</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>% No Leisure-Time Physical Activity</td>
<td>💡 27.8</td>
<td>💡 25.7</td>
<td>💡 21.8</td>
<td>💡 36.3</td>
<td>26.9</td>
<td>26.6 20.7 32.6</td>
</tr>
<tr>
<td>% Park/Playground is Within Walking Distance of Home</td>
<td>🌲 33.7</td>
<td>🌲 31.0</td>
<td>🌲 32.7</td>
<td>🌲 36.0</td>
<td>33.4</td>
<td>🌲 32.5</td>
</tr>
<tr>
<td>% Can Purchase Healthy Foods Within Walking Distance of Home</td>
<td>🌞 27.4</td>
<td>🌲 20.7</td>
<td>🌞 18.3</td>
<td>🌞 22.5</td>
<td>21.2</td>
<td>🌞 20.9</td>
</tr>
<tr>
<td>Recreation/Fitness Facilities per 100,000</td>
<td>🌲 2.1</td>
<td>🌲 3.6</td>
<td>🌟 10.2</td>
<td>🌟 10.7</td>
<td>7.6</td>
<td>🌟 10.1 9.4</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

### Oral Health

| Indicator                                                        | Hoke County | Montgomery County | Moore County | Richmond County | Total Area vs. Others | Total Area vs. Benchmarks |
|                                                               | 🌲 64.1     | 🌲 58.4           | 🌞 68.5       | 🌟 51.4          | 62.4                  | 64.9 65.9 49.0           |

Note: In the green section, each county is compared against all other areas 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>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>CLRD (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumonia/Influenza (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% COPD (Lung Disease)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Adults Asthma (Ever Diagnosed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Cough up Mucus or Phlegm “Most/All” Days in a Typical Month</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Experience Shortness of Breath “Most/All” Days/Month</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% “Agree/Strongly Agree” that Shortness of Breath Reduced Physical Activity in Past Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Those Without COPD Diagnosis] 2+ COPD Risk Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Those Ever Diagnosed With Asthma] 10+ Years of Smoking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% [Those Ever Diagnosed With COPD] 10+ Years of Smoking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Sexually Transmitted Diseases

<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>Gonorrhea Incidence per 100,000</td>
<td>235.4</td>
<td>50.6</td>
<td>52.6</td>
<td>145.9</td>
</tr>
<tr>
<td>Chlamydia Incidence per 100,000</td>
<td>562.2</td>
<td>325.3</td>
<td>301.1</td>
<td>459.1</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

### Substance Abuse

<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>Cirrhosis/Liver Disease (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Current Drinker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Binge Drinker (Single Occasion - 5+ Drinks Men, 4+ Women)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Heavy Drinkers (2+ Daily Drinks for Men/1+ Daily Drink for Women)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Excessive Drinkers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
### Substance Abuse (continued)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>Total Area vs. Benchmarks</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Advised to Reduce Alcohol Consumption/Past Yr</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>3.1</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 1.2</td>
</tr>
<tr>
<td>Drug-Induced Deaths (Age-Adjusted Death Rate)</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>☀</td>
<td>14.9</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 15.4</td>
</tr>
<tr>
<td>% Ever Sought Help for Alcohol or Drug Problem</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>3.2</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 3.5</td>
</tr>
<tr>
<td>% Prescription Drug Abuse by Member of HH/Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>2.8</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 3.4</td>
</tr>
<tr>
<td>% Illegal Drug Use by Member of HH/Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>4.6</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 3.0</td>
</tr>
</tbody>
</table>

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### Tobacco Use

<table>
<thead>
<tr>
<th>Tobacco</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>Total Area vs. Benchmarks</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Current Smoker</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>☀</td>
<td>21.6</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 27.0</td>
</tr>
<tr>
<td>% [Smokers] Have Quit Smoking 1+ Days in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☀</td>
<td>☀</td>
<td>51.3</td>
<td>vs. NC ☁ vs. US ☁ vs. HP2020 ☀</td>
<td>☀ 53.7</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
## COMMUNITY HEALTH NEEDS ASSESSMENT

### Vision

<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>% Eye Exam in Past 2 Years</td>
<td>63.1</td>
<td>61.5</td>
<td>67.9</td>
<td>60.4</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.

### 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>26.2</td>
<td>14.3</td>
<td>6.7</td>
<td>26.2</td>
</tr>
<tr>
<td>% Feel Able to Affect Quality of Community Life</td>
<td>72.5</td>
<td>83.1</td>
<td>78.7</td>
<td>73.1</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all other areas 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.
Community Description
Population Characteristics

Total Population

The Total Area, the focus of this Community Health Needs Assessment, encompasses 2,053.62 square miles and houses a total population of 212,508 residents, according to latest census estimates.

### Total Population
(Estimated Population, 2009-2013)

<table>
<thead>
<tr>
<th></th>
<th>Total Population</th>
<th>Total Land Area (Square Miles)</th>
<th>Population Density (Per Square Mile)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>48,842</td>
<td>390.64</td>
<td>125.03</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>27,707</td>
<td>491.63</td>
<td>56.36</td>
</tr>
<tr>
<td>Moore County</td>
<td>89,425</td>
<td>697.66</td>
<td>128.18</td>
</tr>
<tr>
<td>Richmond County</td>
<td>46,534</td>
<td>473.70</td>
<td>98.24</td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td><strong>212,508</strong></td>
<td><strong>2,053.62</strong></td>
<td><strong>103.48</strong></td>
</tr>
<tr>
<td>North Carolina</td>
<td>9,651,380</td>
<td>48,605.14</td>
<td>198.57</td>
</tr>
<tr>
<td>United States</td>
<td>311,536,591</td>
<td>3,530,997.6</td>
<td>88.23</td>
</tr>
</tbody>
</table>

Sources:

### POPULATION CHANGE 2000-2010

A significant positive or negative shift in total population over time impacts healthcare providers and the utilization of community resources.

Between the 2000 and 2010 US Censuses, the population of the Total Area increased by 27,843 persons, or 15.3%.

- A smaller proportional increase than seen across the state.
- A greater proportional increase than seen nationwide.
- Note, however, the larger population increase reported for Hoke County (39.6%).
Change in Total Population
(Percentage Change Between 2000 and 2010)

While much of the area has experienced an increase in population, note the large section in Richmond County where the population decreased between 2000 and 2010.
Urban/Rural Population

Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.

The Total Area is a little over half rural, with 51.3% of the population living in areas designated as not urban.

- Note that 66.1% of the state population lives in urban areas, whereas 80.9% of the national population lives in urban areas.
- By county, Montgomery shows a greater percentage of residents living in rural areas (76.8%), whereas Hoke and Richmond are mainly urban.

Urban and Rural Population
(2010)

![Urban and Rural Population Chart]

Sources: US Census Bureau Decennial Census (2010).

Notes: This indicator reports the percentage of population living in urban and rural areas. Urban areas are identified using population density, count, and size thresholds. Urban areas also include territory with a high degree of impervious surface (development). Rural areas are all areas that are not urban.
• Note the following map outlining the urban population in the Total Area census tracts as of 2010.

**Urban Population, Percent by Tract, US Census 2010**

---

**Age**

It is important to understand the age distribution of the population as different age groups have unique health needs which should be considered separately from others along the age spectrum.

*In the Total Area, 24.3% of the population are infants, children or adolescents (age 0-17); another 59.0% are age 18 to 64, while 16.7% are age 65 and older.*

- The percentage of older adults (65+) is higher than found statewide.
- The percentage of older adults (65+) is higher than the US figure.
- By county, Moore County has the largest proportion of seniors.
Total Population by Age Groups, Percent
(2009-2013)

<table>
<thead>
<tr>
<th></th>
<th>Age 0-17</th>
<th>Age 18-64</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>31.0</td>
<td>40.0</td>
<td>29.7</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>38.1</td>
<td>45.1</td>
<td>24.0</td>
</tr>
<tr>
<td>Moore County</td>
<td>38.0</td>
<td>39.0</td>
<td>21.5</td>
</tr>
<tr>
<td>Richmond County</td>
<td>39.0</td>
<td>39.0</td>
<td>21.1</td>
</tr>
<tr>
<td>Total Area</td>
<td>37.6</td>
<td>37.3</td>
<td>23.7</td>
</tr>
<tr>
<td>NC</td>
<td>37.6</td>
<td>37.3</td>
<td>23.7</td>
</tr>
<tr>
<td>US</td>
<td>37.3</td>
<td>37.3</td>
<td>23.7</td>
</tr>
</tbody>
</table>

**Sources:**

**MEDIAN AGE**

All of the counties in the Total Area, except for Hoke County, have median ages greater than that of the state and the nation.

**Median Age**
(2009-2013)

<table>
<thead>
<tr>
<th></th>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>31.0</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>40.0</td>
</tr>
<tr>
<td>Moore County</td>
<td>38.0</td>
</tr>
<tr>
<td>Richmond County</td>
<td>39.0</td>
</tr>
<tr>
<td>Total Area</td>
<td>37.6</td>
</tr>
<tr>
<td>NC</td>
<td>37.6</td>
</tr>
<tr>
<td>US</td>
<td>37.3</td>
</tr>
</tbody>
</table>

**Sources:**

**Note:**
- No median age data for Total Area.
• The following map provides an illustration of the median age in the Total Area, segmented by census tract.

**Median Age, by Tract, ACS 2009-2013**

**Race & Ethnicity**

**RACE**

In looking at race independent of ethnicity (Hispanic or Latino origin), 69.2% of residents of the Total Area are White and 22.2% are Black.

• This is generally similar to the state racial distribution.
• Nationally, the US population is more White, less Black, and more “other” race.
• By county, Hoke is the most racially diverse.
ETHNICITY

A total of 8.6% of Total Area residents are Hispanic or Latino.

- Identical to what is found statewide.
- Lower than found nationally.
- By county, Montgomery houses the highest proportion of Hispanic residents.

Percent Population Hispanic or Latino
(2009-2013)
The Hispanic population appears to be most concentrated along the border between Montgomery and Richmond counties.

Population Hispanic or Latino, Percent by Tract, ACS 2009-2013

Between 2000 and 2010, the Hispanic population in the Total Area increased by 8,239, or 86.6%.

- Lower (in terms of percentage growth) than found statewide.
- Higher (in terms of percentage growth) than found nationally.
- By county, Hoke showed the highest percentage increase in Hispanic population.

Hispanic Population Change
(Percentage Change in Hispanic Population Between 2000 and 2010)

Sources:
- US Census Bureau Decennial Census (2000-2010)
Linguistic Isolation

A total of 3.4% of the Total Area population age 5 and older live in a home in which no persons age 14 or older is proficient in English (speaking only English, or speaking English “very well”).

- Higher than found statewide.
- Lower than found nationally.
- By county, the percentage in Montgomery County is over twice that found in the other counties.

Linguistically Isolated Population
(2009-2013)

Sources: US Census Bureau American Community Survey 5-year estimates (2009-2013).

Notes:
- This indicator reports the percentage of the population aged 5 and older who live in a home in which no person 14 years old and over speaks only English, or in which no person 14 years old and over speaks a non-English language and speak English “very well.”
Note the following map illustrating linguistic isolation in the Total Area.

Population in Linguistically Isolated Households, Percent by Tract, ACS 2009-2013
Social Determinants of Health

About Social Determinants
Health starts in our homes, schools, workplaces, neighborhoods, and communities. We know that taking care of ourselves by eating well and staying active, not smoking, getting the recommended immunizations and screening tests, and seeing a doctor when we are sick all influence our health. Our health is also determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. The conditions in which we live explain in part why some Americans are healthier than others and why Americans more generally are not as healthy as they could be.

- Healthy People 2020 (www.healthypeople.gov)

Poverty
The latest census estimate shows 20.8% of the Total Area population living below the federal poverty level.

In all, 42.8% of Total Area residents (an estimated 89,101 individuals) live below 200% of the federal poverty level.

- Higher than the proportion reported statewide.
- Higher than found nationally.
- By county, Richmond and Montgomery report the highest prevalence of residents living in poverty.

Population in Poverty
(Populations Living Below 100% and Below 200% of the Poverty Level; 2009-2013)


Notes: Poverty is considered a key driver of health status. This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.
The following maps illustrate the poverty distribution in the Total Area, segmented by census tracts.

Population Below the Poverty Level, Percent by Tract, ACS 2009-2013

Population Below 200% of Poverty, Percent by Tract, ACS 2009-2013
CHILDREN IN LOW-INCOME HOUSEHOLDS

Additionally, 55.3% of Total Area children age 0-17 (representing an estimated 28,241 children) live below the 200% poverty threshold.

- Above the proportion found statewide.
- Above the proportion found nationally.
- Unfavorably high in Montgomery and Richmond counties.

**Percent of Children in Low-Income Households**

(Children 0-17 Living Below 200% of the Poverty Level, 2009-2013)


Notes: This indicator reports the percentage of children aged 0-17 living in households with income below 200% of the Federal Poverty Level (FPL). This indicator is relevant because poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status.

- Note the various concentrations of children in lower-income households across the service area.
Education
Among the Total Area population age 25 and older, an estimated 15.9% (over 22,880 people) do not have a high school education.

- Less favorable than found statewide.
- Less favorable than found nationally.
- Higher in Montgomery and Richmond counties.

Population With No High School Diploma
(Population Age 25+ Without a High School Diploma or Equivalent, 2009-2013)

Sources:

Notes:
- This indicator is relevant because educational attainment is linked to positive health outcomes.
• Geographically, this indicator is more concentrated in the southern portion of Montgomery County where more than 21.0% of the population (age 25+) are without a high school diploma.

Population With No High School Diploma, Percent by Tract, ACS 2009-2013

Employment

According to data derived from the US Department of Labor, the unemployment rate in the Total Area at the end of December 2014 was 5.4%.

• Less favorable than the statewide unemployment rate.
• Identical to the national unemployment rate.
• TREND: Unemployment for the Total Area peaked in 2010 and has since trended downward, echoing the state and national trends. The unemployment rate is now statistically lower than what it was ten years ago.
Unemployment Rate
(Percent of Non-Institutionalized Population Age 16+ Unemployed, Not Seasonally-Adjusted)


Notes: This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.
Community Perceptions
Community as a Place to Live

A total of 57.9% of Total Area adults rate their community as an “excellent” or “very good” place in which to live.

- Another 26.3% gave “good” ratings of their community as a place to live.

However, 15.7% 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 Hoke and Richmond counties.
- TREND: Denotes a statistically significant decrease over the past twelve years.

Perceive the Community to be a “Fair” or “Poor” Place to Live
Adults more likely to report that the community is a “fair” or “poor” place in which to live include:

- Younger residents (note the negative correlation with age).
- Residents living at lower incomes (note the negative correlation with income)
- Non-Hispanic Black residents.
- 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, 2015)

Charts throughout this report (such as that here) detail survey findings among key demographic groups – namely by gender, age groupings, income (based on poverty status), and race/ethnicity.

**Sources:**
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 6)

**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. “Very Low Income” includes households living below the federal poverty level. “Low Income” includes households living just above poverty, with incomes up to 199% 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 (76.9%) of Total Area adults feel that they, as individuals, are able to affect the quality of life in their own community.

- Most favorable in Montgomery County.
- TREND: No statistically significant change has occurred when comparing ability to affect community life reports to previous survey results.

Feel Able to Affect the Quality of Community Life

Women are more likely to feel able to affect community life.

Feel Able to Affect the Quality of Community Life (Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [item 7]
Notes: 
- 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. “Very Low Income” includes households living below the federal poverty level; “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.
General Health Status
Overall Health Status

Self-Reported Health Status

A total of 43.5% of Total Area adults rate their overall health as “excellent” or “very good.”

- Another 32.0% gave “good” ratings of their overall health.

However, 24.5% of Total Area adults believe that their overall health is “fair” or “poor.”

- Worse than statewide findings.
- Worse than the national percentage.
- Most favorable in Moore County, but least favorable in Richmond County.
- TREND: No statistically significant change has occurred when comparing “fair/poor” overall health reports to previous survey results.

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 9]

Notes:
- Asked of all respondents.
Adults more likely to report experiencing “fair” or “poor” overall health include:

- Residents living at lower incomes (note the negative correlation with income).
- Blacks.

Experience “Fair” or “Poor” Overall Health
(Total Area, 2015)
DAYS OF POOR PHYSICAL HEALTH

A total of 35.1% of Total Area adults report three or more days of poor physical health in the past month.

- More favorable in Moore County, but less favorable in Richmond County.

Those more likely to report more days of poor physical health include:

- Adults age 40 or older.
- Lower income residents (note the negative correlation with income).
- Blacks.
Activity Limitations

**About Disability & Health**

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 health care 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 health care 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 health care professionals.

**Healthy People 2020** (www.healthypeople.gov)

A total of 25.1% of Total Area adults are limited in some way in some activities due to a physical, mental or emotional problem.

- Higher than the prevalence statewide.
- Higher than the national prevalence.
- Statistically comparable by county.
- **TREND:** Marks a statistically significant increase in activity limitations since 1999.
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.
- Adults with lower incomes are more likely to report activity limitations (note the negative correlation with income).

Limited in Activities in Some Way
Due to a Physical, Mental or Emotional Problem
(Total Area, 2015)

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 135]
- Asked of all respondents.

Notes:
- 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. “Very Low Income” includes households living below the federal poverty level; “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, arthritis/rheumatism, difficulty walking, or fractures or bone/joint injuries.

Other issues mentioned with less frequency included lung/breathing problems, heart conditions, and diabetes.

The extent of limitation can be measured by the number of days in which poor physical or mental health has hindered usual activities.

- Poor physical or mental health has inhibited 22.9% of Total Area adults in performing their usual activities for at least one day.
Mental Health

About 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.

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 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 in 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, 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

A total of 62.8% of Total Area adults rate their overall mental health as “excellent” or “very good.”

- Another 24.4% gave “good” ratings of their own mental health status.

Self-Reported Mental Health Status
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]
Notes: Asked of all respondents.

A total of 12.8% of Total Area adults, however, believe that their overall mental health is “fair” or “poor.”

- Similar to the “fair/poor” response reported nationally.
- Lowest in Moore County; highest in Montgomery and Richmond counties.

Experience “Fair” or “Poor” Mental Health

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]
2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: Asked of all respondents.
• Note the **negative** correlation between poor mental health and income.
• Women and Blacks are **more likely** to report experiencing “fair/poor” mental health than their demographic counterparts.

**Experience “Fair” or “Poor” Mental Health**
(*Total Area, 2015*)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Income</td>
<td>10.0%</td>
<td>15.3%</td>
<td>15.5%</td>
<td>12.2%</td>
<td>10.2%</td>
<td>24.5%</td>
<td>20.7%</td>
<td>5.7%</td>
<td>11.5%</td>
<td>19.4%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Low Income</td>
<td>18.8%</td>
<td>23.4%</td>
<td>23.7%</td>
<td>21.0%</td>
<td>19.8%</td>
<td>22.9%</td>
<td>22.0%</td>
<td>7.5%</td>
<td>19.4%</td>
<td>23.1%</td>
<td>22.0%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>30.3%</td>
<td>33.9%</td>
<td>34.3%</td>
<td>32.9%</td>
<td>32.3%</td>
<td>31.6%</td>
<td>31.0%</td>
<td>7.7%</td>
<td>19.7%</td>
<td>22.0%</td>
<td>21.7%</td>
</tr>
<tr>
<td>White</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
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<td>Black</td>
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<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Total Area</td>
<td>10.0%</td>
<td>15.3%</td>
<td>15.5%</td>
<td>12.2%</td>
<td>10.2%</td>
<td>24.5%</td>
<td>20.7%</td>
<td>5.7%</td>
<td>11.5%</td>
<td>19.4%</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]

Notes:
- Ascribed 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. “Very Low Income” includes households living below the federal poverty level; “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.

**DAYS OF POOR MENTAL HEALTH**

A total of 24.1% of Total Area adults report having three or more days of poor mental health in the past month.

• Lowest in Moore County; highest in Richmond County.
• TREND: After remaining at favorably lower rates for four years, days of poor mental health has since increased to be statistically similar to that found in 2003.
Adults under age 65 and those with lower incomes are more likely to report experiencing 3+ days of poor mental health per month (note the negative correlations with age and income).

**Experienced Three or More Days of Poor Mental Health in the Past Month**

**Chronic Depression**

A total of 29.7% 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).
- Similar to national findings.
- Highest in Richmond County; lowest in Moore County.
- TREND: Similar to that reported in the Total Area in 1999.

### Have Experienced Symptoms of Chronic Depression

#### Total Area (2015)

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>29.7%</td>
</tr>
<tr>
<td>Very Low Income</td>
<td>51.7%</td>
</tr>
<tr>
<td>Low Income</td>
<td>41.2%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>18.6%</td>
</tr>
<tr>
<td>White</td>
<td>27.1%</td>
</tr>
<tr>
<td>Black</td>
<td>37.4%</td>
</tr>
<tr>
<td>Total Area</td>
<td>29.7%</td>
</tr>
</tbody>
</table>

#### Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 130)

#### Notes:
- Asked of all respondents.
- Chronic depression includes periods of two or more years during which the respondent felt depressed or sad on most days, even if (s)he felt okay sometimes.
- Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. “Very Low Income” includes households living below the federal poverty level. “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.

### Note on Prevalence:

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

- Adults under age 65 (note the negative correlation with age).
- Adults with lower incomes (note the negative correlation with income).
- Blacks.
Stress
A total of 42.0% of Total Area adults report having three or more days of feeling worried, tense or anxious during the past month.

- Lowest in Moore County; highest in Richmond County.
- TREND: Statistically similar to the 2003 findings.

Felt Worried, Tense or Anxious for Three or More 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 (note the negative correlations with age and income).

Felt Worried, Tense or Anxious for Three or More Days in the Past Month
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 220]
Notes:  
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

RELATED ISSUE:
See also Substance Abuse in the Modifiable Health Risks section of this report.
Suicide
Between 2011 and 2013, there was an annual average age-adjusted suicide rate of 14.7 deaths per 100,000 population in the Total Area.

- Higher than the statewide rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target of 10.2 or lower.
- Higher in Moore County when compared with Richmond County (note that county-level data for Hoke and Montgomery counties were not available).

**Suicide: Age-Adjusted Mortality**
*(20011-2013 Annual Average Deaths per 100,000 Population)*

Healthy People 2020 Target = 10.2 or Lower

<table>
<thead>
<tr>
<th></th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate</td>
<td>16.6</td>
<td>14.8</td>
<td>14.7</td>
<td>12.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The area suicide rate has overall trended upward and has been consistently higher than the state and national rates over the past decade.
Suicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 10.2 or Lower

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes: Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

Mental Health Treatment

A total of 25.7% of Total Area adults report that they have sought professional help for a mental or emotional problem at some point in their lives.

- Statistically similar to national findings.
- Much higher in Montgomery County; lowest in Moore County.
- TREND: Marks a steady, statistically significant increase in people seeking mental health services since 1999.

Have Sought Professional Help for a Mental or Emotional Problem

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 132]
2013 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).
• These segments are less likely to have sought help: men; adults age 65 and older; adults with higher incomes; Blacks.

Have Sought Professional Help for a Mental or Emotional Problem
(Total Area, 2015)

Among adults reporting symptoms of chronic depression, 53.9% acknowledge that they have sought professional help for a mental or emotional problem.

• Similar to national findings.
• Much higher in Montgomery County.
• TREND: There has been a marked, statistically significant increase in mental/emotional help seeking by adults with chronic depression over the last sixteen years.
## Have Sought Professional Help for a Mental or Emotional Problem (Among Those With Chronic Depression)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>30.1%</td>
<td>50.9%</td>
<td>70.8%</td>
<td>52.8%</td>
<td>48.1%</td>
<td>53.9%</td>
</tr>
<tr>
<td>2003</td>
<td>38.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>40.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>47.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>53.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 132)
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

### Notes:
- Asked of 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 4.8% 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.

- Statistically similar by county.
- TREND: Over the past four years, being unable to receive mental health services when needed has shown a statistically significant increase.
- Among adults with symptoms of chronic depression, the prevalence is 12.7%.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3.0%</td>
<td>3.7%</td>
<td>4.9%</td>
<td>4.9%</td>
<td>5.4%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2015</td>
<td>4.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 133)

### Notes:
- Asked of all respondents.

Among those reporting difficulty, most described problems related to lack of insurance coverage or cost.
Death, Disease & Chronic Conditions
Leading Causes of Death

Distribution of Deaths by Cause

Together, cardiovascular disease (heart disease and stroke) and cancers accounted for nearly one-half of all deaths in the Total Area in 2013.

Age-Adjusted Death Rates for Selected Causes

In order to compare mortality in the region with other localities (in this case, North Carolina and the United States), it is necessary to look at rates of death — these are figures which represent the number of deaths in relation to the population size (such as deaths per 100,000 population, as is used here).

Furthermore, in order to compare localities without undue bias toward younger or older populations, the common convention is to adjust the data to some common baseline age distribution. Use of these “age-adjusted” rates provides the most valuable means of gauging mortality against benchmark data, as well as Healthy People 2020 targets.

The following chart outlines 2011-2013 annual average age-adjusted death rates per 100,000 population for selected causes of death in the Total Area.

Note that age-adjusted mortality rates in the Total Area are worse than national rates for all selected causes except heart disease and pneumonia/influenza.

Of the causes outlined in the following chart for which Healthy People 2020 objectives have been established, the Total Area rates fail to satisfy the related goals for all of them, excluding heart disease in which the Total Area displays a rate that is statistically comparable to the Healthy People 2020 objective.
### Age-Adjusted Death Rates for Selected Causes
(2011-2013 Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th>Cause</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
<th>HP2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant Neoplasms (Cancers)</td>
<td>171.3</td>
<td>170.9</td>
<td>166.2</td>
<td>160.6</td>
</tr>
<tr>
<td>Diseases of the Heart</td>
<td>160.5</td>
<td>166.4</td>
<td>171.3</td>
<td>156.9*</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease (CLRD)</td>
<td>46.6</td>
<td>46.4</td>
<td>42.0</td>
<td>n/a</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>42.4</td>
<td>43.2</td>
<td>39.2</td>
<td>36.0</td>
</tr>
<tr>
<td>Cerebrovascular Disease (Stroke)</td>
<td>40.6</td>
<td>42.8</td>
<td>37.0</td>
<td>33.8</td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>37.0</td>
<td>28.5</td>
<td>24.0</td>
<td>n/a</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>24.7</td>
<td>22.2</td>
<td>21.3</td>
<td>20.5*</td>
</tr>
<tr>
<td>Firearm-Related</td>
<td>17.1</td>
<td>11.9</td>
<td>10.4</td>
<td>9.3</td>
</tr>
<tr>
<td>Kidney Diseases</td>
<td>17.0</td>
<td>16.5</td>
<td>13.2</td>
<td>n/a</td>
</tr>
<tr>
<td>Motor Vehicle Deaths</td>
<td>16.3</td>
<td>12.9</td>
<td>10.7</td>
<td>12.4</td>
</tr>
<tr>
<td>Pneumonia/Influenza</td>
<td>15.1</td>
<td>17.7</td>
<td>15.3</td>
<td>n/a</td>
</tr>
<tr>
<td>Drug-Induced</td>
<td>14.9</td>
<td>13.5</td>
<td>14.1</td>
<td>11.3</td>
</tr>
<tr>
<td>Intentional Self-Harm (Suicide)</td>
<td>14.7</td>
<td>12.5</td>
<td>12.5</td>
<td>10.2</td>
</tr>
<tr>
<td>Cirrhosis/Liver Disease</td>
<td>11.8</td>
<td>9.9</td>
<td>9.9</td>
<td>8.2</td>
</tr>
<tr>
<td>Homicide/Legal Intervention</td>
<td>9.3</td>
<td>5.8</td>
<td>5.3</td>
<td>5.5</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>3.9</td>
<td>3.6</td>
<td>3.2</td>
<td>3.3</td>
</tr>
</tbody>
</table>

**Sources:**

**Note:**
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population and coded using ICD-10 codes.
- *The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart; the Diabetes target is adjusted to reflect only diabetes mellitus-coded deaths.
# Cardiovascular Disease

## About Heart Disease & Stroke

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
- Access to safe and walkable communities
- Availability of community support and resources
- Access to affordable, quality healthcare

- Healthy People 2020 (www.healthypeople.gov)

## Age-Adjusted Heart Disease & Stroke Deaths

**HEART DISEASE DEATHS**

Between 2011 and 2013 there was an annual average age-adjusted heart disease mortality rate of 160.5 deaths per 100,000 population in the Total Area.

- Statistically similar to the statewide rate.
- Lower than the national rate.
- Is statistically similar to the Healthy People 2020 target of 156.9 or lower (as adjusted to account for all diseases of the heart).
- Higher in both Hoke and Richmond counties.
Heart Disease: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 156.9 or Lower (Adjusted)

Hoke County 218.5
Montgomery County 154.6
Moore County 125.5
Richmond County 233.9
Total Area 160.5
NC 166.4
US 171.3

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.

TREND: The heart disease mortality rate has decreased in the Total Area, echoing the decreasing trends across North Carolina and the US overall.

Heart Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 156.9 or Lower (Adjusted)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2006</td>
<td>215.8</td>
<td>208.1</td>
<td>214.6</td>
</tr>
<tr>
<td>2005-2007</td>
<td>199.9</td>
<td>200.7</td>
<td>206.1</td>
</tr>
<tr>
<td>2006-2008</td>
<td>188.9</td>
<td>192.3</td>
<td>197.9</td>
</tr>
<tr>
<td>2007-2009</td>
<td>180.8</td>
<td>186.4</td>
<td>190.3</td>
</tr>
<tr>
<td>2008-2010</td>
<td>174.3</td>
<td>180.3</td>
<td>184.7</td>
</tr>
<tr>
<td>2009-2011</td>
<td>168.5</td>
<td>174.2</td>
<td>178.5</td>
</tr>
<tr>
<td>2010-2012</td>
<td>162.3</td>
<td>169.6</td>
<td>174.4</td>
</tr>
<tr>
<td>2011-2013</td>
<td>160.5</td>
<td>166.4</td>
<td>171.3</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 Heart Disease target is adjusted to account for all diseases of the heart.
STROKE DEATHS

Between 2011 and 2013, there was an annual average age-adjusted stroke mortality rate of 40.6 deaths per 100,000 population in the Total Area.

- More favorable than the North Carolina rate.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target of 34.8 or lower.
- Much higher in Richmond County.

Stroke: Age-Adjusted Mortality
(20011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 34.8 or Lower

TREND: The stroke rate has **declined** in recent years, echoing the trends reported across North Carolina and the US overall.

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted July 2015.

Notes: Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
Stroke: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 34.8 or Lower

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>59.4</td>
<td>56.4</td>
<td>53.1</td>
<td>49.2</td>
<td>46.1</td>
<td>42.4</td>
<td>41.3</td>
<td>40.6</td>
</tr>
<tr>
<td>NC</td>
<td>58.0</td>
<td>54.4</td>
<td>51.7</td>
<td>49.7</td>
<td>47.6</td>
<td>45.0</td>
<td>43.6</td>
<td>42.8</td>
</tr>
<tr>
<td>US</td>
<td>46.0</td>
<td>45.4</td>
<td>43.5</td>
<td>41.7</td>
<td>40.3</td>
<td>39.9</td>
<td>39.0</td>
<td>37.0</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- Local, state and national data are simple three-year averages.

Prevalence of Heart Disease & Stroke

PREVALENCE OF HEART DISEASE

A total of 8.1% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina or heart attack.

- Less favorable than the national prevalence.
- Statistically similar by county.

Prevalence of Heart Disease

<table>
<thead>
<tr>
<th>Source Area</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>6.7%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>9.3%</td>
</tr>
<tr>
<td>Moore County</td>
<td>7.2%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>10.3%</td>
</tr>
<tr>
<td>Total Area</td>
<td>8.1%</td>
</tr>
<tr>
<td>US</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 156]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes diagnoses of heart attack, angina or coronary heart disease.
Older adults are more likely to have been diagnosed with chronic heart disease (note the positive correlation of heart disease with age).

### Prevalence of Heart Disease
(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.7%</td>
<td>6.7%</td>
<td>1.2%</td>
<td>8.6%</td>
<td>19.0%</td>
<td>11.0%</td>
<td>9.8%</td>
<td>5.9%</td>
<td>8.9%</td>
<td>7.9%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

**Sources:** 2015 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 156]

**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. “Very Low Income” includes households living below the federal poverty level; “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.

### PREVALENCE OF STROKE

A total of 4.2% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

- Similar to statewide findings.
- Similar to national findings.
- Similar by county.

**Prevalence of Stroke**

<table>
<thead>
<tr>
<th>Category</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></td>
<td>3.9%</td>
<td>4.1%</td>
<td>4.6%</td>
<td>3.8%</td>
<td>4.2%</td>
<td>3.7%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

**Sources:** 2015 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 49]

**Notes:**
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

- Asked of all respondents.
• Adults 40 or older, especially seniors (65+), are more likely to have experienced a stroke (positive correlation with age).

Prevalence of Stroke
(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 %</td>
<td>4.8%</td>
<td>3.7%</td>
<td>0.5%</td>
<td>4.3%</td>
<td>10.4%</td>
<td>7.1%</td>
<td>3.7%</td>
<td>3.4%</td>
<td>4.7%</td>
<td>3.2%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 49]
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. “Very Low Income” includes households living below the federal poverty level; “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.

Cardiovascular Risk Factors

About Cardiovascular Risk

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)

HYPERTENSION (HIGH BLOOD PRESSURE)

High Blood Pressure Testing

A total of 97.7% of Total Area adults have had their blood pressure tested within the past two years.

• Higher than the national findings.
• Satisfies the Healthy People 2020 target (92.6% or higher).
• Lowest in Hoke County.
• TREND: Marks a statistically significant increase since 2003.
Have Had Blood Pressure Checked in the Past Two Years
Healthy People 2020 Target = 92.6% or Higher

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).

Prevalence of Hypertension

A total of 46.2% 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.
- Higher than the Healthy People 2020 target (26.9% or lower).
- Statistically similar by county.
- TREND: Has shown a significant increase over the last sixteen years.

Prevalence of High Blood Pressure
Healthy People 2020 Target = 26.9% or Lower

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 157]

Notes:
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Hypertension diagnoses are higher among:

- Older adults (note the positive correlation with age).
- Residents with very low incomes (note the negative correlation with income).
- Blacks.

**Prevalence of High Blood Pressure**

*(Total Area, 2015)*

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

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>47.1%</td>
<td>45.3%</td>
<td>25.7%</td>
<td>52.4%</td>
<td>66.6%</td>
<td>61.6%</td>
<td>46.6%</td>
<td>43.8%</td>
<td>60.4%</td>
<td>46.2%</td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 157)

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. “Very Low Income” includes households living below the federal poverty level; “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.

**Hypertension Management**

Among respondents who have been told that their blood pressure was high, 90.1% report that they are currently taking actions to control their condition.

- Similar to national findings.
- Higher in Montgomery County.
- TREND: The rate remains statistically higher than it was in 1999.
These individuals were further asked to indicate the measures they are taking to control their hypertension; note the distribution of responses in the following chart. In all, 84.8% of these individuals report using medication (alone, or in combination with changes in diet and/or exercise), 38.0% report using exercise to control their condition (alone or in combination), and 37.7% report using diet (alone or in combination).
HIGH BLOOD CHOLESTEROL

Blood Cholesterol Testing

A total of 91.6% of Total Area adults have had their blood cholesterol checked within the past five years.

- More favorable than North Carolina findings.
- More favorable than the national findings.
- Satisfies the Healthy People 2020 target (82.1% or higher).
- Comparable by county.
- TREND: 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 65, and especially those under 40 (note the positive correlation with age).
- Residents with lower incomes.

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 68)
- Behavioral Risk Factor Surveillance System Survey Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2013 North Carolina data.
- 2013 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).
**CHOLESTEROL LEVELS CHECKED IN THE PAST FIVE YEARS**

(Total Area, 2015)

**Healthy People 2020 Target = 82.1% or Higher**

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Have Had Blood Cholesterol Levels Checked in the Past Five Years</strong></td>
<td>89.4%</td>
<td>93.5%</td>
<td>94.3%</td>
<td>98.4%</td>
<td>89.2%</td>
<td>87.6%</td>
<td>93.8%</td>
<td>92.7%</td>
<td>94.5%</td>
<td>91.6%</td>
<td></td>
</tr>
</tbody>
</table>

**Self-Reported High Blood Cholesterol**

A total of 38.8% of adults have been told by a health professional that their cholesterol level was high.

- Similar to the North Carolina findings.
- Higher than the national prevalence.
- More than twice the Healthy People 2020 target (13.5% or lower).
- Statistically similar by county.
- **TREND:** Denotes a statistically significant increase over time.
Prevalence of High Blood Cholesterol

Healthy People 2020 Target = 13.5% or Lower

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 158]
- Behavioral Risk Factor Surveillance System Data, Atlanta, Georgia, United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC). 2013 North Carolina data.
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- The NC 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 20.1% 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.

Further note the following:

- Older adults are much more likely to report having high blood cholesterol than those under age 40.
- Keep in mind that “unknowns” are relatively high in young adults and lower-income residents.
Prevalence of High Blood Cholesterol
(Total Area, 2015)
Healthy People 2020 Target = 13.5% or Lower

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]

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. “Very Low Income” includes households living below the federal poverty level; “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.

High Cholesterol Management

Among adults who have been told that their blood cholesterol was high, 90.4% report that they are currently taking actions to control their cholesterol levels.

- More favorable than found nationwide.
- Higher in Moore County.
- TREND: Marks a notable increase since 1999.

Taking Action to Control High Blood Cholesterol Levels
(Among Adults With High Cholesterol)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 66]
2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents who have been diagnosed with high blood cholesterol levels.
- In this case, the term “action” refers to medication, change in diet, and/or exercise.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
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, 72.7% of these individuals report using medication (alone, or in combination with changes in diet and/or exercise), 49.7% report using diet to control their condition (alone or in combination), and 40.4% report using exercise (alone or in combination).

![Measures Taken to Control High Blood Cholesterol](chart)

<table>
<thead>
<tr>
<th>Measures Taken to Control High Blood Cholesterol</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meds Only</td>
<td>39.4%</td>
</tr>
<tr>
<td>Diet Only</td>
<td>11.1%</td>
</tr>
<tr>
<td>Exercise Only</td>
<td>5.1%</td>
</tr>
<tr>
<td>Diet/Exercise</td>
<td>11.0%</td>
</tr>
<tr>
<td>Meds/Diet</td>
<td>9.0%</td>
</tr>
<tr>
<td>Meds/Exercise</td>
<td>5.7%</td>
</tr>
<tr>
<td>Diet/Exercise/Meds</td>
<td>18.6%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 67]
Notes: Asked of all respondents who have been diagnosed with high blood cholesterol.
About 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

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.

TOTAL CARDIOVASCULAR RISK

A total of 89.7% of Total Area adults report one or more cardiovascular risk factors, such as being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or cholesterol.

- Higher than national findings.
- Higher in Richmond County; statistically lower in Moore County.
- TREND: Has remained statistically unchanged over time.
Present One or More Cardiovascular Risks or Behaviors

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 159]
2013 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 or 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, and especially seniors.
- Lower income residents.
- Blacks.

Present One or More Cardiovascular Risks or Behaviors
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 159]

Notes:
- Heart disease risks are defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular or 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. “Very Low Income” includes households living below the federal poverty level; “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

About Cancer

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)

Age-Adjusted Cancer Deaths

ALL CANCER DEATHS

Between 2011 and 2013, there was an annual average age-adjusted cancer mortality rate of 171.3 deaths per 100,000 population in the Total Area.

- Similar to the statewide rate.
- Statistically similar to the national rate.
- Fails to satisfy the Healthy People 2020 target of 161.4 or lower.
- Higher in Hoke County and especially Richmond County.
COMMUNITY HEALTH NEEDS ASSESSMENT

Cancer: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 161.4 or Lower

- TREND: Cancer mortality has decreased over the past decade in the Total Area; the same trend is apparent both statewide and nationwide.

Cancer: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 161.4 or Lower

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
CANCER DEATHS BY SITE

Lung cancer is by far the leading cause of cancer deaths in the Total Area.

Other leading sites include prostate cancer among men, breast cancer among women, and colorectal cancer (both genders).

As can be seen in the following chart (referencing 2011-2013 annual average age-adjusted death rates):

- The Total Area lung cancer death rate is higher than found statewide and nationally.
- The Total Area prostate cancer, female breast cancer, and colorectal cancer deaths rates are each lower than both the respective North Carolina and US rates.

Note that lung cancer is the only Total Area cancer death rate detailed below that does not satisfy the related Healthy People 2020 target.

**Age-Adjusted Cancer Death Rates by Site**
*(2011-2013 Annual Average Deaths per 100,000 Population)*

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
<th>HP2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung Cancer</td>
<td>55.1</td>
<td>50.4</td>
<td>44.7</td>
<td>45.5</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>18.7</td>
<td>20.9</td>
<td>19.8</td>
<td>21.8</td>
</tr>
<tr>
<td>Female Breast Cancer</td>
<td>17.9</td>
<td>21.4</td>
<td>21.3</td>
<td>20.7</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>11.4</td>
<td>14.0</td>
<td>14.9</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Cancer Incidence

Incidence rates reflect the number of newly diagnosed cases in a given population in a given year, regardless of outcome. Here, these rates are also age-adjusted.

Between 2007 and 2011, the Total Area had an annual average age-adjusted incidence rate of prostate cancer of 151.0 cases per 100,000 population.

- Comparable to the statewide incidence rate.
- Statistically comparable to the national incidence rate.
- Highest in Hoke County.
There was an annual average age-adjusted incidence rate of 124.6 female breast cancer cases per 100,000 in the Total Area.

- Statistically similar to the statewide incidence rate.
- Statistically similar to the national incidence rate.
- Significantly higher in Moore and Richmond counties.

There was an annual average age-adjusted incidence rate of 77.6 lung cancer cases per 100,000 in the Total Area.

- Worse than the statewide incidence rate.
- Much worse than the national incidence rate.
- Higher in Hoke and Richmond counties.

There was an annual average age-adjusted incidence rate of colorectal cancer of 38.9 cases per 100,000 in the Total Area.

- More favorable than the statewide incidence rate.
- More favorable than the national incidence rate.
- Higher in Montgomery and Richmond counties.

There was an annual average age-adjusted incidence rate of cervical cancer of 11.3 cases per 100,000 in the Total Area.

- Worse than the statewide incidence rate.
- Worse than the national incidence rate.
- Higher in Richmond County when compared with Moore County.

Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2007-2011)


Notes:
- This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.
- Cervical Cancer incidence rates are not available for Hoke County and Montgomery County.
Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2007-2011)

Sources: State Cancer Profiles: 2007-2011

Notes: This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.

- By available race data, Blacks experience a higher incidence of prostate cancer, lung cancer, and colorectal cancer than Whites in the Total Area.
- In contrast, Whites in the Total Area have a higher female breast cancer incidence rate.

Cancer Incidence Rates by Site and Race/Ethnicity
(Annual Average Age-Adjusted Incidence per 100,000 Population, Total Area 2007-2011)

Sources: State Cancer Profiles: 2007-2011

Notes: This indicator reports the age adjusted incidence rate (cases per 100,000 population per year) of cancers, adjusted to 2000 US standard population age groups (under age 1, 1-4, 5-9, ..., 80-84, 85 and older). This indicator is relevant because cancer is a leading cause of death and it is important to identify cancers separately to better target interventions.
- Cervical Cancer incidence rates by race are unavailable.
Prevalence of Cancer

SKIN CANCER

A total of 9.4% of surveyed adults, in the Total Area, report having been diagnosed with skin cancer.

- Higher than what is found statewide.
- Higher than the national average.
- High in Moore County, and particularly low in Hoke County.

Prevalence of Skin Cancer

<table>
<thead>
<tr>
<th>County</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>3.5%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>9.9%</td>
</tr>
<tr>
<td>Moore County</td>
<td>12.3%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>8.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>9.4%</td>
</tr>
<tr>
<td>NC</td>
<td>6.4%</td>
</tr>
<tr>
<td>US</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 45]
2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: Asked of all respondents.

OTHER CANCER

A total of 8.4% of respondents have been diagnosed with some type of (non-skin) cancer.

- Less favorable than the statewide prevalence.
- Less favorable than the national prevalence.
- Lower in Hoke County.
Prevalence of Cancer (Other Than Skin Cancer)

Cancer Risk

About 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

Cancer Screenings

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 exam and digital rectal exam); female breast cancer (mammography); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).
PROSTATE CANCER SCREENINGS

About Screening for Prostate Cancer

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, 36.8% had a PSA (prostate-specific antigen) test in the past year.

- Another 9.8% had a PSA test between one and two years ago, and 2.7% were tested between two and three years ago.
- In contrast, 42.5% of Total Area men (18+) have never been tested (reasons include: “don’t feel I need one,” “doctor has not recommended,” and “not aware screening exists,” to name a few).

Note: Since 2008 changes in clinical recommendations against routine PSA testing, most communities are seeing prevalence decline.
Among Total Area men age 40 and older, 37.6% had a digital rectal examination for prostate problems within the past year.

- Another 14.0% had a digital rectal exam between one and two years ago.
- On the other hand, 14.5% of men 40+ have not received this screening; the most prevalent reasons were: “don’t feel I need one” and “doctor has not recommended.”
More than 7 out of 10 men age 50 and older (72.9%) have had a PSA (prostate-specific antigen) test and/or a digital rectal examination for prostate problems within the past two years.

- Much higher than the North Carolina rate.
- Similar to national findings.
- Statistically similar by county.
- TREND: Screening prevalence has declined considerably since the 2008 change in screening guidelines.

### Have Had a Prostate Screening in the Past Two Years
(Among Men Age 50+)

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 210]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects male respondents 50 and older.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
- *Use caution when interpreting since sample size <50.
FEMALE BREAST CANCER SCREENING

About Screening for Breast Cancer

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.

Mammography

Among Total Area women age 18 and older, 44.6% had a mammogram within the past year.

- Another 15.5% of Total Area women had a mammogram between one and two years ago.
- On the other hand, 25.9% of area women have not had a mammogram (reasons given were: “doctor has not recommended,” “don’t feel I need one” and “cost,” to name a few).
Among women age 50-74, 82.4% have had a mammogram within the past two years.

- Statistically comparable to statewide findings (which represent all women 50+).
- Comparable to national findings.
- Comparable to the Healthy People 2020 target (81.1% or higher).
- Statistically comparable by county.
- Among women 40+, 80.3% have had a mammogram in the past two years.
- TREND: Despite small fluctuations, mammography testing in the Total Area is statistically unchanged from 1999.

### Have Had a Mammogram in the Past Two Years
(Among Women Age 50-74)

**Healthy People 2020 Target = 81.1% 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>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>87.4%</td>
<td>87.6%</td>
<td>80.8%</td>
<td>80.1%</td>
<td>82.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>87.2%</td>
<td>87.6%</td>
<td>80.8%</td>
<td>80.1%</td>
<td>82.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>80.1%</td>
<td>87.6%</td>
<td>80.1%</td>
<td>82.4%</td>
<td>79.4%</td>
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<tr>
<td>2011</td>
<td>83.6%</td>
<td>80.1%</td>
<td>82.5%</td>
<td>82.4%</td>
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<td></td>
</tr>
<tr>
<td>2015</td>
<td>83.9%</td>
<td>88.3%</td>
<td>80.1%</td>
<td>82.4%</td>
<td>83.6%</td>
<td></td>
<td></td>
<td></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).
Among Total Area women age 18 and older, 66.1% had a clinical breast exam (wherein a doctor, nurse or other health professional feels the breast for lumps) within the past year.

- Another 17.1% of Total Area women had a clinical breast exam in the past two years.
- A total of 2.2% have never had this type of screening.

**Most Recent Clinical Breast Exam**
(Total Area Females Age 18+, 2015)

- Past Year: 66.1%
- Past 2 Years: 17.1%
- Past 3 Years: 5.1%
- Past 5 Years: 3.5%
- 5+ Years: 6.0%
- Never: 2.2%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 96]
Notes: Asked of all female respondents.
CERVICAL CANCER SCREENINGS

About Screening for Cervical Cancer

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, 81.4% have had a Pap smear within the past three years.

- Similar to North Carolina findings (which represents all women 18+).
- Similar to national findings.
- Fails to satisfy the Healthy People 2020 target (93% or higher).
- Lower among women in Montgomery County; higher in Hoke County.
- TREND: Denotes a statistically significant decrease over the past sixteen years.
COMMUNITY HEALTH NEEDS ASSESSMENT

Have Had a Pap Smear in the Past Three Years
(Among Women Age 21-65)
Healthy People 2020 Target = 93.0% 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>90.0%</td>
<td>90.4%</td>
<td>69.3%</td>
<td>88.0%</td>
<td>82.8%</td>
<td>81.4%</td>
<td>81.7%</td>
</tr>
<tr>
<td>2003</td>
<td>89.5%</td>
<td>89.4%</td>
<td>82.8%</td>
<td>80.0%</td>
<td>87.3%</td>
<td>83.9%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>87.0%</td>
<td>87.0%</td>
<td>87.3%</td>
<td>87.0%</td>
<td>81.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>81.4%</td>
<td>81.4%</td>
<td>81.7%</td>
<td>81.4%</td>
<td>83.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>83.9%</td>
<td>83.9%</td>
<td>83.9%</td>
<td>83.9%</td>
<td>83.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 162]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects female respondents age 21 to 65.
- *Note that the NC 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

About Screening for Colorectal Cancer

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, 73.3% 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).

- Similar to national findings.
- Similar to the Healthy People 2020 target (70.5% or higher).
- Higher in Hoke and Moore counties; lower in Richmond County.
- TREND: Since 2011, colorectal cancer screening in the Total Area has significantly decreased.
Have Had a Colorectal Cancer Screening
(Total Area Adults Age 50-75, 2015)
Healthy People 2020 Target = 70.5% or Higher

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>82.3%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>66.4%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Moore County</td>
<td>76.7%</td>
<td>75.1%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>66.3%</td>
<td>81.6%</td>
</tr>
<tr>
<td>Total Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lower Endoscopy
Among adults age 50 and older, more than three-fourths (78.1%) have had a lower endoscopy (sigmoidoscopy or colonoscopy) at some point in their lives.

- More favorable than North Carolina findings.
- Similar to national findings.
- TREND: Shows a statistically significant increase since 1999.

Blood Stool Testing
Among adults age 50 and older, 29.5% have had a blood stool test (aka “fecal occult blood test”) within the past two years.

- Much higher than the North Carolina findings.
- Lower than national findings.
- TREND: Marks a statistically significant decrease over the past sixteen years.

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 165]

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.
Colorectal Cancer Screenings
(Among Total Area Adults Age 50 and Older, 2015)

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 163-164]

Notes:
- Asked of respondents age 50 and older.
- Lower endoscopy includes either sigmoidoscopy or colonoscopy.
Respiratory Disease

About Asthma & COPD

Asthma and chronic obstructive pulmonary disease (COPD) are significant public health burdens. Specific methods of detection, intervention, and treatment exist that may reduce this burden and promote health.

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.

COPD is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.

The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the healthcare system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual healthcare expenditures for asthma alone are estimated at $20.7 billion.

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)

[NOTE: COPD was changed to chronic lower respiratory disease (CLRD) with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.]
Age-Adjusted Respiratory Disease Deaths

CHRONIC LOWER RESPIRATORY DISEASE DEATHS (CLRD)

Between 2011 and 2013, there was an annual average age-adjusted CLRD mortality rate of 45.6 deaths per 100,000 population in the Total Area.

- Similar to that found statewide.
- Higher than the national rate.
- Higher in Montgomery and Richmond counties.

Note: COPD was changed to chronic lower respiratory disease (CLRD) in 1999 with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.

**CLRD: Age-Adjusted Mortality**

(2011-2013 Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th>County</th>
<th>Mortality Rate (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>48.8</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>56.6</td>
</tr>
<tr>
<td>Moore County</td>
<td>36.2</td>
</tr>
<tr>
<td>Richmond County</td>
<td>65.5</td>
</tr>
<tr>
<td>Total Area</td>
<td>45.6</td>
</tr>
<tr>
<td>NC</td>
<td>46.4</td>
</tr>
<tr>
<td>US</td>
<td>42.0</td>
</tr>
</tbody>
</table>

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- CLRD is chronic lower respiratory disease.

- TREND: Despite small variations, CLRD mortality in the Total Area has remained fairly steady since 2005.
CLRD: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)

sources:

CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:

- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- CLRD is chronic lower respiratory disease.

PNEUMONIA/INFLUENZA DEATHS

Between 2011 and 2013, there was an annual average age-adjusted pneumonia influenza mortality rate of 15.1 deaths per 100,000 population in the Total Area.

- Lower than found statewide.
- Similar to the national rate.
- Higher in Montgomery County (note: not all county-level data are available).

Pneumonia/Influenza: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)

sources:

CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:

- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

For prevalence of vaccinations for pneumonia and influenza, see also Immunization & Infectious Disease.
• TREND: There has been an overall downward trend in pneumonia/influenza mortality in the Total Area over the past decade.

Pneumonia/Influenza: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)

Survey respondents were next asked to indicate whether they suffer from or have been diagnosed with various respiratory conditions, including asthma and COPD.

Prevalence of Respiratory Issues

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

A total of 9.5% of Total Area adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).

• Higher than the state prevalence.
• Statistically similar to the national prevalence.
• Similar by county.
Prevalence of Chronic Obstructive Pulmonary Disease (COPD)

**Sources:**
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 51]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Asked of all respondents.
- Includes those having ever suffered from or been diagnosed with COPD or chronic obstructive pulmonary disease, including bronchitis or emphysema.

- Older adults and residents with lower incomes are more likely to have been diagnosed with COPD.

### Prevalence of Chronic Obstructive Pulmonary Disease (COPD)

**Total Area, 2015**

- **Men:**
  - 8.9%
  - 9.9%
  - 4.9%
  - 12.1%
  - 12.0%
- **Women:**
  - 16.1%
  - 14.1%
  - 6.7%
  - 9.2%
- **18 to 39:**
  - 4.9%
  - 9.9%
- **40 to 64:**
  - 12.1%
  - 12.0%
- **65+**
  - 16.1%
  - 14.1%
- **Very Low Income:**
  - 6.7%
- **Low Income:**
  - 9.2%
- **Mid/High Income:**
  - 12.6%
- **White:**
  - 8.9%
- **Black:**
  - 9.5%
- **Total Area:**
  - 8.6%
**COMMUNITY HEALTH NEEDS ASSESSMENT**

**COPD Risk**

Of Total Area adults without a COPD diagnosis, 3.7% have at least two risk factors for COPD.

- Higher among Richmond County residents; lower in Moore County.

**At High Risk for COPD**

(Among Respondents Reporting No COPD Diagnosis)

High Risk for COPD is defined as more than ten years of tobacco use and exhibiting one or more of the following:
1) Frequent productive cough;
2) Frequent shortness of breath (SOB); and/or
3) Reduced physical activity due to SOB.

**POSSIBLE SYMPTOMS OF RESPIRATORY ISSUES**

**Productive Cough**

A total of 11.5% cough up mucus or phlegm most days or every day in a typical month.

- Statistically comparable by county.

**Cough up Mucus or Phlegm**

“Most/All” Days in a Typical Month

---

High Risk for COPD is defined as more than ten years of tobacco use and exhibiting one or more of the following:
1) Frequent productive cough;
2) Frequent shortness of breath (SOB); and/or
3) Reduced physical activity due to SOB.

**POSSIBLE SYMPTOMS OF RESPIRATORY ISSUES**

**Productive Cough**

A total of 11.5% cough up mucus or phlegm most days or every day in a typical month.

- Statistically comparable by county.

**Cough up Mucus or Phlegm**

“Most/All” Days in a Typical Month

---

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 211, 51]
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 52]

Notes:
- Among Respondents reporting no COPD diagnosis.
- Asked of all respondents.
• Men and adults age 65 and over are more likely to report high frequency of productive cough.

Cough up Mucus or Phlegm
“Most/All” Days in a Typical Month
(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16.3%</td>
<td>7.3%</td>
<td>8.1%</td>
<td>12.2%</td>
<td>15.7%</td>
<td>14.1%</td>
<td>11.0%</td>
<td>9.7%</td>
<td>12.0%</td>
<td>12.9%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 52]
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. “Very Low Income” includes households living below the federal poverty level; “Low Income” includes households with incomes up to 200% of the federal poverty level; and “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

Shortness of Breath
A total of 3.9% of Total Area residents experience shortness of breath most days or every day in a typical month.

• Statistically similar by county.

Experience Shortness of Breath
“Most/All” Days in a Typical Month

<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>4.3%</td>
<td>6.5%</td>
<td>3.0%</td>
<td>4.2%</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 53]
Notes:
- Asked of all respondents.
• Adults age 40 and over, as well as lower income residents, exhibit a higher prevalence of recurring shortness of breath.

**Experience Shortness of Breath**

“Most/All” Days in a Typical Month

(Total Area, 2015)

A total of 19.0% of Total Area adults agree or strongly agree that shortness of breath has reduced their physical activity during the past year.

• Higher in Richmond County; lower in Moore County.
ASTHMA

Adults

A total of 13.0% of Total Area adults have ever been diagnosed with asthma.

- Nearly identical to the statewide prevalence.
- More favorable than the national prevalence.
- Higher in Richmond County; lower in Moore County.
- TREND: The prevalence of adults who have ever been diagnosed with asthma is statistically similar to 2003.

**Ever Diagnosed With Asthma**

The following adults are more likely to suffer from asthma:

- Adults age 40-64 when compared with those age 65+.
- Residents with very low incomes.
COMMUNITY HEALTH NEEDS ASSESSMENT

Ever Diagnosed With Asthma
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]

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. “Very Low Income” includes households living below the federal poverty level; “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.

RESPIRATORY ISSUES AND SMOKING

Among survey respondents with asthma, 46.8% have smoked for 10 years or more (including 15.4% who have smoked over 30 years), putting them at high risk for COPD.

Among respondents with a previous COPD diagnosis, a full 68.9% have smoked for 10 years or more (including 35.4% who have been smokers for over 30 years).

Smoking Frequency
(Among Respondents With Asthma and COPD)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50, 51, 72, 211, 212]

Notes: Among Respondents With asthma and COPD.

High Risk for COPD is defined as more than ten years of tobacco use and exhibiting one or more of the following: 1) frequent productive cough; 2) frequent shortness of breath (SOB); and/or 3) reduced physical activity due to SOB.
Injury & Violence

About Injury & Violence

Injuries and violence are widespread in society. Both unintentional injuries and those caused by acts of violence are among the top 15 killers for Americans of all ages. Many people accept them as "accidents," "acts of fate," or as "part of life." However, most events resulting in injury, disability, or death are predictable and preventable.

Injuries are the leading cause of death for Americans ages 1 to 44, and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status. More than 180,000 people die from injuries each year, and approximately 1 in 10 sustains a nonfatal injury serious enough to be treated in a hospital emergency department.

Beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to:

- Premature death
- Disability
- Poor mental health
- High medical costs
- Lost productivity

The effects of injuries and violence extend beyond the injured person or victim of violence to family members, friends, coworkers, employers, and communities.

Numerous factors can affect the risk of unintentional injury and violence, including individual behaviors, physical environment, access to health services (ranging from pre-hospital and acute care to rehabilitation), and social environment (from parental monitoring and supervision of youth to peer group associations, neighborhoods, and communities).

Interventions addressing these social and physical factors have the potential to prevent unintentional injuries and violence. Efforts to prevent unintentional injury may focus on:

- Modifications of the environment
- Improvements in product safety
- Legislation and enforcement
- Education and behavior change
- Technology and engineering

Efforts to prevent violence may focus on:

- Changing social norms about the acceptability of violence
- Improving problem-solving skills (for example, parenting, conflict resolution, coping)
- Changing policies to address the social and economic conditions that often give rise to violence

Leading Causes of Accidental Death

Motor vehicle accidents, poisoning (including accidental drug overdose), falls, and suffocation accounted for 77.8% of accidental deaths in the Total Area between 2011 and 2013.
Unintentional Injury

**AGE-ADJUSTED UNINTENTIONAL INJURY DEATHS**

Between 2011 and 2013, there was an annual average age-adjusted unintentional injury mortality rate of 42.4 deaths per 100,000 population in the Total Area.

- Similar to the North Carolina rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target (36.4 or lower).
- Higher in Montgomery and Richmond counties.

---

**Unintentional Injuries: Age-Adjusted Mortality**

(2011-2013 Annual Average Deaths per 100,000 Population)

**Healthy People 2020 Target = 36.4 or Lower**

<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>2011-2013 Deaths</td>
<td>41.9</td>
<td>52.1</td>
<td>35.2</td>
<td>57.5</td>
<td>42.4</td>
<td>43.2</td>
<td>39.2</td>
</tr>
</tbody>
</table>

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**Sources:**
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

**Notes:**
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
• TREND: There is a downward trend in the unintentional injury mortality rate of the Total Area, echoing the North Carolina trend. The national rate has remained constant.

**Unintentional Injuries: Age-Adjusted Mortality Trends**
*(Annual Average Deaths per 100,000 Population)*

*Healthy People 2020 Target = 36.4 or Lower*

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-2006</td>
<td>56.7</td>
<td>47.5</td>
<td>39.3</td>
</tr>
<tr>
<td>2005-2007</td>
<td>54.7</td>
<td>47.7</td>
<td>40.0</td>
</tr>
<tr>
<td>2006-2008</td>
<td>53.8</td>
<td>47.2</td>
<td>39.9</td>
</tr>
<tr>
<td>2007-2009</td>
<td>51.7</td>
<td>46.1</td>
<td>39.0</td>
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<tr>
<td>2008-2010</td>
<td>51.2</td>
<td>44.4</td>
<td>38.2</td>
</tr>
<tr>
<td>2009-2011</td>
<td>50.5</td>
<td>43.5</td>
<td>38.2</td>
</tr>
<tr>
<td>2010-2012</td>
<td>47.5</td>
<td>43.3</td>
<td>38.7</td>
</tr>
<tr>
<td>2011-2013</td>
<td>42.4</td>
<td>43.2</td>
<td>39.2</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

**MOTOR VEHICLE SAFETY**

*Age-Adjusted Motor-Vehicle Related Deaths*

Between 2011 and 2013, there was an annual average age-adjusted motor vehicle crash mortality rate of 16.3 deaths per 100,000 population in the Total Area.

- Higher than found statewide.
- Higher than found nationally.
- Fails to satisfy the Healthy People 2020 target (12.4 or lower).
- Lower in Moore County when compared with Hoke and Richmond counties.
Motor Vehicle Crashes: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 12.4 or Lower

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Total Area</td>
<td>26.0</td>
<td>25.5</td>
<td>24.9</td>
<td>23.1</td>
<td>21.6</td>
<td>22.3</td>
<td>19.8</td>
<td>16.3</td>
</tr>
<tr>
<td>NC</td>
<td>18.8</td>
<td>18.7</td>
<td>17.9</td>
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<td>14.7</td>
<td>13.5</td>
<td>13.1</td>
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<tr>
<td>US</td>
<td>14.6</td>
<td>14.3</td>
<td>13.5</td>
<td>12.4</td>
<td>11.4</td>
<td>10.8</td>
<td>10.7</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes: Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- TREND: The mortality rate in the Total Area decreased over the past decade, mirroring the state and national trends.

FIREARM SAFETY
Age-Adjusted Firearm-Related Deaths
Between 2011 and 2013, there was an annual average age-adjusted rate of 17.1 deaths per 100,000 population due to firearms in the Total Area.
- Higher than found statewide.
- Higher than found nationally.
- Fails to satisfy the Healthy People 2020 objective (9.3 or lower).
- Higher in Hoke County; lower in Richmond County.

**Firearms-Related Deaths: Age-Adjusted Mortality**
*(2011-2013 Annual Average Deaths per 100,000 Population)*

**Healthy People 2020 Target = 9.3 or Lower**

**TREND:** Despite fluctuations, the mortality rate in the Total Area has increased over the past decade, contrasting with the relatively stable rates of the state and nation.

**Notes:**
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
Intentional Injury (Violence)

AGE-ADJUSTED HOMICIDE DEATHS

Between 2011 and 2013, there was an annual average age-adjusted homicide rate of 9.3 deaths per 100,000 population in the Total Area.

- Less favorable than the rate found statewide.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target of 5.5 or lower.

**Homicide: Age-Adjusted Mortality**

(2011-2013 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 5.5 or Lower

- Total Area: 9.3
- NC: 5.8
- US: 5.3

**TRENDS:**

- There is no clear trend in the homicide rate of the Total Area; however, the rate is significantly higher than it was in 2005. In contrast, the North Carolina and national rates have both decreased slightly.
Homicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 5.5 or Lower

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>8.6</td>
<td>8.5</td>
<td>8.6</td>
<td>9.8</td>
<td>9.3</td>
<td>8.0</td>
<td>7.9</td>
<td>9.3</td>
</tr>
<tr>
<td>NC</td>
<td>7.3</td>
<td>7.3</td>
<td>7.2</td>
<td>6.9</td>
<td>6.3</td>
<td>5.8</td>
<td>5.7</td>
<td>5.8</td>
</tr>
<tr>
<td>US</td>
<td>6.1</td>
<td>6.1</td>
<td>6.1</td>
<td>5.8</td>
<td>5.6</td>
<td>5.4</td>
<td>5.3</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

VIOLENT CRIME

Violent Crime Rates

From 2010 to 2012, there were a reported 265.5 violent crimes per 100,000 population in the Total Area.

- Notably less than the North Carolina rate for the same period.
- Much less than the national rate.
- Distinctly higher in Richmond County; lower in Hoke County.

Violent Crime
(Rate per 100,000 Population, 2010-2012)

<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>2010-2012</td>
<td>136.6</td>
<td>209.2</td>
<td>218.7</td>
<td>265.5</td>
<td>353.6</td>
<td>395.5</td>
<td></td>
</tr>
</tbody>
</table>
Diabetes

**About 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.

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.

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)

**Age-Adjusted Diabetes Deaths**

Between 2011 and 2013, there was an annual average age-adjusted diabetes mortality rate of 24.7 deaths per 100,000 population in the Total Area.

- Less favorable than that found statewide.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target (20.5 or lower, adjusted to account for diabetes mellitus-coded deaths).
- Much higher in Richmond County; lower in Moore County.
Diabetes: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 20.5 or Lower (Adjusted)

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.

- TREND: After declining in the late 2000s, diabetes mortality in the Total Area rose above state and national rates.

Diabetes: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 20.5 or Lower (Adjusted)

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- The Healthy People 2020 target for Diabetes is adjusted to account for only diabetes mellitus coded deaths.
Prevalence of Diabetes

A total of 18.6% of Total Area adults report having been diagnosed with diabetes.

- Less favorable than the statewide proportion.
- Less favorable than the national proportion.
- Higher in Richmond County.
- TREND: Diabetes prevalence in the Total Area shows a statistically significant increase since 1999.

A higher prevalence of diagnosed diabetes (excluding pre-diabetes or borderline diabetes) is reported among:

- Older adults (note the positive correlation with age).
- Residents with higher incomes.
- Blacks.
Prevalence of Diabetes
(Total Area, 2015)

Diabetes Treatment & Education
MEDICATION/INSULIN
Among adults with diabetes, more than three-fourths (76.5%) are currently taking insulin or some type of medication to manage their condition.

Taking Insulin or Other Medication for Diabetes
(Among Total Area Diabetics)
DIABETES-RELATED HOSPITALIZATIONS

Most diabetic respondents (85.0%) had no diabetes-related hospitalizations in the past year.

- However, 15.1% of Total Area diabetics had at least one diabetes-related hospitalization in the past year (including 7.6% with two or more).

![Pie chart showing number of diabetes-related hospitalizations or ER visits in the past year among total area diabetics.]

- None 85.0%
- One 7.5%
- Two 5.9%
- Three/More 1.7%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 58]
Notes: Asked of all diabetic respondents.

DIABETES EDUCATION

Just over one-half (51.2%) of respondents with diabetes have taken a course on diabetes management.

![Pie chart showing diabetes education status among total area diabetics.]

- Yes 51.2%
- No 48.8%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 59]
Notes: Asked of all diabetic respondents.
Blood Sugar Testing
Of all adults in the Total Area, 79.4% report having their blood sugar tested in the past year.

Most Recent Blood Sugar Check by Healthcare Professional
(Among Total Area Adults 18+, 2015)

A total of 90.8% of Total Area adults have had their blood sugar tested within the past three years.

- The prevalence of recent blood sugar tests is highest among Moore County residents and lowest among those living in Montgomery County.
- TREND: The prevalence of blood sugar testing within the past year has displayed a statistically significant increase since 2011.

Have Had Blood Sugar Tested in the Past Three Years
(Total Area Respondents, 2015)
Borderline/Pre-Diabetes

Among non-diabetic adults of the Total Area, 6.0% report that they have “pre-diabetes” or “borderline diabetes.”

- Comparable to the US prevalence.
- Comparable by county.
- TREND: Statistically unchanged since 2011.

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

(Among Non-Diabetic Respondents)

<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>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>7.3%</td>
<td>7.0%</td>
<td>4.8%</td>
<td>6.8%</td>
<td>6.0%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2015</td>
<td>6.0%</td>
<td>6.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 56)

**Notes:**
- Asked of all non-diabetic respondents.
- These population segments are more likely to have been diagnosed as borderline or pre-diabetic:
  - Women.
  - Adults age 40-64 when compared with those age 18-39.
  - Blacks.
Have Been Diagnosed as Borderline or Pre-Diabetic
(Total Area Non-Diabetic Respondents, 2015)

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 56]
- 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. “Very Low Income” includes households living below the federal poverty level; “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.

Notes:
Alzheimer’s Disease

About Dementia

Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—to such an extent that it interferes with a person’s daily life. Dementia is not a disease itself, but rather a set of symptoms. Memory loss is a common symptom of dementia, although memory loss by itself does not mean a person has dementia. Alzheimer’s disease is the most common cause of dementia, accounting for the majority of all diagnosed cases.

Alzheimer’s disease is the 6th leading cause of death among adults age 18 years and older. Estimates vary, but experts suggest that up to 5.1 million Americans age 65 years and older have Alzheimer’s disease. These numbers are predicted to more than double by 2050 unless more effective ways to treat and prevent Alzheimer’s disease are found.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Alzheimer’s Disease Deaths

Between 2011 and 2013, there was an annual average age-adjusted Alzheimer’s disease mortality rate of 37.0 deaths per 100,000 population in the Total Area.

- Higher than the statewide rate.
- Higher than the national rate.
- Lower in Richmond and Hoke counties.

Alzheimer’s Disease: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
- TREND: The Alzheimer’s disease mortality rate in the Total Area increased significantly since 2005, while the North Carolina and national rates appear relatively unchanged.

### Alzheimer’s Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>28.4</td>
<td>28.5</td>
<td>28.5</td>
<td>31.9</td>
<td>35.0</td>
<td>36.0</td>
<td>36.0</td>
<td>37.0</td>
</tr>
<tr>
<td>NC</td>
<td>28.7</td>
<td>28.8</td>
<td>28.6</td>
<td>29.2</td>
<td>29.8</td>
<td>29.6</td>
<td>29.3</td>
<td>28.5</td>
</tr>
<tr>
<td>US</td>
<td>23.4</td>
<td>23.8</td>
<td>24.4</td>
<td>24.6</td>
<td>25.0</td>
<td>24.7</td>
<td>24.5</td>
<td>24.0</td>
</tr>
</tbody>
</table>

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
Kidney Disease

About Chronic Kidney Disease

Chronic kidney disease and end-stage renal disease are significant public health problems in the United States and a major source of suffering and poor quality of life for those afflicted. They are responsible for premature death and exact a high economic price from both the private and public sectors. Nearly 25% of the Medicare budget is used to treat people with chronic kidney disease and end-stage renal disease.

Genetic determinants have a large influence on the development and progression of chronic kidney disease. It is not possible to alter a person’s biology and genetic determinants; however, environmental influences and individual behaviors also have a significant influence on the development and progression of chronic kidney disease. As a result, some populations are disproportionately affected. Successful behavior modification is expected to have a positive influence on the disease.

Diabetes is the most common cause of kidney failure. The results of the Diabetes Prevention Program (DPP) funded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) show that moderate exercise, a healthier diet, and weight reduction can prevent development of type 2 diabetes in persons at risk.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Kidney Disease Deaths

Between 2011 and 2013, there was an annual average age-adjusted kidney disease mortality rate of 17.0 deaths per 100,000 population in the Total Area.

- Similar to the rate found statewide.
- Less favorable than the national rate.
- Highest in Hoke County; lowest in Moore County.

Kidney Disease: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)

Sources:
- CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 U.S. Standard Population.
TREND: The kidney disease mortality rate has fluctuated from year to year over the past ten years but is statistically unchanged from the 2005 rate.

### Kidney Disease: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>17.1</td>
<td>19.9</td>
<td>18.6</td>
<td>19.2</td>
<td>18.0</td>
<td>19.1</td>
<td>17.2</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>18.5</td>
<td>18.9</td>
<td>18.9</td>
<td>19.0</td>
<td>19.1</td>
<td>18.6</td>
<td>17.5</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>14.7</td>
<td>14.8</td>
<td>14.9</td>
<td>15.0</td>
<td>15.2</td>
<td>14.6</td>
<td>13.9</td>
<td>13.2</td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### Prevalence of Kidney Disease

A total of 4.2% of Total Area adults report having been diagnosed with kidney disease.

- Higher than the North Carolina proportion.
- Statistically similar to the national proportion.
- Higher in Richmond County; lower in Moore County.

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
A higher prevalence of kidney disease is reported among seniors (65+) in the Total Area (note the positive correlation with age).

**Prevalence of Kidney Disease**

*(Total Area, 2015)*

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence (%)</td>
<td>3.7</td>
<td>4.7</td>
<td>1.8</td>
<td>4.2</td>
<td>8.4</td>
<td>6.6</td>
<td>4.4</td>
<td>2.1</td>
<td>4.0</td>
<td>6.1</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]

Notes:
- As 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. “Very Low Income” includes households living below the federal poverty level; “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.
Infectious Disease
Influenza & Pneumonia Vaccination

About Influenza & Pneumonia

Acute respiratory infections, including pneumonia and influenza, are the 8th leading cause of death in the nation, accounting for 56,000 deaths annually. Pneumonia mortality in children fell by 97% in the last century, but respiratory infectious diseases continue to be leading causes of pediatric hospitalization and outpatient visits in the US. 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)

Flu Vaccinations

Among Total Area seniors, 74.7% received a flu shot (or FluMist®) within the past year.

- Statistically comparable to the North Carolina finding.
- Higher than the national finding.
- Satisfies the Healthy People 2020 target (70% or higher).
- Higher in Moore County.
- TREND: Despite a drop in 2011, flu vaccinations for seniors have significantly increased since 2003.

Older Adults: Have Had a Flu Vaccination in the Past Year

(Among Adults Age 65+)

Healthy People 2020 Target = 70.0% or Higher

FluMist® is a vaccine that is sprayed into the nose to help protect against influenza; it is an alternative to traditional flu shots.
Pneumonia Vaccination

Among adults age 65 and older, 79.9% have received a pneumonia vaccination at some point in their lives.

- Higher than the North Carolina finding.
- Higher than the national finding.
- Fails to satisfy the Healthy People 2020 target of 90% or higher.
- Higher in Moore County.

**Older Adults: Have Ever Had a Pneumonia Vaccine**

(Among Adults Age 65+)

*Healthy People 2020 Target = 90.0% or Higher*

---

### Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 175]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

### Notes:
- Reflects respondents 65 and older.

---

### Diagram:

- Hoke County: 76.4%
- Montgomery County: 76.4%
- Moore County: 84.2%
- Richmond County: 71.7%
- Total Area: 79.9%
- North Carolina: 71.9%
- United States: 68.4%
HIV

About HIV

The HIV epidemic in the United States continues to be a major public health crisis. An estimated 1.1 million Americans are living with HIV, and 1 in 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new HIV infections each year.

HIV is a preventable disease, and effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drug-using partners. More than 50% of new HIV infections occur as a result of the 21% of people who have HIV but do not know it.

In the era of increasingly effective treatments for HIV, people with HIV are living longer, healthier, and more productive lives. Deaths from HIV infection have greatly declined in the United States since the 1990s. As the number of people living with HIV grows, it will be more important than ever to increase national HIV prevention and healthcare programs.

There are gender, race, and ethnicity disparities in new HIV infections:

- Nearly 75% of new HIV infections occur in men.
- More than half occur in gay and bisexual men, regardless of race or ethnicity.
- 45% of new HIV infections occur in African Americans, 35% in whites, and 17% in Hispanics.

Improving access to quality healthcare for populations disproportionately affected by HIV, such as persons of color and gay and bisexual men, is a fundamental public health strategy for HIV prevention.

People getting care for HIV can receive:

- Antiretroviral therapy
- Screening and treatment for other diseases (such as sexually transmitted infections)
- HIV prevention interventions
- Mental health services
- Other health services

As the number of people living with HIV increases and more people become aware of their HIV status, prevention strategies that are targeted specifically for HIV-infected people are becoming more important. Prevention work with people living with HIV focuses on:

- Linking to and staying in treatment.
- Increasing the availability of ongoing HIV prevention interventions.
- Providing prevention services for their partners.

Public perception in the US about the seriousness of the HIV epidemic has declined in recent years. There is evidence that risky behaviors may be increasing among uninfected people, especially gay and bisexual men. Ongoing media and social campaigns for the general public and HIV prevention interventions for uninfected persons who engage in risky behaviors are critical.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted HIV/AIDS Deaths

Between 2004 and 2013, there was an annual average age-adjusted HIV/AIDS mortality rate of 3.9 deaths per 100,000 population in the Total Area.

- Higher than found statewide.
- Higher than the rate reported nationally.
- Fails to satisfy the Healthy People 2020 target (3.3 or lower).
Higher in Richmond County (note: not all county-level data are available).

### HIV/AIDS: Age-Adjusted Mortality

(2004-2013 Annual Average Deaths per 100,000 Population)

**Healthy People 2020 Target = 3.3 or Lower**

<table>
<thead>
<tr>
<th>County</th>
<th>Deaths per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moore County</td>
<td>2.9</td>
</tr>
<tr>
<td>Richmond County</td>
<td>5.3</td>
</tr>
<tr>
<td>Total Area</td>
<td>3.9</td>
</tr>
<tr>
<td>NC</td>
<td>3.6</td>
</tr>
<tr>
<td>US</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Sources: CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes: Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10). Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

### HIV Prevalence

In 2010, there was a prevalence of 249.2 HIV cases per 100,000 population in the Total Area.

- More favorable than the statewide prevalence.
- Much more favorable than the national prevalence.
- Higher in Hoke and Richmond counties.

### HIV Prevalence

(Prevalence Rate of HIV per 100,000 Population, 2010)

<table>
<thead>
<tr>
<th>County</th>
<th>Prevalence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>377.9</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>181.2</td>
</tr>
<tr>
<td>Moore County</td>
<td>175.6</td>
</tr>
<tr>
<td>Richmond County</td>
<td>249.2</td>
</tr>
<tr>
<td>Total Area</td>
<td>310.8</td>
</tr>
<tr>
<td>NC</td>
<td>309.5</td>
</tr>
<tr>
<td>US</td>
<td>340.4</td>
</tr>
</tbody>
</table>


Notes: This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.
• By race and ethnicity, HIV/AIDS prevalence in the Total Area is particularly high among non-Hispanic Blacks, although to a lesser degree than found statewide or nationally.

**HIV Prevalence Rate by Race/Ethnicity**

(Prevalence Rate of HIV per 100,000 Population, 2010)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>85.1</td>
<td>120.0</td>
<td>180.2</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>782.5</td>
<td>969.3</td>
<td>1,235.5</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>255.4</td>
<td>260.6</td>
<td>464.1</td>
</tr>
<tr>
<td>All Races/Ethnicities</td>
<td>249.2</td>
<td>309.5</td>
<td>340.4</td>
</tr>
</tbody>
</table>

**Sources:**
- Retrieved July 2015 from Community Commons at http://www.chna.org

**Notes:**
- This indicator is relevant because HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.
Sexually Transmitted Diseases

About Sexually Transmitted Diseases

STDs refer to more than 25 infectious organisms that are transmitted primarily through sexual activity. Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as: reproductive health problems; fetal and perinatal health problems; cancer; and facilitation of the sexual transmission of HIV infection.

Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the US. Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. Several factors contribute to the spread of STDs.

Biological Factors. STDs are acquired during unprotected sex with an infected partner. Biological factors that affect the spread of STDs include:

- **Asymptomatic nature of STDs.** The majority of STDs either do not produce any symptoms or signs, or they produce symptoms so mild that they are unnoticed; consequently, many infected persons do not know that they need medical care.
- **Gender disparities.** Women suffer more frequent and more serious STD complications than men do. Among the most serious STD complications are pelvic inflammatory disease, ectopic pregnancy (pregnancy outside of the uterus), infertility, and chronic pelvic pain.
- **Age disparities.** Compared to older adults, sexually active adolescents ages 15 to 19 and young adults ages 20 to 24 are at higher risk for getting STDs.
- **Lag time between infection and complications.** Often, a long interval, sometimes years, occurs between acquiring an STD and recognizing a clinically significant health problem.

Social, Economic and Behavioral Factors. The spread of STDs is directly affected by social, economic, and behavioral factors. Such factors may cause serious obstacles to STD prevention due to their influence on social and sexual networks, access to and provision of care, willingness to seek care, and social norms regarding sex and sexuality. Among certain vulnerable populations, historical experience with segregation and discrimination exacerbates these factors. Social, economic, and behavioral factors that affect the spread of STDs include: racial and ethnic disparities; poverty and marginalization; access to healthcare; substance abuse; sexuality and secrecy (stigma and discomfort discussing sex); and sexual networks (persons “linked” by sequential or concurrent sexual partners).

- Healthy People 2020 (www.healthypeople.gov)

Chlamydia & Gonorrhea

In 2012, the chlamydia incidence rate in the Total Area was 399.2 cases per 100,000 population.

- Notably lower than the North Carolina incidence rate.
- Notably lower than the national incidence rate.
- Higher in Hoke and Richmond counties.
**Chlamydia Incidence**
*(2012 Annual Average Cases per 100,000 Population)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Montgomery</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002-2004</td>
<td>299.2</td>
<td>311.5</td>
<td>326.6</td>
<td>341.4</td>
<td>300.6</td>
<td>341.4</td>
<td>341.4</td>
</tr>
<tr>
<td>2003-2005</td>
<td>276.6</td>
<td>339.1</td>
<td>320.5</td>
<td>279.1</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
</tr>
<tr>
<td>2004-2006</td>
<td>324.7</td>
<td>359.1</td>
<td>370.5</td>
<td>300.6</td>
<td>341.4</td>
<td>341.4</td>
<td>341.4</td>
</tr>
<tr>
<td>2005-2007</td>
<td>270.5</td>
<td>379.6</td>
<td>337.8</td>
<td>279.1</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
</tr>
<tr>
<td>2006-2008</td>
<td>300.6</td>
<td>337.8</td>
<td>406.8</td>
<td>304.3</td>
<td>341.4</td>
<td>341.4</td>
<td>341.4</td>
</tr>
<tr>
<td>2007-2009</td>
<td>341.4</td>
<td>406.8</td>
<td>437.5</td>
<td>341.4</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
</tr>
<tr>
<td>2008-2010</td>
<td>279.1</td>
<td>437.5</td>
<td>441.0</td>
<td>341.4</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
</tr>
<tr>
<td>2009-2011</td>
<td>304.3</td>
<td>441.0</td>
<td>574.9</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
<td>304.3</td>
</tr>
<tr>
<td>2010-2012</td>
<td>409.6</td>
<td>574.9</td>
<td>454.1</td>
<td>409.6</td>
<td>547.9</td>
<td>574.9</td>
<td>574.9</td>
</tr>
</tbody>
</table>

**Notes:**
- Rates are annual average new cases per 100,000 population.

**TREND:** There is no clear trend of chlamydia incidence in the Total Area, but overall, it has trended upward since 2003.
The gonorrhea incidence rate in the Total Area was 115.1 cases per 100,000 population in 2012.

- Lower than the North Carolina incidence rate.
- Higher than the national incidence rate.
- Considerably higher in Hoke County; favorably low in Montgomery and Moore counties.

**Gonorrhea Incidence**
(2012 Annual Average Cases per 100,000 Population)

Overall, gonorrhea incidence has decreased since 2003, but not in a reliable pattern.

**Gonorrhea Incidence**
(Annual Average Cases per 100,000 Population)
Births
Birth Outcomes & Risks

Low-Weight Births

A total of 8.9% of 2006-2012 Total Area births were low-weight.

- Comparable to the North Carolina proportion.
- Worse than the national proportion.
- Fails to satisfy the Healthy People 2020 target (7.8% or lower).
- Higher in Richmond County; lower in Moore County.

Low-Weight Births
(Percent of Live Births, 2006-2012)
Healthy People 2020 Target = 7.8% or Lower

<table>
<thead>
<tr>
<th>County</th>
<th>Low-Weight Births (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>9.1%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>8.4%</td>
</tr>
<tr>
<td>Moore County</td>
<td>8.0%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>10.3%</td>
</tr>
<tr>
<td>Total Area</td>
<td>8.9%</td>
</tr>
<tr>
<td>NC</td>
<td>9.1%</td>
</tr>
<tr>
<td>US</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Source:

Note:
This indicator reports the percentage of total births that are low birth weight (Under 2500g). This indicator is relevant because low birth weight infants are at high risk for health problems. This indicator can also highlight the existence of health disparities.

- TREND: The proportion of low-weight births has stayed constant over the past decade; the same can be said for both North Carolina and the US.
Low-Weight Births
(Percent of Live Births)
Healthy People 2020 Target = 7.8% or Lower

Sources:

Note:
- Numbers are a percentage of all live births within each population.
- Defined as an infant born weighing less than 5.5 pounds (2,500 grams) regardless of gestational age.

Infant Mortality
Between 2011 and 2013, there was an annual average of 7.3 infant deaths per 1,000 live births.

- Nearly identical to the North Carolina rate.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target of 6.0 per 1,000 live births.
- Highest in Richmond County; particularly low in Montgomery County.

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Infant deaths include deaths of children under 1 year old.
- This indicator is relevant because high rates of infant mortality indicate the existence of broader issues pertaining to access to care and maternal and child health.
TREND: The infant mortality rate of the Total Area has trended downward since 2005; North Carolina and national rates have decreased as well, but with less variation.

### Infant Mortality Rate
(Annual Average Infant Deaths per 1,000 Live Births)
Healthy People 2020 Target = 6.0 or Lower

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>9.1</td>
<td>8.7</td>
<td>7.3</td>
<td>8.1</td>
<td>6.7</td>
<td>7.4</td>
<td>7.8</td>
<td>7.3</td>
</tr>
<tr>
<td>NC</td>
<td>8.8</td>
<td>8.7</td>
<td>8.5</td>
<td>8.3</td>
<td>7.8</td>
<td>7.4</td>
<td>7.2</td>
<td>7.2</td>
</tr>
<tr>
<td>US</td>
<td>7.1</td>
<td>7.1</td>
<td>7.0</td>
<td>6.8</td>
<td>6.5</td>
<td>6.3</td>
<td>6.1</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.
- Centers for Disease Control and Prevention, National Center for Health Statistics.

Notes:
- Rates are three-year averages of deaths of children under 1 year old per 1,000 live births.
Family Planning

About Family Planning

Family planning is one of the 10 great public health achievements of the 20th century. The availability of family planning services allows individuals to achieve desired birth spacing and family size and contributes to improved health outcomes for infants, children, and women. Family planning services include contraceptive and broader reproductive health services (patient education and counseling), breast and pelvic examinations, breast and cervical cancer screening, sexually transmitted infection (STI) and HIV prevention education/counseling/testing/referral, and pregnancy diagnosis and counseling. For many women, a family planning clinic is their entry point into the healthcare system and is considered to be their usual source of care. This is especially true for women with incomes below the poverty level, women who are uninsured, Hispanic women, and Black women.

Unintended pregnancies (those reported by women as being mistimed or unwanted) are associated with many negative health and economic outcomes. For women, negative outcomes associated with unintended pregnancy include:

- Delays in initiating prenatal care
- Reduced likelihood of breastfeeding
- Poor maternal mental health
- Lower mother-child relationship quality
- Increased risk of physical violence during pregnancy

Children born as a result of an unintended pregnancy are more likely to experience poor mental and physical health during childhood and poor educational and behavioral outcomes.

- Healthy People 2020 (www.healthypeople.gov)

Births to Teen Mothers

About Teen Births

The negative outcomes associated with unintended pregnancies are compounded for adolescents. Teen mothers:

- Are less likely to graduate from high school or attain a GED by the time they reach age 30.
- Earn an average of approximately $3,500 less per year, when compared with those who delay childbearing.
- Receive nearly twice as much Federal aid for nearly twice as long.

Similarly, early fatherhood is associated with lower educational attainment and lower income. Children of teen parents are more likely to have lower cognitive attainment and exhibit more behavior problems. Sons of teen mothers are more likely to be incarcerated, and daughters are more likely to become adolescent mothers.

- Healthy People 2020 (www.healthypeople.gov)

Between 2006 and 2012, there was an annual average of 57.0 births to women age 15-19 per 1,000 population in that age group.

- Higher than the North Carolina proportion.
- Higher than the national proportion.
- Highest in Richmond County; lowest in Moore County.
Teen Birth Rate
(Births to Women Age 15-19 Per 1,000 Female Population Age 15-19, 2006-2012)

By race and ethnicity, Hispanics/Latinas exhibit the highest teen birth rate in the Total Area (as is also found statewide and nationally), followed by non-Hispanic Blacks.
• TREND: This percentage has gradually decreased in the Total Area since 2002, mirroring the state and national trends.

**Births to Teen Mothers**
**(Percentage of Live Births)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>64.7%</td>
<td>62.5%</td>
<td>61.1%</td>
<td>60.1%</td>
<td>57.0%</td>
</tr>
<tr>
<td>NC</td>
<td>47.9%</td>
<td>46.9%</td>
<td>45.6%</td>
<td>43.8%</td>
<td>41.7%</td>
</tr>
<tr>
<td>US</td>
<td>41.0%</td>
<td>40.3%</td>
<td>39.3%</td>
<td>38.0%</td>
<td>36.6%</td>
</tr>
</tbody>
</table>


Note: • Numbers are a percentage of all live births within each population.
Modifiable Health Risks
Actual Causes Of Death

About Contributors to Mortality

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.


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.

Sources:  
- "Actual Causes of Death in the United States" (Ali H. Mokdad, PhD; James S. Marks, MD, MPH; Donna F. Stroup, PhD, MSc; Julie L. Gerberding, MD, MPH.) JAMA. 291 (2000) 1238-1245.
<table>
<thead>
<tr>
<th>Leading Causes of Death</th>
<th>Underlying Risk Factors (Actual Causes of Death)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular Disease</td>
<td>Tobacco use, Elevated serum cholesterol, High blood pressure</td>
</tr>
<tr>
<td></td>
<td>Obesity, Diabetes, Sedentary lifestyle</td>
</tr>
<tr>
<td>Cancer</td>
<td>Tobacco use, Improper diet, Alcohol</td>
</tr>
<tr>
<td></td>
<td>Occupational/environmental exposures</td>
</tr>
<tr>
<td>Cerebrovascular Disease</td>
<td>High blood pressure, Tobacco use</td>
</tr>
<tr>
<td></td>
<td>Elevated serum cholesterol</td>
</tr>
<tr>
<td>Accidental Injuries</td>
<td>Safety belt noncompliance, Alcohol/substance abuse, Reckless driving</td>
</tr>
<tr>
<td></td>
<td>Occupational hazards, Stress/fatigue</td>
</tr>
<tr>
<td>Chronic Lung Disease</td>
<td>Tobacco use</td>
</tr>
<tr>
<td></td>
<td>Occupational/environmental exposures</td>
</tr>
</tbody>
</table>
Nutrition

**About Healthful Diet & Healthy Weight**

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)
Daily Recommendation of Fruits/Vegetables

FRUITS

More than 45.0% of Total Area adults report generally eating no fruit (15.4%) or less than one serving (30.9%) of fruit per day.

- Another 26.9% of survey respondents eat on average one daily serving of fresh, frozen or canned fruit.

On the other hand, 26.9% of Total Area adults report eating an average of two or more servings of fruits per day.

- Lowest in Richmond County.
- TREND: Fruit consumption, by this measure, is similar to the 2011 rate, but has decreased significantly since 2007.
Consume Two or More Servings of Fresh, Frozen or Canned Fruit Per Day

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 106]
Notes: Asked of all respondents.

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

Those who are less likely to eat two or more servings of fresh, frozen or canned fruit on an average day include:

- Men.
- Adults age 40-64 when compared to seniors (65+).
- Very low income residents (positive correlation with income).

Consume Two or More Servings of Fresh, Frozen or Canned Fruit Per Day (Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 106]
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. “Very Low Income” includes households living below the federal poverty level; “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 two in five of Total Area adults report generally eating no vegetables (13.4%) or less than one serving (28.7%) of vegetables on an average day.

- Another 29.7% 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, 2015)

<table>
<thead>
<tr>
<th>Servings</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>13.4%</td>
</tr>
<tr>
<td>Less Than One</td>
<td>28.7%</td>
</tr>
<tr>
<td>One</td>
<td>29.7%</td>
</tr>
<tr>
<td>Two</td>
<td>12.9%</td>
</tr>
<tr>
<td>Three/More</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

On the other hand, 15.3% of Total Area adults report generally eating three or more servings of vegetables per day.

- Similar by county.
- TREND: Consumption, by this measure, has increased since 2011, but remains significantly lower than what was found in 2007.

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 107]

Notes:
- Asked of all respondents.
Consume Three or More Servings of Raw, Fresh, Frozen or Canned Vegetables Per Day

(Total Area, 2015)

How many times per day do you eat whole grain breads including toast, rolls and sandwiches?
ACCESS TO FRESH PRODUCE

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 (94.7%) was for grocery or super stores such as Walmart, followed by farmer’s markets or permanent farm stands (mentioned by 63.8%).

- Other sources for fresh produce were used less often in the past year: corner/convenience/gas stations (used by 14.2% of respondents for fresh produce) and church/community organizations or food banks/pantries (10.9%).

Sources for Fresh Fruits/Vegetables in the Past Year (Total Area, 2015)

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery/Superstore (ie Walmart)</td>
<td>94.7%</td>
</tr>
<tr>
<td>Farmer’s Market/Permanent Farm Stand</td>
<td>63.8%</td>
</tr>
<tr>
<td>Corner/Convenience/Gas Station</td>
<td>14.2%</td>
</tr>
<tr>
<td>Food Bank/Pantry or Church/Community Organization</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 109-112]
Notes: Asked of all respondents.

Low Food Access (Food Deserts)

US Department of Agriculture data show that 24.1% of the Total Area population (representing approximately 50,482 residents) have low food access or live in a “food desert,” meaning that they do not live near a supermarket or large grocery store.

- Comparable to statewide findings.
- Comparable to national findings.
- Favorably low in Hoke and Montgomery counties.
Population With Low Food Access
(Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2010)

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>17.0%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>15.1%</td>
</tr>
<tr>
<td>Moore County</td>
<td>32.2%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>21.2%</td>
</tr>
<tr>
<td>Total Area</td>
<td>24.1%</td>
</tr>
<tr>
<td>NC</td>
<td>24.8%</td>
</tr>
<tr>
<td>US</td>
<td>23.6%</td>
</tr>
</tbody>
</table>

50,482 individuals have low food access.

Notes:
- The following map provides an illustration of food deserts by census tract. Note the large share of residents with limited food access in the southern portion of Moore County.

Map Legend:
- Population with Limited Food Access, Percent by Tract, FARA 2010
  - Over 50.0%
  - 20.1 - 50.0%
  - 5.1 - 20.0%
  - Under 5.1%
  - No Low Food Access

Sources:
- This indicator reports the percentage of the population living in census tracts designated as food deserts. A food desert is defined as low-income areas where a significant number or share of residents is far from a supermarket, where “far” is more than 1 mile in urban areas and more than 10 miles in rural areas. This indicator is relevant because it highlights populations and geographies facing food insecurity.
Whole Grains

More than one-fifth (21.8%) of Total Area adults do not eat any whole grains (including whole wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain and bran breads), and a total of 29.8% eat less than one serving on an average day.

- Another 26.7% of survey respondents average one daily serving of whole grains.

On the other hand, 21.4% of Total Area adults report generally eating two or more servings of whole grains per day.

- Higher in Montgomery County; lower in Richmond County.
- Whole grain consumption has decreased significantly since 2007, but the rate of decrease seems to have slowed some in the past four years.

Daily Servings of Whole Grain Breads
(Total Area Adults, 2015)

- None 21.8%
- Less Than One 29.8%
- One 26.7%
- Two 10.5%
- Three/More 10.9%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 108]
Notes: Asked of all respondents.
In this case, the term “whole grain breads” includes whole wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain and bran breads.
Consume Two or More Servings of Whole Grain Bread Per Day

- Adults age 40 to 64 are less likely to average two or more servings of daily whole grains.

Consume Two or More Servings of Whole Grain Bread Per Day
(Total Area, 2015)

- [22.6% Men, 20.4% Women, 24.6% 18 to 39, 17.3% 40 to 64, 23.5% 65+, 25.3% Very Low Income, 21.3% Low Income, 21.3% Mid/High Income, 21.1% White, 18.5% Black, 21.4% Total Area]

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 215]
Notes: 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. “Very Low Income” includes households living below the federal poverty level; “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 42.6% 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, 2015)

![Pie chart](image)

On the other hand, 57.4% of Total Area adults had at least one sugar-sweetened beverage to drink on the day before the survey was conducted.

- Lower in Moore County.
- TREND: Statistically unchanged over time.

Consumed at Least One Sugar-Sweetened Beverage Yesterday

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>66.9%</td>
<td>67.9%</td>
<td>47.3%</td>
<td>63.7%</td>
<td>57.2%</td>
</tr>
<tr>
<td>2015</td>
<td>66.9%</td>
<td>67.9%</td>
<td>47.3%</td>
<td>63.7%</td>
<td>57.4%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 217]
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.
Total Area adults more likely to have had at least one sugar-sweetened beverage on the day preceding the survey include:

- Men.
- Younger adults (note the negative correlation with age).
- Lower-income adults (note the negative correlation with income).
- Blacks.

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

(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.6%</td>
<td>54.6%</td>
<td>68.8%</td>
<td>55.6%</td>
<td>44.1%</td>
<td>66.4%</td>
<td>61.8%</td>
<td>54.2%</td>
<td>51.7%</td>
<td>68.5%</td>
<td>57.4%</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 217]

**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. “Very Low Income” includes households living below the federal poverty level; “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.

**Meals Prepared at Home**

The majority (87.6%) of Total Area adults eats meals prepared at home on at least four days per week.

- In contrast, 12.4% 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, 2015)

Four/More Days 87.6%
Two Days 3.9%
Three Days 6.6%
One Day/Less 1.9%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 113]
Notes: Asked of all respondents.

- Notably high among Richmond County adults.

Eat Meals at Home Fewer Than Four Days Per Week

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area 2011</th>
<th>Total Area 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>12.9%</td>
<td>9.3%</td>
<td>9.5%</td>
<td>19.7%</td>
<td>12.3%</td>
<td>12.4%</td>
</tr>
<tr>
<td>2015</td>
<td>12.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 216]
Notes: Asked of all respondents.
- Viewed by demographics, Total Area men and Blacks are more likely to eat out.

**Eat Meals at Home Fewer Than Four Days Per Week**
*(Total Area, 2015)*

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.5%</td>
<td>10.4%</td>
<td>11.7%</td>
<td>13.0%</td>
<td>11.9%</td>
<td>11.4%</td>
<td>14.1%</td>
<td>13.7%</td>
<td>9.9%</td>
<td>18.0%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 216]

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. “Very Low Income” includes households living below the federal poverty level; “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.
Physical Activity

About Physical Activity

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); and 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); and 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)
Activity Level

LEISURE-TIME PHYSICAL ACTIVITY

A total of 26.9% of Total Area adults report no leisure-time physical activity in the past month.

- Similar to the statewide findings.
- Less favorable than national findings.
- Satisfies the Healthy People 2020 target (32.6% or lower).
- Less favorable in Richmond County; more favorable in Moore County.
- TREND: Without showing much variation since 2003, lack of leisure-time physical activity has stayed significantly lower than the 1999 rate.

No Leisure-Time Physical Activity in the Past Month

Healthy People 2020 Target = 32.6% or Lower

Lack of leisure-time physical activity in the area is higher among:

- Women.
- Lower-income residents (note the negative correlation with income).
- Blacks.
**No Leisure-Time Physical Activity in the Past Month**  
*(Total Area, 2015)*  
*Healthy People 2020 Target = 32.6% or Lower*

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.0%</td>
<td>29.4%</td>
<td>22.5%</td>
<td>29.7%</td>
<td>29.4%</td>
<td>47.2%</td>
<td>33.1%</td>
<td>17.1%</td>
<td>26.1%</td>
<td>33.1%</td>
<td>26.9%</td>
</tr>
</tbody>
</table>

**Sources:**  
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 115]  

**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. “Very Low Income” includes households living below the federal poverty level; “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 57.8% of Total Area adults are considered to be sedentary, based on reported physical activity in the past month.

- Highest in Montgomery County; lowest in Moore County.
- TREND: Denotes a significant decrease (improvement) since 1999.

**Sedentary**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>60.3%</td>
<td>56.4%</td>
<td>59.4%</td>
<td>60.2%</td>
<td>65.1%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>66.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>52.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>61.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>57.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**  
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 218]

**Notes:**  
- Asked of all respondents.  
- In this case, the term “sedentary” refers to exercising fewer than 3 times per week for at least 20 minutes per occasion.  
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377, and 28386).
Those more likely to be sedentary include lower income residents (note the negative correlation with income), and Blacks.

### Sedentary
#### (Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>55.3%</td>
<td>60.0%</td>
<td>54.6%</td>
<td>59.8%</td>
<td>59.2%</td>
<td>75.1%</td>
<td>66.6%</td>
<td>45.5%</td>
<td>55.1%</td>
<td>67.7%</td>
<td>57.8%</td>
<td></td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 218]
Notes: Asked of all respondents.

Access to Physical Activity

### AMENITIES WITHIN WALKING DISTANCE

Just one-third (33.4%) of survey respondents indicates that there is a playground or park located within walking distance of their home.

- Statistically similar by county.
- TREND: Statistically unchanged since 2011.

### Have a Park or Playground Within Walking Distance of Home

<table>
<thead>
<tr>
<th>Category</th>
<th>2011</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>32.5%</td>
<td>33.4%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 121]
Notes: Asked of all respondents.
A little over one-fifth (21.2%) of survey respondents can purchase healthy foods within walking distance of their home.

- Higher in Hoke County; lower in Moore County.
- TREND: Over the past four years, walking access to healthy foods has remained statistically constant.

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

<table>
<thead>
<tr>
<th>Area</th>
<th>2011</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>27.4%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>20.7%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Moore County</td>
<td>18.3%</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>22.5%</td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 122]
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 (90.1%) was for having a safe environment for walking during the daytime, followed by safety while walking at night (57.6%).

- Other amenities present in the neighborhoods of Total Area respondents include adequate lighting (reported by 46.6% of respondents).
- Amenities mentioned less often include safe crosswalks (31.4%) and good sidewalks (19.5%).
Neighborhood Attributes Conducive to Physical Activity (Total Area, 2015)

- Is Safe For Walking (Daytime) 90.1%
- Is Safe For Walking (Night) 57.6%
- Has Adequate Lighting 46.6%
- Has Safe Crosswalks 31.4%
- Has Good Sidewalks 19.5%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 123-127]
Notes: Asked of all respondents.

ACCESS TO RECREATION & FITNESS FACILITIES

In 2012, there were 7.6 recreation/fitness facilities for every 100,000 population in the Total Area.

- Below what is found statewide.
- Below what is found nationally.
- Much lower in Hoke and Montgomery counties.

Population With Recreation & Fitness Facility Access (Number of Recreation & Fitness Facilities per 100,000 Population, 2012)

- Hoke County: 2.1
- Montgomery County: 3.6
- Moore County: 10.2
- Richmond County: 10.7
- Total Area: 7.6
- NC: 10.1
- US: 9.4

Sources: US Census Bureau, County Business Patterns: 2012. Additional data analysis by CARES.
Notes: Recreation and fitness facilities are defined by North American Industry Classification System (NAICS) Code 713940, which include Establishments engaged in operating facilities which offer “exercise and other active physical fitness conditioning or recreational sports activities.” Examples include athletic clubs, gymnasiums, dance centers, tennis clubs, and swimming pools. This indicator is relevant because access to recreation and fitness facilities encourages physical activity and other healthy behaviors.
Weight Status

About Overweight & Obesity

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: \( \text{[weight (pounds)/height squared (inches²)] x 703.} \)

In this report, overweight is defined as a BMI of 25.0 to 29.9 kg/m² and obesity as a BMI ≥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 ≥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.


<table>
<thead>
<tr>
<th>Classification of Overweight and Obesity by BMI</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, 24.8% of Total Area adults are at a healthy weight.

- Less than statewide findings.
- Less than the national prevalence.
- Fails to satisfy the Healthy People 2020 target (33.9% or higher).
- Least favorable in Richmond County.
- TREND: Marks a statistically significant decrease over the past sixteen years.

Healthy Weight
(Percent of Adults With a Body Mass Index Between 18.5 and 24.9)
Healthy People 2020 Target = 33.9% or Higher

Source:
PRC Community Health Surveys, Professional Research Consultants, Inc.
2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Based on reported heights and weights, asked 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.
- The definition of overweight is having a BMI ≥25.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

OVERWEIGHT STATUS
More than 7 in 10 of Total Area adults (73.5%) are overweight.

- Higher than the North Carolina prevalence.
- Higher than the US overweight prevalence.
- Unfavorably high in Richmond County.
- TREND: Since 1999, the Total Area overweight prevalence has increased.
Prevalence of Total Overweight
(Percent of Adults With a 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>76.5%</td>
<td>70.1%</td>
<td>70.5%</td>
<td>79.0%</td>
<td>73.5%</td>
<td>66.1%</td>
<td>63.1%</td>
</tr>
<tr>
<td>2003</td>
<td>62.9%</td>
<td>67.9%</td>
<td>69.1%</td>
<td>70.0%</td>
<td>73.5%</td>
<td>66.1%</td>
<td>63.1%</td>
</tr>
<tr>
<td>2007</td>
<td>66.1%</td>
<td>69.9%</td>
<td>69.1%</td>
<td>70.0%</td>
<td>73.5%</td>
<td>66.1%</td>
<td>63.1%</td>
</tr>
<tr>
<td>2011</td>
<td>70.0%</td>
<td>73.5%</td>
<td>70.0%</td>
<td>71.3%</td>
<td>73.5%</td>
<td>66.1%</td>
<td>63.1%</td>
</tr>
<tr>
<td>2015</td>
<td>73.5%</td>
<td>70.1%</td>
<td>70.0%</td>
<td>71.3%</td>
<td>73.5%</td>
<td>66.1%</td>
<td>63.1%</td>
</tr>
</tbody>
</table>

Notes:
- Based on reported heights and weights, asked 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.
- The definition for obesity is having 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).

Further, 40.1% of Total Area adults are obese.
- Higher than North Carolina findings.
- Higher than US findings.
- Fails to satisfy the Healthy People 2020 target (30.5% or lower).
- Higher in Hoke and Richmond counties; lower in Moore County.
- TREND: Denotes a statistically significant increase in obesity since 1999.

Prevalence of Obesity
(Percent of Adults With a Body Mass Index of 30.0 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>24.7%</td>
<td>33.7%</td>
<td>32.5%</td>
<td>40.1%</td>
<td>38.2%</td>
<td>29.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>2003</td>
<td>29.5%</td>
<td>32.5%</td>
<td>31.2%</td>
<td>38.8%</td>
<td>36.3%</td>
<td>29.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>2007</td>
<td>26.1%</td>
<td>31.2%</td>
<td>30.0%</td>
<td>37.5%</td>
<td>35.0%</td>
<td>29.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>2011</td>
<td>29.5%</td>
<td>32.5%</td>
<td>31.2%</td>
<td>38.8%</td>
<td>36.3%</td>
<td>29.4%</td>
<td>29.0%</td>
</tr>
<tr>
<td>2015</td>
<td>30.1%</td>
<td>32.5%</td>
<td>31.2%</td>
<td>38.8%</td>
<td>36.3%</td>
<td>29.4%</td>
<td>29.0%</td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 183]
- 2013 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 25.0.
- The definition for obesity is having 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).
Obesity is notably more prevalent among:

- Adults between the ages of 18 and 64.
- Blacks.

### Prevalence of Obesity

(Percent of Adults With a BMI of 30.0 or Higher; Total Area, 2015)

**Healthy People 2020 Target = 30.5% 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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>39.1%</td>
<td>41.1%</td>
<td>42.0%</td>
<td>44.8%</td>
<td>29.0%</td>
<td>41.1%</td>
<td>41.8%</td>
<td>37.4%</td>
<td>36.4%</td>
<td>53.4%</td>
<td>40.1%</td>
</tr>
<tr>
<td>20%</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>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>60%</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>80%</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>100%</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:**
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 183]

**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. “Very Low Income” includes households living below the federal poverty level; “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.

### RELATIONSHIP OF OVERWEIGHT WITH OTHER HEALTH ISSUES

Overweight and obese adults are more likely to report a number of adverse health conditions. Among these are:

- Hypertension (high blood pressure).
- High cholesterol.
- Chronic depression.
- Activity limitations.
- “Fair” or “poor” physical health.
- Diabetes.
- Asthma.
- Chronic obstructive pulmonary disease (COPD).
- Kidney disease.
Relationship of Overweight With Other Health Issues
(By Weight Classification; Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 9, 46, 50, 51, 130, 135, 157, 158, 168, 183]

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

Weight Management

HEALTH ADVICE

A total of 34.7% of adults have been advised to control their weight by a doctor, nurse or other health professional.

- Note that 43.3% of overweight/obese adults have been told by a health professional that they need to control their weight (while over half have not).
- When looking at total overweight adults, weight counseling is higher in Hoke County and lower in Moore County (not shown).
- TREND: Among overweight adults, statistically unchanged since 2007.

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

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Items 120, 185, 186]

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

About Maintaining a Healthy Weight

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)

A total of 40.9% 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.

- Similar to national findings.
- No difference by county (not shown).
- TREND: Has significantly increased among overweight adults since 2007.

Trying to Lose Weight by Both Modifying Diet and Increasing Physical Activity
(Among Overweight or Obese Respondents)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>32.4%</td>
<td>67.6%</td>
</tr>
</tbody>
</table>

Total Area 2007

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.9%</td>
<td>59.1%</td>
</tr>
</tbody>
</table>

Total Area 2015

Sources:  
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 119]  
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:  
- Reflects respondents who are overweight or obese based on reported heights and weights.
Childhood Overweight & Obesity

About Weight Status in Children & Teens

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, 39.6% of Total Area children age 5 to 17 are overweight or obese (≥85th percentile).

- Statistically similar to that found nationally.
- Higher in Richmond County; much lower in Hoke County.
- TREND: Statistically unchanged since 2011.
- Statistically higher among boys than girls.
- Statistically similar by child’s age.

Child Total Overweight Prevalence
(Children Age 5-17 Who Are Overweight/Obese; BMI in the 85th Percentile or Higher)

<table>
<thead>
<tr>
<th>County</th>
<th>5-12</th>
<th>13-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>16.4%</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>36.5%</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>64.5%</td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>39.6%</td>
<td>31.5%</td>
</tr>
<tr>
<td>US</td>
<td>35.4%</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 187]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children age 5-17 at home.
- Overweight among children is determined by children’s Body Mass Index status at or above the 85th percentile of US growth charts by gender and age.
- *The sample size is too small to be reliable.
Further, 24.1% of Total Area children age 5 to 17 are obese (≥95th percentile).

- Less favorable than the national percentage.
- Fails to satisfy the Healthy People 2020 target (14.5% or lower for children age 2-19).
- Higher in Richmond County; much lower in Hoke County.
- TREND: Statistically unchanged since 2011.
- By gender, boys are more likely to be obese than girls.
- Total Area children age 5-12 have a higher obesity prevalence than Total Area teens.

**Child Obesity Prevalence**
(Children Age 5-17 Who Are Obese; BMI in the 95th Percentile or Higher)

**Healthy People 2020 Target = 14.5% or Lower**

Sources:  
- PRC Community Health Surveys, Professional Research Consultants, Inc.  [Item 187]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:  
- Obesity among children is determined by children’s Body Mass Index status equal to or above the 95th percentile of US growth charts by gender and age.
- *The sample size is too small to be reliable.*
Substance Abuse

About Substance Abuse

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

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)

Age-Adjusted Cirrhosis/Liver Disease Deaths

Between 2011 and 2013, there was an annual average age-adjusted cirrhosis/liver disease mortality rate of 11.8 deaths per 100,000 population in the Total Area.

- Worse than the statewide rate.
- Worse than the national rate.
- Fails to satisfy the Healthy People 2020 target (8.2 or lower).
- Higher in Richmond County (not all county-level data available).
**Cirrhosis/Liver Disease: Age-Adjusted Mortality**
(2011-2013 Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 8.2 or Lower

**Moore County**
10.4

**Richmond County**
15.5

**Total Area**
11.8

**NC**
9.9

**US**
9.9

**Sources:**
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

**Notes:**
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

- **TREND:** The mortality rate has fluctuated widely in the region, showing no clear trend; however, it is currently at the higher end of what we have seen in the past ten years. Statewide and nationwide, rates have increased slightly.

**Cirrhosis/Liver Disease: Age-Adjusted Mortality Trends**
(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 8.2 or Lower

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>9.7</td>
<td>10.0</td>
<td>11.5</td>
<td>10.8</td>
<td>9.8</td>
<td>8.9</td>
<td>9.0</td>
<td>11.8</td>
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<tr>
<td>NC</td>
<td>8.6</td>
<td>8.7</td>
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<td>9.2</td>
<td>9.2</td>
<td>9.4</td>
<td>9.9</td>
</tr>
<tr>
<td>US</td>
<td>8.9</td>
<td>8.9</td>
<td>9.0</td>
<td>9.1</td>
<td>9.2</td>
<td>9.4</td>
<td>9.7</td>
<td>9.9</td>
</tr>
</tbody>
</table>

**Sources:**
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

**Notes:**
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
High-Risk Alcohol Use

CURRENT DRINKING

A total of 46.8% of area adults had at least one drink of alcohol in the past month (current drinkers).

- Statistically similar to the statewide proportion.
- More favorable than the national proportion.
- Highest in Moore County; statistically lower in Montgomery and Richmond counties.
- TREND: Shows a statistically significant increase since 1999.

Current Drinkers

Current drinking is more prevalent among:

- Men.
- Young adults age 18-39 (negative correlation with age).
- Adults with higher incomes.
- Whites.
HEAVY & BINGE DRINKING

A total of 8.0% of area adults are heavy drinkers (men reporting 2+ alcoholic drinks per day or women reporting 1+ alcoholic drink per day in the month preceding the interview); another 12.8% of Total Area adults are binge drinkers (men reporting 5+ alcoholic drinks or women reporting 4+ alcoholic drinks on any single occasion during the past month).

Heavy drinking in the Total Area:
- Higher than the statewide proportion.
- More favorable than the national proportion.
- Favorably low in Hoke County.

Binge drinking in the Total Area:
- Similar to North Carolina findings.
- Lower than the national findings.
- Satisfies the Healthy People 2020 target (24.4% or lower).
- Statistically similar by county.
- TREND: Despite decreasing since 2003, the binge drinking rate remains statistically higher than the 1999 rate (note, that the previous definition for binge drinking was five or more drinks, regardless of gender).
EXCESSIVE DRINKING

A total of 15.2% of area adults are excessive drinkers (heavy and/or binge drinkers).

- More favorable than the national proportion.
- Statistically comparable by county.
- Satisfies the Healthy People 2020 target (25.4% or lower).
Excessive drinking is more prevalent among men, young adults (18-39), and higher-income residents (positive correlation with income).

### Excessive Drinkers
(Total Area, 2015)
Healthy People 2020 Target = 25.4% or Lower

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>21.2%</td>
</tr>
<tr>
<td>Women</td>
<td>9.8%</td>
</tr>
<tr>
<td>18 to 39</td>
<td>21.1%</td>
</tr>
<tr>
<td>40 to 64</td>
<td>12.0%</td>
</tr>
<tr>
<td>65+</td>
<td>12.0%</td>
</tr>
<tr>
<td>Very Low Income</td>
<td>7.8%</td>
</tr>
<tr>
<td>Low Income</td>
<td>11.1%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>18.7%</td>
</tr>
<tr>
<td>White</td>
<td>15.9%</td>
</tr>
<tr>
<td>Black</td>
<td>12.7%</td>
</tr>
<tr>
<td>Total Area</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Sources:  
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [item 196]  

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. “Very Low Income” includes households living below the federal poverty level. “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.  
- Excessive drinking reflects the number of persons aged 18 years and over who drank more than two drinks per day on average (for men) or more than one drink per day on average (for women) OR who drank 5 or more drinks during a single occasion (for men) or 4 or more drinks during a single occasion (for women) during the past 30 days.

### PROFESSIONAL ADVICE TO REDUCE ALCOHOL CONSUMPTION

A total of 3.1% 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 Richmond County; highest in Moore County.
- TREND: Statistically higher than the 2003 prevalence.
Advised to Reduce Alcohol Consumption by a Healthcare Professional in the Past Year

- The prevalence is highest among heavy drinkers, as identified through the survey.

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

Age-Adjusted Drug-Induced Deaths

Between 2011 and 2013, there was an annual average age-adjusted drug-induced mortality rate of 14.9 deaths per 100,000 population in the Total Area.

- Less favorable than the statewide rate.
- Statistically higher than the national rate.
- Fails to satisfy the Healthy People 2020 target (11.3 or lower).
- Considerably higher in Richmond County (not all county-level data available).
Drug-Induced Deaths: Age-Adjusted Mortality
(2011-2013 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 11.3 or Lower

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.

• TREND: In 2007, the mortality rate merged with the lower state and national rates, but the three have recently increased, making the Total Area rate statistically similar to that found in 2005.

Drug-Induced Deaths: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 11.3 or Lower

Sources:
- CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted August 2015.

Notes:
- Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
- Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population.
Drug Use

PRESCRIPTION DRUG ABUSE

A total of 2.8% of Total Area adults acknowledge the abuse of a prescription medication by a member of their household in the past year (either sharing prescriptions or using a prescription not prescribed to them).

- Highest in Hoke County; lowest in Moore County.
- TREND: Statistically unchanged since 2011.

Prescription Drug Abuse
by Member of Household in the Past Year

Prescription drug abuse is more prevalent among households with younger residents below the age of 65 (note the negative correlation with age).
Prescription Drug Abuse by Member of Household in the Past Year
(Total Area, 2015)

In this case the term "prescription drug abuse" is a person sharing prescription medication with others or taking prescription medications which were not prescribed to them.

ILLEGAL DRUG USE
A total of 4.6% of Total Area adults acknowledge that a member of their household has used an illicit drug in the past month.

- No statistical difference by county.
- TREND: Marks a statistically significant increase over time.

Illegal Drug Use by Member of Household in the Past Year

In this case the term "illegal drug use" is a person using marijuana, cocaine, methamphetamine or any other street drug.

Note: As a self-reported measure – and because this indicator reflects potentially illegal behavior – it is reasonable to expect that it might be underreported, and that actual illegal drug use in the community is likely higher.
Illegal drug use in the household is more often reported by:

- Men.
- Adults under age 65 (note the negative correlation with age).
- Residents in the highest income breakout.
- Whites.

### Illegal Drug Use by Member of Household in the Past Year
(Total Area, 2015)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>4.6%</td>
</tr>
<tr>
<td>White</td>
<td>5.2%</td>
</tr>
<tr>
<td>Black</td>
<td>1.9%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>5.6%</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.5%</td>
</tr>
<tr>
<td>Very Low Income</td>
<td>5.2%</td>
</tr>
<tr>
<td>65+</td>
<td>0.6%</td>
</tr>
<tr>
<td>40 to 64</td>
<td>7.7%</td>
</tr>
<tr>
<td>18 to 39</td>
<td>4.3%</td>
</tr>
<tr>
<td>Women</td>
<td>3.3%</td>
</tr>
<tr>
<td>Men</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

**Sources:** 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 80]

**Notes:**
- 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. “Very Low Income” includes households living below the federal poverty level; “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 “illegal drug use” is a person using marijuana, cocaine, methamphetamine or any other street drug.
Alcohol & Drug Treatment
A total of 3.2% of Total Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Less favorable than national findings.
- Statistically similar by county.
- TREND: Statistically unchanged over time.

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

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 79]

2013 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

About Tobacco Use

Tobacco use is the single most preventable cause of death and disease in the United States. 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.

Cigarette Smoking

CIGARETTE SMOKING PREVALENCE

A total of 21.6% of Total Area adults currently smoke cigarettes, either regularly (15.3% every day) or occasionally (6.3% on some days).

Cigarette Smoking Prevalence (Total Area, 2015)

- Regular Smoker 15.3%
- Occasional Smoker 6.3%
- Former Smoker 28.3%
- Never Smoked 50.1%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 188]
Notes: Asked of all respondents.

- Similar to statewide findings.
- Higher than national findings.
- Fails to satisfy the Healthy People 2020 target (12% or lower).
- Least favorable in Richmond County; more favorable in Montgomery and Moore counties.
TREND: The current smoking percentage is statistically lower than that in 1999.

Current Smokers
Healthy People 2020 Target = 12.0% or Lower

Cigarette smoking is more prevalent among:

- Men.
- Adults under 65 (note the negative correlation with age).
- Lower-income residents (note the negative correlation with income).

Current Smokers
(Total Area, 2015)
Healthy People 2020 Target = 12.0% or Lower

Sources:
- PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 188]
- 2013 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Includes regular and occasional smokers (everyday or some days).
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Includes regular and occasional smokers (those who smoke cigarettes everyday or on some days).
Current and former smokers were then asked how long they have smoked in their total lifetimes (not including periods of cessation). A total of 71.1% of smokers have smoked for over 10 years, which includes 19.4% who have spent over 30 years smoking.

### Length of Time Spent as a Smoker
(Among Current and Former Smokers, Total Area, 2015)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1.0%</td>
</tr>
<tr>
<td>Less than 1 Year</td>
<td>2.2%</td>
</tr>
<tr>
<td>1 to 10 Years</td>
<td>25.8%</td>
</tr>
<tr>
<td>10.1 to 20 Years</td>
<td>30.8%</td>
</tr>
<tr>
<td>20.1 to 30 Years</td>
<td>20.9%</td>
</tr>
<tr>
<td>&gt; 30 Years</td>
<td>19.4%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 72]
Notes: Reflects Total Area current and former smokers.

### SMOKING CESSATION

**About Reducing Tobacco Use**

Preventing tobacco use and helping tobacco users quit can improve the health and quality of life for Americans of all ages. People who stop smoking greatly reduce their risk of disease and premature death. Benefits are greater for people who stop at earlier ages, but quitting tobacco use is beneficial at any age.

Many factors influence tobacco use, disease, and mortality. Risk factors include race/ethnicity, age, education, and socioeconomic status. Significant disparities in tobacco use exist geographically; such disparities typically result from differences among states in smoke-free protections, tobacco prices, and program funding for tobacco prevention.

- Healthy People 2020 (www.healthypeople.gov)

**Smoking Cessation Attempts**

A little over one-half of regular smokers (51.3%) went without smoking for one day or longer in the past year because they were trying to quit smoking.

- Statistically similar to the national percentage.
- Fails to satisfy the Healthy People 2020 target (80% or higher).
- TREND: In the wake of a peak that occurred in 2003, cessation attempts decreased and presently, the prevalence is statistically comparable to that found in 1999.
**Length of Time Since Quitting**

Among former smokers, 71.5% report that it has been more than five years since they quit smoking.

- Another 28.5% quit between one and five years ago.

**Length of Time Since Quitting Smoking**

(Total Area Former Smokers, 2015)

<table>
<thead>
<tr>
<th>Length of Time Since Quitting</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;5 Years</td>
<td>71.5%</td>
</tr>
<tr>
<td>1 to 5 Years</td>
<td>21.5%</td>
</tr>
<tr>
<td>6.1 to 12 Months</td>
<td>3.0%</td>
</tr>
<tr>
<td>6 Months/Less</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 73]

**Notes:**
- Asked of former smokers.
Method Used to Quit Smoking

Most former smokers (67.5%) quit “cold turkey.”

- Another 10.3% relied on some type of over-the-counter aide (such as a patch or gum), 6.1% used prescription medication in order to quit, and 5.5% reported using self-discipline.

Method Used to Quit Smoking
(Total Area Former Smokers, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 74]
Notes: Asked of former smokers.
Access to Health Services
Health Insurance Coverage

Perceived Importance of Health Insurance Coverage

Among Total Area respondents, the vast majority (90.7%) considers healthcare insurance coverage to be “very important.”

- Another 5.4% of respondents gave “somewhat important” responses.
- Just over one percent of survey respondents (1.2%) consider healthcare insurance coverage to be unimportant.

The perceived importance of insurance is highest in Hoke County; lowest in Moore County.

TREND: Since 1999, there has been a statistically significant decrease in the proportion of Total Area adults considering health insurance to be very important.

Perceived Importance of Healthcare Insurance Coverage (Total Area, 2015)

Perceive Healthcare Coverage to be “Very Important”

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 138]
Notes: Reflects the total sample of respondents.
Type of Healthcare Coverage
A total of 49.9% of Total Area adults age 18 to 64 report having healthcare coverage through private insurance. Another 35.8% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

Healthcare Insurance Coverage
(Among Adults Age 18-64; Total Area, 2015)

- Insured, Employer-Based: 39.9%
- Insured, Self-Purchase: 9.0%
- Medicaid: 11.7%
- Medicare: 8.8%
- VA/Military: 12.9%
- Medicaid & Medicare: 1.4%
- Other Gov't Coverage: 1.0%
- Insured, Unknown Type: 1.0%
- No Insurance/Self-Pay: 14.3%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc.
Notes: Reflects respondents age 18 to 64.

SUPPLEMENTAL COVERAGE
Among adults age 65 and older, 72.9% have other supplemental health insurance in addition to their Medicare coverage.

- Comparable to that reported among Medicare recipients nationwide.
- More favorable in Moore County; less favorable in Hoke County.
- TREND: Statistically similar to the proportion reported in 2007.
Have Supplemental Coverage in Addition to Medicare
(Among Adults 65+)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 143]
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Notes:
- Asked of all respondents age 65+.

<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>2007</td>
<td>52.5%</td>
<td>64.9%</td>
<td>81.1%</td>
<td>66.7%</td>
<td>72.9%</td>
<td>68.1%</td>
</tr>
<tr>
<td>2011</td>
<td>67.9%</td>
<td>67.9%</td>
<td>72.9%</td>
<td>66.7%</td>
<td>72.9%</td>
<td>68.1%</td>
</tr>
<tr>
<td>2015</td>
<td>73.9%</td>
<td>67.9%</td>
<td>72.9%</td>
<td>66.7%</td>
<td>72.9%</td>
<td>68.1%</td>
</tr>
</tbody>
</table>

Employer-Based Health Insurance

Among employed respondents in the Total Area, 69.2% report that their employer offers healthcare coverage.

- Statistically higher in Richmond County; lower in Moore County.
- TREND: Marks a statistically significant decrease over time.

Respondent’s Employer Offers Healthcare Coverage
(Among Employed Respondents)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 146]
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Notes:
- Excludes unemployed respondents, those who do not know if their employer offers coverage, and those who otherwise chose not to respond.

<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>67.0%</td>
<td>76.9%</td>
<td>63.8%</td>
<td>75.7%</td>
<td>69.2%</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>67.0%</td>
<td>76.9%</td>
<td>63.8%</td>
<td>75.7%</td>
<td>69.2%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>67.0%</td>
<td>76.9%</td>
<td>63.8%</td>
<td>75.7%</td>
<td>69.2%</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>67.0%</td>
<td>76.9%</td>
<td>63.8%</td>
<td>75.7%</td>
<td>69.2%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>67.0%</td>
<td>76.9%</td>
<td>63.8%</td>
<td>75.7%</td>
<td>69.2%</td>
<td></td>
</tr>
</tbody>
</table>
Among respondents with healthcare coverage through their own or someone else’s employer or union, 44.9% indicate that they alone have coverage, while 12.8% rely on coverage for themselves and a spouse and 42.3% 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-Based Insurance**
(Among Respondents With Insurance Through Their Own or Someone Else’s Employer/Union)

The median cost of coverage for those with insurance through their own or another’s employer or union is $200.

- Highest in Hoke County.
- TREND: Higher than the median response reported in 2011.
As seen in the following chart, the median monthly cost has increased by over 100% for “self and spouse” coverage (should be interpreted cautiously due to a sample size of less than 50).

While “self” coverage has seen only a slight increase in median monthly cost, the cost of “family” coverage has increased rather eminently.
Lack of Health Insurance Coverage
Among adults age 18 to 64, 14.3% report having no insurance coverage for healthcare expenses.

- More favorable than the state finding.
- Similar to the national finding.
- The Healthy People 2020 target is universal coverage (0% uninsured).
- Worst in Richmond County; better in Hoke and Montgomery counties.
- TREND: Notwithstanding an improvement in 2011, lack of healthcare insurance is statistically similar to 1999 findings.

Lack of Healthcare Insurance Coverage
(Among Adults Age 18-64)
Healthy People 2020 Target = 0.0% (Universal Coverage)

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

- Adults under age 40.
- Residents living at lower incomes (note the negative correlation with income).
- Blacks.
Lack of Healthcare Insurance Coverage
(Among Adults Age 18-64; Total Area, 2015)

Healthy People 2020 Target = 0.0% (Universal Coverage)

As might be expected, uninsured adults in the Total Area are less likely to receive routine care and preventive health screenings.

Preventive Healthcare
(By Insured Status; Total Area, 2015)

Among Total Area adults without healthcare coverage, one-half has gone without coverage for more than a year (50.4%).

On the other hand, all respondents reported having coverage at some point, 35.5% have been without coverage fewer than 6 months, and 14.2% have gone between 6 and 12 months without coverage.
Total Number of Months Without Coverage
(Total Area Adults Without Coverage, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 144]
Notes: Reflects those adults without current healthcare coverage.

RECENT LACK OF COVERAGE
Among currently insured adults in the Total Area, 7.9% report that they were without healthcare coverage at some point in the past year.

- Similar to US findings.
- TREND: Marks a statistically significant decrease in insurance instability.

Went Without Healthcare Insurance Coverage At Some Point in the Past Year
(Among Insured Adults)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 145]
Notes: Asked of all insured respondents.
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Among insured adults, those with Medicaid or another state program and those with self-purchased coverage are significantly more likely to have gone without healthcare insurance coverage at some point in the past year:

Went Without Healthcare Insurance Coverage At Some Point in the Past Year
(By Insurance Type)

<table>
<thead>
<tr>
<th>Insurance Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid/Other State Program</td>
<td>25.5%</td>
</tr>
<tr>
<td>Self Purchased</td>
<td>14.4%</td>
</tr>
<tr>
<td>VA/Military</td>
<td>5.6%</td>
</tr>
<tr>
<td>Employer-Based</td>
<td>5.9%</td>
</tr>
<tr>
<td>Medicare</td>
<td>3.9%</td>
</tr>
<tr>
<td>Overall</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 145]
2013 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: Asked of all insured respondents.
Difficulties Accessing Healthcare

About Access to Healthcare
Access to comprehensive, quality health care 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 health care system; 2) Accessing a health care location where needed services are provided; and 3) Finding a health care provider with whom the patient can communicate and trust.

- Healthy People 2020 (www.healthypeople.gov)

Perceived Ease of Obtaining Medical Care
Three-fifths of Total Area adults (60.2%) consider the ease with which they are able to obtain local medical services to be “excellent” or “very good.”

- Another 21.4% gave “good” ratings.

However, 18.4% of residents consider the ease of obtaining medical services to be “fair” or “poor.”

- Higher in Hoke and Richmond counties; lowest in Moore County.
- TREND: Statistically unchanged over time.

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 11]
Notes: Asked of all respondents.
The following residents are more critical of the ease of obtaining medical services:

- Men.
- Adults under age 65 and especially those under 40 (note the negative correlation with age).
- Residents with lower incomes (note the negative correlation with income).
- Blacks.
- Uninsured adults.

Ease of Obtaining Medical Care is “Fair” or “Poor” (Total Area, 2015)

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 11]
- 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. “Very Low Income” includes households living below the federal poverty level. “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.
Barriers to Healthcare Access

DIFFICULTIES ACCESSING PRESCRIPTION MEDICATIONS

A total of 17.4% of Total Area adults say that cost prevented them from obtaining a needed prescription medication at some point in the past year.

- Similar to the US prevalence.
- Highest in Richmond County; lowest in Moore County.
- TREND: Statistically unchanged over time.
- 55.9% 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 (note the negative correlation with income), and Blacks.
Cost Prevented Prescription Medication in Past Year
(Total Area, 2015)

DIFFICULTIES ACCESSING ROUTINE HEALTHCARE

Among all Total Area adults, 12.0% had difficulty obtaining routine healthcare at some point in the past year.

- Unfavorably high in Richmond County; lowest in Moore County.
- TREND: Marks a statistically significant increase since 1999.

Had Difficulty Obtaining Routine Medical Care in the Past Year
Adults more likely to report problems obtaining a medical appointment in the past year:

- Adults under 65 (note the negative correlation with age).
- Respondents with lower incomes (note the negative correlation with income).
- Uninsured adults.

**Had Difficulty Obtaining Routine Medical Care in the Past Year**
*(Total Area, 2015)*

Among these adults, 25.8% had trouble obtaining routine medical care once in the past year; 20.1% had trouble twice in the past year.

- Further, 24.2% of these adults report having trouble obtaining routine medical care five or more times in the past year.

**Number of Times Unable to Obtain Medical Care in the Past Year**
*(Respondents With Difficulty Obtaining Medical Care Last Year; Total Area, 2015)*
Reasons for difficulty largely included problems with lack of insurance coverage, cost, or problems getting an appointment.

Accessing Healthcare for Children

A total of 6.1% of parents say there was a time in the past year when they had difficulty getting a medical appointment for their child.

- Statistically similar by county.
- TREND: The decrease over time is not statistically significant.
- Statistically no difference by child’s age.

Had Trouble Obtaining a Child’s Medical Appointment in the Past Year (Among Parents of Children 0-17)

Among the parents experiencing difficulties, the majority cited not being able to get an appointment as the primary reason; others cited transportation issues.
Primary Care Services

About Primary Care

Improving health care services depends in part on ensuring that people have a usual and ongoing source of care. People with a usual source of care have better health outcomes and fewer disparities and costs. Having a primary care provider (PCP) as the usual source of care is especially important. PCPs can develop meaningful and sustained relationships with patients and provide integrated services while practicing in the context of family and community. Having a usual PCP is associated with:

- Greater patient trust in the provider
- Good patient-provider communication
- Increased likelihood that patients will receive appropriate care

Improving health care services includes increasing access to and use of evidence-based preventive services. Clinical preventive services are services that: prevent illness by detecting early warning signs or symptoms before they develop into a disease (primary prevention); or detect a disease at an earlier, and often more treatable, stage (secondary prevention).

- Healthy People 2020 (www.healthypeople.gov)

Access to Primary Care

Throughout the Total Area in 2012, there were 121 primary care physicians, translating to a rate of 56.2 primary care physicians per 100,000 population.

- Below the primary care physician-to-population ratio found statewide.
- Below the ratio found nationally.

Access to Primary Care

(Number of Primary Care Physicians per 100,000 Population, 2012)

<table>
<thead>
<tr>
<th>County</th>
<th>Primary Care Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>3</td>
</tr>
<tr>
<td>Montgomery</td>
<td>9</td>
</tr>
<tr>
<td>Moore</td>
<td>88</td>
</tr>
<tr>
<td>Richmond</td>
<td>21</td>
</tr>
<tr>
<td>Total Area</td>
<td>121</td>
</tr>
<tr>
<td>NC</td>
<td>6,737</td>
</tr>
<tr>
<td>US</td>
<td>233,862</td>
</tr>
</tbody>
</table>

Sources:
- Retrieved July 2015 from Community Commons at http://www.chna.org

Notes:
- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.
- Doctors classified as “primary care physicians” by the AMA include: General Family Medicine MDs and Dos, General Practice MDs and Dos, General Internal Medicine MDs and General Pediatric MDs.

- TREND: Access to primary care (in terms of the ratio of primary care physicians to population) has statistically increased over the past decade in the Total Area.
Trends in Access to Primary Care
(Number of Primary Care Physicians per 100,000 Population)


Notes:
- All primary care physicians practicing patient care, including hospital residents. In areas with teaching hospitals, this figure may differ from the rate reported in the prior slide.

Perceived Importance of Preventive Medical Care
The majority (85.7%) of survey respondents considers preventive routine medical care to be “very important.”

- Another 12.4% gave “somewhat important” opinions, while 1.9% said “not important.”

Perceived Importance of Preventive Routine Medical Care
(Total Area, 2015)
- The percentage of respondents who considers preventive routine medical care to be “very important” is highest in Richmond County; lowest in Montgomery County.
- TREND: Although decreasing in the past few years, the proportion of Total Area adults considering preventive medical care to be “very important” remains statistically higher than what was found in 2007.

**Preventive Routine Medical Care is “Very Important”**

<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>2007</td>
<td>85.6%</td>
<td>78.2%</td>
<td>85.3%</td>
<td>90.4%</td>
<td>85.7%</td>
</tr>
<tr>
<td>2011</td>
<td>80.3%</td>
<td>93.0%</td>
<td>85.7%</td>
<td>90.4%</td>
<td>85.7%</td>
</tr>
<tr>
<td>2015</td>
<td>89.0%</td>
<td>83.6%</td>
<td>85.7%</td>
<td>90.4%</td>
<td>85.7%</td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 18]
Notes: Asked of all respondents.
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

- Total Area men are less likely to consider preventive routine medical care to be “very important.”

**Preventive Routine Medical Care is “Very Important”**

(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Income</td>
<td>82.8%</td>
<td>88.3%</td>
<td>87.9%</td>
<td>84.9%</td>
<td>83.7%</td>
<td>83.4%</td>
<td>83.9%</td>
<td>88.7%</td>
<td>85.6%</td>
<td>84.2%</td>
<td>85.7%</td>
</tr>
<tr>
<td>Low Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid/High Income</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
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<tr>
<td>Black</td>
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<td></td>
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</tr>
</tbody>
</table>

Sources: 2015 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. “Very Low Income” includes households living below the federal poverty level; “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 (90.0%) 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.

- Highest in Moore County; lowest in Richmond County.
- TREND: No statistically significant change has occurred since 1999.

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

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 (note the positive correlation with age).
- Lower-income adults.

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 22, 24]
Notes: Asked of all respondents.
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
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 36.5%), Fayetteville (18.1%), Pinehurst (10.4%), or in Fort Bragg (10.4%).
- In Montgomery County, 54.9% receive routine care in Troy.
- In Moore County, 50.2% receive routine care in Pinehurst.
- In Richmond County, 43.8% receive routine care in Rockingham, and 13.7% receive care in Richmond.
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>36.5</td>
<td>Moore</td>
<td>Pinehurst</td>
<td>50.2</td>
</tr>
<tr>
<td>Fayetteville</td>
<td>18.1</td>
<td></td>
<td>Southern Pines</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Pinehurst</td>
<td>10.4</td>
<td></td>
<td>Carthage</td>
<td>6.4</td>
<td></td>
</tr>
<tr>
<td>Fort Bragg</td>
<td>10.4</td>
<td></td>
<td>Robbins</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Hope Mills</td>
<td>7.4</td>
<td></td>
<td>Aberdeen</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>Hoke County</td>
<td>4.3</td>
<td></td>
<td>Seven Lakes</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>12.9</td>
<td></td>
<td>Other</td>
<td>20.8</td>
<td></td>
</tr>
<tr>
<td>Montgomery</td>
<td>Troy</td>
<td>54.9</td>
<td>Richmond</td>
<td>Rockingham</td>
<td>43.8</td>
</tr>
<tr>
<td>Pinehurst</td>
<td>6</td>
<td></td>
<td>Richmond</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>Candor</td>
<td>5.5</td>
<td></td>
<td>Hamlet</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>Mount Gilead</td>
<td>4.6</td>
<td></td>
<td>Ellerbe</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td>Biscoe</td>
<td>3.2</td>
<td></td>
<td>Pinehurst</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>25.8</td>
<td></td>
<td>Other</td>
<td>15.4</td>
<td></td>
</tr>
</tbody>
</table>

Sources: 2015 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, 10.6% indicate that it has been more than one year.

Length of Time Since Most Recent Routine Health Care Visit
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 213]
Notes: Asked of all respondents.
ROUTINE HEALTHCARE VISITS WITHIN THE PAST YEAR

In all, 90.8% 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 (73.6%) identified a particular doctor’s office or private clinic.

Another 7.4% visited a hospital, while 8.9% went to some type of clinic, and 5.1% went to an urgent care center.

Type of Facility Used for Most Recent Routine Healthcare Visit
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 26]

Notes: Asked of all respondents.

In a follow-up inquiry, respondents were asked whether this site is the one generally chosen for routine healthcare. Overall, 81.8% responded affirmatively.
RATING OF MOST RECENT VISIT

The majority of Total Area adults gave “excellent” (47.3%) or “very good” (29.6%) ratings of their most recent routine healthcare visit.

- Another 16.3% gave “good” ratings, while 6.8% said “fair” or “poor.”
- By type of facility used, note that care obtained at a clinic received the highest “fair/poor” responses, followed by care obtained at a hospital.

Rating of Most Recent Routine Health Care Visit
(By Type of Facility Used; Total Area, 2015)

Dr’s Office Hospital Clinic UCC Total 2015
Excellent 50.2% 31.9% 39.6% 30.0% 47.3%
Very Good 31.9% 13.6% 34.0% 13.6% 31.9%
Good 29.6% 13.6% 5.9% 39.2% 34.0%
Fair 13.6% 5.9% 16.3% 39.2% 29.6%
Poor 6.8% 13.6% 6.8% 20.8% 13.6%

TREND: 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.

Rating of Most Recent Routine Health Care Visit
(Total Area Trend, 2015)

Excellent Very Good Good Fair Poor
1999 30.9% 38.5% 34.1% 28.0% 47.3%
2003 38.5% 38.2% 34.1% 28.0% 47.3%
2007 38.2% 38.2% 34.1% 28.0% 47.3%
2011 34.1% 38.2% 34.1% 28.0% 47.3%
2015 47.3% 38.2% 34.1% 28.0% 47.3%
RESOLUTION OF MEDICAL PROBLEMS

Most survey respondents (89.3%) feel their medical problem was taken care of during their most recent routine healthcare visit.

- Highest in Montgomery County.
- TREND: Denotes a statistically significant decrease from the 2007 rate.

Feel Problem Was Taken Care of During Most Recent Visit
(By Facility Visited)

In addition, 97.0% of Total Area adults indicate that they were seen by a health professional during their most recent visit. Among these people, 42.7% saw a family or general practitioner, while 14.3% saw a physician's assistant, and 12.1% saw an internist. Another 6.3% saw some type of MD (not specified/not known), while 6.1% saw a nurse practitioner at their most recent routine healthcare visit.

ABILITY TO RECEIVE PROMPT CARE

Most Total Area adults (89.1%) 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.

- Highest in Moore County; lower in Hoke and Richmond counties.
- TREND: Statistically similar to previous findings.
Adults under age 65, and especially those under 40, are less likely to be able to obtain a medical appointment when desired (note the positive correlation with age).
TREATMENT BY STAFF

The vast majority (99.2%) of survey respondents feel they were treated with respect during their most recent routine healthcare visit.

- Highest in Montgomery County.
- TREND: Shows a statistically significant increase from 2007 findings.
- No statistically significant difference in respect was seen when viewed by gender, age, income, or ethnicity (not shown).

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

<table>
<thead>
<tr>
<th>County</th>
<th>2007</th>
<th>2011</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>98.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>100.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>99.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>99.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>99.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 34]
Notes: Asked of all respondents.
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).

Another 95.3% of Total Area adults feel the staff understood their health problem during their most recent routine healthcare visit.

- Highest in Montgomery County.
- TREND: Statistically similar to previous findings.
Staff Understood Health Problem During Most Recent Routine Healthcare Visit

<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>93.7%</td>
<td>97.6%</td>
<td>96.2%</td>
<td>93.7%</td>
<td>94.7%</td>
</tr>
<tr>
<td>2007</td>
<td>97.5%</td>
<td>96.8%</td>
<td>93.7%</td>
<td>95.3%</td>
<td>96.8%</td>
</tr>
<tr>
<td>2011</td>
<td>95.3%</td>
<td>94.7%</td>
<td>93.7%</td>
<td>96.8%</td>
<td>97.5%</td>
</tr>
<tr>
<td>2015</td>
<td>96.2%</td>
<td>95.3%</td>
<td>96.8%</td>
<td>94.7%</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 three-fourths of survey respondents (78.3%) would utilize case management services, if these were available to them.

- Nevertheless, 21.7% would not use such services if available.

Would Use Case Management Services if Available (Total Area, 2015)

Yes 78.3%  No 21.7%

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 38]
Notes: Asked of all respondents.
Higher interest in Richmond County; lower interest in Moore County.

TREND: Willingness to use case management services has increased significantly since 2007.

Would Use Case Management Services if Available
(Total Area, 2015)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 38]
Notes:
- Asked of all respondents.
- Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Scheduling Preferences
A total of 80.1% of Total Area adults would prefer calling and talking with a scheduler in order to set up a doctor’s appointment.

- 2.8% would prefer to schedule an appointment online, and another 1.4% would want to request an appointment online and have a scheduler follow-up with them later.
- Less than 1.5% would want to chat online, email, or text a scheduler.

Preferred Process for Scheduling a Doctor’s Appointment
(Total Area, 2015)

A total of 71.4% of Total Area adults would prefer to receive a phone call as a reminder for an appointment.

- Receiving a text message was chosen by 14.6%, whereas 6.5% selected a postal letter and 7.6% an email reminder.
Interest in Tele-Health

A majority of respondents indicated that they would be likely to use tele-health visits if offered, including 23.4% who would be very likely.

- However, 45.7% said they would not use tele-health if offered.

**Probability of Using Tele-health Visits if Offered**

(Total Area, 2015)

![Probability of Using Tele-health Visits if Offered](image)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 39]
Notes: Asked of all respondents.

PERSONAL ACCESS TO THE INTERNET

Increasingly, Americans rely on the Internet as a primary source of healthcare information.

A total of 83.9% of Total Area adults report having access to the Internet for personal use, either at home, work, or school.

- Higher in Hoke and Moore counties; lower in Montgomery County.
- TREND: Shows a statistically significant increase over the past four years.

**Have Access to the Internet for Personal Use**

![Have Access to the Internet for Personal Use](image)

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc.  [Item 90]
Notes: Asked of all respondents.
When viewed by demographic characteristics, the following population segments are less likely to have access to the Internet for personal use:

- Seniors (note the strong negative correlation with age).
- Lower-income adults (note the strong positive correlation with income).
- Blacks.

![Have Access to the Internet for Personal Use (Total Area, 2015)]

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>66.1%</td>
<td>86.5%</td>
<td>81.5%</td>
<td>94.4%</td>
<td>85.8%</td>
<td>62.8%</td>
<td>60.7%</td>
<td>79.1%</td>
<td>95.8%</td>
<td>87.1%</td>
<td>74.0%</td>
<td>83.9%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 90]

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. "Very Low Income" includes households living below the federal poverty level; "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.

Nearly two-thirds (66.1%) of Total Area adults have a smartphone or phone that can download apps, access email, or use the internet.

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

![Have a Smartphone](chart)

<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>79.6%</td>
<td>54.7%</td>
<td>61.9%</td>
<td>70.5%</td>
<td>66.1%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 91]

Notes:
- Asked of all respondents.
- In this case "smartphone" is any phone that can download apps, access email, or use the internet.
Those more likely to own a smart phone include:

- Younger adults (note the strong negative correlation with age).
- Residents with higher incomes (note the positive correlation with income).

### Have a Smartphone
(Total Area, 2015)

<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>Very Low Income</th>
<th>Low Income</th>
<th>Mid/High Income</th>
<th>White</th>
<th>Black</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a Smartphone</td>
<td>67.3%</td>
<td>65.0%</td>
<td>91.3%</td>
<td>62.2%</td>
<td>32.6%</td>
<td></td>
<td>48.5%</td>
<td>60.5%</td>
<td></td>
<td></td>
<td>66.1%</td>
</tr>
</tbody>
</table>

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 91]

Notes:
- 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. “Very Low Income” includes households living below the federal poverty level; “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.
Emergency Room Utilization

A total of 44.2% 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.
- TREND: After matching the 1999 rate in 2011, emergency room usage increased significantly.

Member of Household
Received Emergency Care in the Past Year

- Use of emergency healthcare services is more prevalent among young adults (note the negative correlation with age).
When asked to specify which facility was used for emergency services, just over one-half (51.6%) of survey respondents indicated FirstHealth Moore Regional Hospital.

- Other facilities utilized include FirstHealth Richmond Memorial Hospital (mentioned by 17.4%), FirstHealth Moore Regional Hospital-Hoke Campus (5.4%), FirstHealth Montgomery Memorial Hospital (5.4%), Sandhills Regional Medical Center (3.0%), and Cape Fear Valley Medical Center (2.7%).

Specific Emergency Facility Used in the Past Year
(Respondents w/Household Member Who Received Emergency Care in the Past Year; Total Area, 2015)
DIFFICULTY ACCESSING EMERGENCY CARE

A total of 3.9% 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; lowest in Moore County.
- TREND: Statistically unchanged over time.

Unable to Receive Emergency Care in the Past Year When Needed

- Adults more likely to be unable to access emergency services in the past year include those under age 65 (note the negative correlation with age), and the Total Area uninsured residents.
Unable to Receive Emergency Care in the Past Year When Needed
(Total Area, 2015)

Among adults who were unable to access emergency services in the past year, 53.6% indicate that this happened once, while 26.5% were unable to access services twice, and 1.9% reported being unable to obtain emergency services three times in the past year. A total of 18.1% 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 wait time, inability to get an appointment, cost, understaffing, and lack of insurance, to name a few.
Oral Health

About Oral Health

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; and poor dietary choices.

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.

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; and 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.

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)

Dental Care

ADULTS

A total of 62.4% of Total Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- Statistically similar to statewide findings.
- Statistically similar to national findings.
- Satisfies the Healthy People 2020 target (49% or higher).
- Lowest in Richmond County; highest in Moore County.
- TREND: Since 1999, utilization of dental care has varied slightly, but has remained statistically unchanged.
Have Visited a Dentist or Dental Clinic Within the Past Year
Healthy People 2020 Target = 49.0% or Higher

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 43)

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

Note the following:
- There is a strong positive correlation between income and recent dental visits (very low-income adults fail to satisfy the Healthy People 2020 target).
- Whites are much more likely than Blacks to report recent dental care.
- As might be expected, persons without insurance report much lower utilization of oral health services than those with dental coverage.

Dental Clinic Within the Past Year
(Total Area, 2015)
Healthy People 2020 Target = 49.0% or Higher

Sources:
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 43)

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. “Very Low Income” includes households living below the federal poverty level; “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.
Vision Care

A total of 63.1% of residents had an eye exam in the past two years during which their pupils were dilated.

- Better than the national findings.
- Lower in Hoke County; higher in Moore County.
- TREND: Displays a statistically significant decrease since 1999.

**Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated**

![Pie chart showing vision care statistics by county.]

- Hoke County: 55.3%
- Montgomery County: 61.5%
- Moore County: 67.9%
- Richmond County: 60.4%
- Total Area: 63.1%
- US: 56.8%

**Sources:**
- PRC Community Health Surveys, Professional Research Consultants, Inc. (Item 42)
- 2013 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 surveys in 1999 and 2003 did not require that the eyes be dilated at the most recent eye exam.

Recent vision care in the Total Area is more often reported among older adults and residents with higher incomes (note the strong positive correlations with both age and income).

**Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated**

(Total Area, 2015)

![Bar chart showing vision care statistics by age and income.]

- Men: 59.4%
- Women: 66.3%
- 18 to 39: 48.0%
- 40 to 64: 63.4%
- 65+: 86.3%
- Very Low Income: 47.4%
- Low Income: 58.5%
- Mid/High Income: 71.8%
- White: 65.9%
- Black: 58.5%
- Total Area: 63.1%

**Sources:**
- 2015 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 42)

**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. "Very Low Income" includes households living below the federal poverty level; "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.
Local Resources
Perceptions of Local Healthcare Services

Satisfaction With the Quality of Local Healthcare

Nearly 6 in 10 Total Area adults (59.4%) are “very satisfied” with the quality of healthcare services available in their community.

- Another 31.1% are “somewhat satisfied,” while 9.5% 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.

TREND: Marks a statistically significant improvement in ratings over time.

“Very Satisfied” With the Quality of Local Healthcare

Sources:
- 2015 PRC Community Health Survey, 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 (note the positive correlation of satisfaction with age).
- Residents with lower incomes (note the positive correlation with income).
- Blacks.
- Uninsured adults.

**“Very Satisfied” With the Quality of Local Healthcare**
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 12]

Notes:
- 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. “Very Low Income” includes households living below the federal poverty level; “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.

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Professional Research Consultants, Inc.
Perceived Need for Area Physicians

Most survey respondents either “strongly agree” (16.8%) or “agree” (48.0%) with the statement, “There are enough physicians in my community.”

- On the other hand, 27.1% of survey respondents disagree, perceiving a need for more physicians in the community.

“There Are Enough Doctors in My Community”
(Total Area, 2015)

Sources: 2015 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 8]
Notes: Asked of all respondents.

- Favorably low in Moore County; high in Hoke and Montgomery counties.
- TREND: Statistically similar to previous findings.

Perceive a Need for More Doctors in the Community

Sources: PRC Community Health Surveys, Professional Research Consultants, Inc. [Item 8]
Notes: Asked of all respondents.
Percentages represent combined “disagree” and “strongly disagree” responses to the statement, “There are enough doctors in my community.”
Trending: prior to 2011, the Total Area included four Pembroke ZIP Codes (28364, 28372, 28377 and 28386).
Healthcare Resources & Facilities

Hospitals & Federally Qualified Health Centers (FQHCs)
As of June 2014, there were 3 hospitals and 2 Federally Qualified Health Centers (FQHCs) within the Total Area.

Health Professional Shortage Areas (HPSAs)
The following map illustrates the local areas designated as HPSAs.
Attachment B

First-In-Health 2020 Data Charts
Health Status of Moore County

Community Health Assessment Results 2016
## Population

<table>
<thead>
<tr>
<th>County</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>48,842</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>27,707</td>
</tr>
<tr>
<td>Moore County</td>
<td>89,425</td>
</tr>
<tr>
<td>Richmond County</td>
<td>46,534</td>
</tr>
<tr>
<td>North Carolina</td>
<td>9,651,380</td>
</tr>
</tbody>
</table>
## Heart Disease

<table>
<thead>
<tr>
<th>County</th>
<th>Heart Disease Mortality</th>
<th>Prevalence of Heart Disease (percent)</th>
<th>Prevalence of High Blood Pressure (percent)</th>
<th>Prevalence of High Cholesterol</th>
<th>Present One or More Cardiovascular Risks or Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>218.5</td>
<td>6.7</td>
<td>44.6</td>
<td>41.4</td>
<td>89.4</td>
</tr>
<tr>
<td>Montgomery</td>
<td>154.6</td>
<td>9.3</td>
<td>45.5</td>
<td>37.3</td>
<td>85.8</td>
</tr>
<tr>
<td>Moore</td>
<td>125.5</td>
<td>7.2</td>
<td>44.8</td>
<td>38.5</td>
<td>87.4</td>
</tr>
<tr>
<td>Richmond</td>
<td>233.9</td>
<td>10.3</td>
<td>50.2</td>
<td>38.4</td>
<td>96.4</td>
</tr>
<tr>
<td>NC</td>
<td>166.4</td>
<td>6.1 (US)</td>
<td>35.5</td>
<td>41.0</td>
<td>82.3 (US)</td>
</tr>
</tbody>
</table>
# Diabetes

<table>
<thead>
<tr>
<th>County</th>
<th>Diabetes Mortality</th>
<th>Prevalence of diabetes (percent)</th>
<th>Prevalence of Pre-diabetes (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>25.4</td>
<td>20.5</td>
<td>7.3</td>
</tr>
<tr>
<td>Montgomery</td>
<td>31.8</td>
<td>14.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Moore</td>
<td>12</td>
<td>17.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Richmond</td>
<td>54.8</td>
<td>22.9</td>
<td>6.8</td>
</tr>
<tr>
<td>NC</td>
<td>22.2</td>
<td>9.8</td>
<td>5.1 (US)</td>
</tr>
</tbody>
</table>
## Weight Status

<table>
<thead>
<tr>
<th>County</th>
<th>Healthy Weight (BMI 18.5 – 24.9) percent</th>
<th>Prevalence of Total Overweight (BMI 25+) percent</th>
<th>Prevalence of Obesity (BMI 30+) percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>23.3</td>
<td>76.5</td>
<td>47.2</td>
</tr>
<tr>
<td>Montgomery</td>
<td>27.4</td>
<td>70.1</td>
<td>39.9</td>
</tr>
<tr>
<td>Moore</td>
<td>26.9</td>
<td>70.5</td>
<td>34.0</td>
</tr>
<tr>
<td>Richmond</td>
<td>20.4</td>
<td>79.0</td>
<td>46.8</td>
</tr>
<tr>
<td>NC</td>
<td>32.2</td>
<td>66.1</td>
<td>29.4</td>
</tr>
</tbody>
</table>
## Lifestyle Habits

<table>
<thead>
<tr>
<th>County</th>
<th>Sedentary (percent)</th>
<th>Population with Low Food Access (percent)</th>
<th>Consume Three or More Servings of Vegetables Per Day (percent)</th>
<th>Population with Recreation and Fitness Facility Access (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke</td>
<td>60.3</td>
<td>17.0</td>
<td>16.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Montgomery</td>
<td>66.6</td>
<td>15.1</td>
<td>15.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Moore</td>
<td>52.5</td>
<td>32.2</td>
<td>16.3</td>
<td>10.2</td>
</tr>
<tr>
<td>Richmond</td>
<td>61.0</td>
<td>21.2</td>
<td>12.4</td>
<td>10.7</td>
</tr>
<tr>
<td>NC</td>
<td>N/A</td>
<td>24.8</td>
<td>N/A</td>
<td>10.1</td>
</tr>
</tbody>
</table>
First-In-Health 2020 Data
First-In-Health 2020 Data

PRC Survey
• Random digit-dialed phone survey
• Surveyed 1,277 over four-county region
• 528 in Moore County
• Oversampled African-American population

First-In-Health
• 9 Health Categories
• 58 health indicators
Moore County, North Carolina

2020 Vision "First in Health" Progress
Category: Economic, Social and Educational Status

Goals

- Percent living in poverty: 12%
- Median working income: $22,276
- Unemployment rate: 5.5%
- Literacy rate: 90%
- Percent of population with a HS diploma or higher: 95%
- High school completion: 95%
- Percent insured*: 100%
- Moore County's overall percentage towards goal

* self reported

At 100% of goal

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Chronic Disease

Moore 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
Moore County's overall percentage towards goal

Goals
- Taking action to control high cholesterol: 83%
- Taking action to control high blood pressure: 95%
- Perceived disability or physical limitation: 19%
- Diabetes prevalence: 8.2%
- Diabetes age-adjusted mortality: 16.8 deaths per 100,000
- Stroke age-adjusted mortality: 55.8 deaths per 100,000
- Cancer age-adjusted mortality: 197.4 deaths per 100,000
- Heart disease age-adjusted mortality: 233.9 deaths per 100,000
- Total age-adjusted mortality: 770.8 deaths per 100,000

* self reported

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Mother and Child Health

Moore County, North Carolina

Goals

- Mother smoked during pregnancy: 7%
- Teen pregnancy rate: 35 per 1000
- Very low birth weight: 1.4%
- Prenatal care: 100%
- Infant mortality: 8.5 per 1000

Moore County's overall percentage towards goal:

- Mother smoked during pregnancy: -80%
- Teen pregnancy rate: 1%
- Very low birth weight: 5%
- Prenatal care: -5%
- Infant mortality: 5%

At 100% of goal

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Mother and Child Health

Hoke County, North Carolina

- **Goals**
  - Mother smoked during pregnancy: 7%
  - Teen pregnancy rate: 35 per 1000
  - Very low birth weight: 1.4%
  - Prenatal care: 100%
  - Infant mortality: 8.5 per 1000

**Updated based on data available as of April 2016.**

- **At 100% of goal**
2020 Vision "First in Health" Progress
Category: Adult Prevention and Primary Care

Moore County, North Carolina

Goals

- Adult obesity rate*: 17%
- Pneumonia vaccinations*: 90%
- Flu shots*: 90%
- Prostate cancer screenings*: 91%
- Pap smears*: 95%
- Mammography*: 85%
- Quality of care*: 94%
- No leisure time physical activity*: 29%
- Self-reported good to excellent physical health*: 100%

Moore County’s overall percentage towards goal

Percent below the goal

Percent above the goal

* self reported

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Safety
Moore County, North Carolina

Goals

Substantiated child maltreatment
- 16 cases per 1000 children
- 1%

Domestic violence
- 3226 per 100,000
- 204 per 100,000

Property crime rate

Violent crime rate

Motor vehicle death rate

Moore County's overall percentage towards goal

Percent below the goal  Percent above the goal
-100  -80  -60  -40  -20  0  20  40  60  80  100

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Communicable Diseases

Moore County, North Carolina

<table>
<thead>
<tr>
<th>Disease</th>
<th>2015 Goal</th>
<th>2011 Goal</th>
<th>2007 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis cases</td>
<td>4.9 cases</td>
<td>103 cases</td>
<td>7.9 cases</td>
</tr>
<tr>
<td>Gonorrhea cases</td>
<td>7.3 cases</td>
<td>100,000</td>
<td>7.9 cases</td>
</tr>
<tr>
<td>Syphilis cases</td>
<td>7.3 cases</td>
<td>100,000</td>
<td>7.9 cases</td>
</tr>
<tr>
<td>AIDS cases</td>
<td>7.3 cases</td>
<td>100,000</td>
<td>7.9 cases</td>
</tr>
</tbody>
</table>

Moore County's overall percentage towards goal

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Community Assets

Moore County, North Carolina

Goals
- 750 students per nurse
- 100%
- 3 per 10,000
- 4 per 10,000
- 20 per 10,000
- 88%

Updated based on data available as of April 2016.

* self reported
**2020 Vision "First in Health" Progress**
Category: Behavioral Health

Moore County, North Carolina

**Goals**
- **Stress***: 38%
- **Utilization of mental health services***: 50%
- **Connectivity***: 77%
- **Depression***: 20%
- **Tobacco use***: 12%
- **Alcohol abuse***: 3.2%
- **Suicide**: 6 per 100,000

Moore County's overall percentage towards goal

* self reported

Updated based on data available as of April 2016.
2020 Vision "First in Health" Progress
Category: Childhood Prevention and Primary Care

Moore County, North Carolina

<table>
<thead>
<tr>
<th>Goal Description</th>
<th>2015</th>
<th>2011</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidental injury deaths</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of children overweight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma hospitalizations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dental sealant rate among 5th graders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decayed, missing, or filled teeth in grade K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decayed teeth in grade K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moore County's overall percentage towards goal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At 100% of goal

Goals

- Accidental injury deaths: 2.4 per 100,000
- Percent of children overweight: 98.5%
- Asthma hospitalizations: 201.3 per 100,000
- Dental sealant rate among 5th graders: 41%
- Decayed, missing, or filled teeth in grade K: 60%
- Decayed teeth in grade K: 23%
- Moore County's overall percentage towards goal: 97%

Updated based on data available as of April 2016.
Moore County's overall progression towards the goals

Updated based on data available as of April, 2016.
Five County Service Region's overall progression towards the goals

Hoke County
Montgomery County
Moore County
Richmond County

Updated based on data available as of April, 2016.
Next Steps
Questions
Attachment C

Moore County Health Department
Community Health Assessment Tool
And Results
Hello, I am ___________ and this is ____________ representing Moore County Health Department. (Show badges.) We are here to ask you to participate in a health opinion survey for our county. You were one of the addresses selected at random. The purpose of this survey is to learn more about the health and quality of life in Moore County, North Carolina. The Moore County Health Department, MooreHealth Inc., and Moore County United Way will use the results of this survey to help develop plans for addressing the major health and community issues in Moore County. All the information you give us will be completely confidential and will not be linked to you in any way.

This survey is completely voluntary. It should take around 10-15 minutes to complete. If you have already completed this survey, or if you don’t live in Moore County, please tell me now.

Would you be willing to participate?
Moore County
Community Health Survey

PART 1: Community Problems and Issues

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 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 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.)
   ___ 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 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 illness
   ___ Not using seat belts
   ___ Not going to the dentist for yearly check-ups & screenings
   ___ Not getting prenatal care (pregnancy) care
   ___ Not going to a dentist for preventive check-ups / care
   ___ Not getting prenatal care
   ___ Not getting prenatal care
   ___ Not washing hands
   ___ Poor eating habits
   ___ Drunk driving
   ___ Smoking/tobacco use
   ___ Suicide
   ___ Violent behavior
   ___ Other: ______________
Community Issues

4. These next questions are about community-wide issues that have the largest impact on the overall quality of life in Moore 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? Please choose only one.

- Friends and family
- Doctor/nurse/pharmacist
- Hospital
- Internet
- Help lines (telephone)
- Health Department
- School
- Church
- School
- Television
- Books/magazines
- Free Care Clinic
- Newspaper
- Health Department
- Other
- Internet
- Other
- Free Care Clinic
- Help lines (telephone)
- Telephone
- Social media (twitter, facebook)

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
- Veterans Administration Clinic
- Urgent Care Center
- Free Care Clinic
- Other: ______________________

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?**
   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. Read responses. 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 (other than work) 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.
   a._____ Park   f._____ Home
   b._____ Public Recreation Center   g._____ Senior Center
   c._____ School   h._____ Church
   d._____ Gym/Fitness Center   i. _____ Other: _____________________
   e._____ Greenway trails

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   f._____ It costs too much to exercise
      (equipment, shoes, gym costs)
   b._____ Exercise is not important to me.   g._____ I’m too tired to exercise.
   c.____ I don’t have access to a facility that has
      the things I need, like a pool, golf course, etc.   h._____ I’m physically disabled.
      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.
18. How many hours per day do you watch TV, play video games, or use the computer, tablet, or a smart phone for recreation?
   ____ 0-1 hour     ____ 2-3 hours     ____ 4-5 hours     ____ 6+ hours

19. Do you utilize any local farmer’s markets?
   ____ Yes (now skip to #21)   ____ No (go to #20)

20. If no, why would you not utilize a local farmer’s market?
   ___ Inconvenient    ___ Too expensive    ___ Rather shop elsewhere
   ___ Market hours don’t meet my needs    ___ Don’t eat fruits and vegetables
   ___ Location is inconvenient/transportation is an issue    ___ Don’t have items/variety I’m looking for
   ___ Not aware of markets in my area/where they are located
   ___ Other ____________________________________________________________

21. Are you exposed to secondhand smoke in any of the following places (Check all that apply)?
   a. ____ Home
   b. ____ Workplace
   c. ____ Church
   d. ____ Automobile
   e. ____ Other: ______________________________________________________
   f. ____ I am not exposed to secondhand smoke.

22. Do you currently smoke?  ____Yes    ____ No
   Do you currently use other tobacco products?  ____ Yes    ____ No
   (If no to both, skip to question #24)

23. 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. ____ Not applicable; I don’t want to quit
24. 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

25. Do you have children between the ages of 9 and 19?

   \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \(\text{now go to question \#26}\)  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No  \(\text{now skip to question \#30}\)

26. Would you be interested in allowing your child to walk to school if there was a safe route?

   \[\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

27. 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  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   b. Tobacco Use  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   c. Gangs  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   d. Eating Disorders  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   e. Sexual activity  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   f. Drug Abuse  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   g. Criminal activities  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   h. Distracted driving/speeding  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   i. Skipping school  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   j. Don’t know  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No

   k. I don’t think my child is engaging in any high risk behaviors.

   *(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.)*

28. Are you comfortable talking to your child about the risky behaviors we just asked about?

   \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] Yes  \[\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\] No
29. 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. ___ Bullying  
n. ___ Other

Part 3. Emergency Preparedness

30. 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 ___

31. What would be your main way of getting information from authorities in a large-scale disaster or emergency? *Check one*

___ Television  
___ Print Media (ex: Newspaper)  
___ Social Networking Site  
___ Neighbors  
___ Don’t know/Not Sure  
___ Other ____________________  
___ Radio  
___ Text Message (Emergency Alert System)

32. If public authorities announced a mandatory evacuation from your neighborhood or community due to a large-scale disaster or emergency, would you evacuate?

_____ Yes (now skip to #34)  
_____ No (go to #33)

33. What would be the main reason you might not evacuate if asked to do so? *Check one*

___ Concern about personal family/family safety  
___ Inability to get out of home or area  
___ Lack of trust  
___ Health problems (could not be moved)  
___ Not wanting to leave home or property  
___ Lack of transportation  
___ Concern about leaving pets  
___ Don’t know/Not sure  
___ Other ____________________
34. Does your household have a Family Emergency Plan? (This would be a plan that includes ways to get to safe locations for relevant emergencies, communication during an emergency, staying safe during an emergency, establishing a meeting place if you had to leave your home during an emergency, etc.)

[ ] Yes [ ] No

35. Does your family have a basic emergency supply kit? If yes, how many days do you have supplies for? (This would be an emergency kit that has been prepared ahead of time. A kit usually can contain a supply of food, water, a flashlight, batteries, a weather radio, first aid kit, along with any other basic supplies needed during an emergency.)

[ ] No [ ] 3 days [ ] 1 week [ ] 2 weeks [ ] More than 2 weeks

Part 4. Demographic Questions

The next set of questions are general questions about you, which will only be reported as a summary of all answers given by survey participants. Your answers will remain anonymous.

36. 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

37. How old are you? (Mark age category.)

[ ] 18 - 24 [ ] 35 - 44 [ ] 55 - 64 [ ] 75 or older
[ ] 25 - 34 [ ] 45 - 54 [ ] 64 – 74

38. Are you Male or Female? (In most cases, this question can be answered by the interviewer without asking.)

[ ] Male [ ] Female

39. Are you of Hispanic origin?

[ ] Yes [ ] No

40. What is your race?

Ask the question by reading the categories. 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: ____________________
41. A. Do you speak a language other than English at home?
   ___Yes  ___No

   B. If yes, what language do you speak at home? ________________________

42. 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: _________________________

43. How many people live in your household? _________

44. (Based on answer to question # 43, ask the individual if their annual household income is either above or below the threshold level dollar amount that corresponds with the family size answer they gave in question #43. Place an “X” indicating if income is “above” or is “at or below” the threshold.)
   ____ Income is above threshold  ____ Income is at or below threshold

<table>
<thead>
<tr>
<th>Family size</th>
<th>200% FPL Threshold Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$23,540</td>
</tr>
<tr>
<td>2</td>
<td>$31,860</td>
</tr>
<tr>
<td>3</td>
<td>$40,180</td>
</tr>
<tr>
<td>4</td>
<td>$48,500</td>
</tr>
<tr>
<td>5</td>
<td>$56,820</td>
</tr>
<tr>
<td>6</td>
<td>$65,140</td>
</tr>
<tr>
<td>7</td>
<td>$73,460</td>
</tr>
<tr>
<td>8</td>
<td>$81,780</td>
</tr>
</tbody>
</table>
45. 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  
b. ____ Employed part-time  
c. ____ Retired  
d. ____ Military  
e. ____ Unemployed  
f. ____ Disabled  
g. ____ Student  
h. ____ Homemaker/Stay at Home Parent  
i. ____ Self-employed

46. Do you have access to the Internet or own a smart phone?  
____ Yes  ____ No

47. What is your zip code? (Write only the first 5 digits.) ________________

48. Are you a member of a faith organization?  ____ Yes  ____ No
2016 Community Health Opinion Survey

Moore County
Survey

- A 48 question survey regarding the overall health of the community administered to 210 randomly selected Moore County households.
- Door to Door
- October 27-29, 2016
- Addresses Randomized and stratified based on Moore County’s 14 Zip Code Regions (roughly 15 surveys per zip region).
Participant Data

- Nearly 70% lived in Moore County either 10+ years or their whole life
- 56.7% were female, 43.3% were male
- 5.3% were Hispanic, 11.5% were African American, 1.4% were Native American, and 4.8% were Other
- Nearly 30% were high school graduates/GED eqv.
- 37.3% were below the 200% poverty threshold
- 39.8% were either employed part/full time, 35.4% were retired, and 5.8% were unemployed
- 86% had internet access or owned a smartphone
- 57.6% were members of a faith organization
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24</td>
<td>5.24%</td>
</tr>
<tr>
<td>25 – 34</td>
<td>11.90%</td>
</tr>
<tr>
<td>35 – 44</td>
<td>17.14%</td>
</tr>
<tr>
<td>45 – 54</td>
<td>11.43%</td>
</tr>
<tr>
<td>55 – 64</td>
<td>17.14%</td>
</tr>
<tr>
<td>64 – 74</td>
<td>23.81%</td>
</tr>
<tr>
<td>75 or older</td>
<td>13.33%</td>
</tr>
</tbody>
</table>
Top 5 Health Problems

1. Aging Issues
2. Cancer
3. Heart Disease
4. High Blood Pressure
5. Obesity/Overweight
Top 5 Unhealthy Behaviors

1. Illegal Drug Abuse
2. Alcohol Abuse
3. Prescription Drug Abuse
4. Smoking/Tobacco Use
T5. Drunk Driving
T5. Reckless/Distracted Driving

*Lack of Exercise & Poor Eating Habits Ranked 6-7, Respectively*
Top 5 Community Issues Having the Greatest Effect on Quality of Life

1. Low Income/Poverty
2. Affordability of Health Services
3. Lack of/or Inadequate Health Insurance
4. Unemployment
5. Lack of Recreational Facilities
Are You Covered by a Health Insurance Plan?

• 89.5 Said Yes
• 10.5 Said No

<table>
<thead>
<tr>
<th>Insurance Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private insurance (Ex: BCBS, Aetna, Cigna, etc…)</td>
<td>44.97%</td>
</tr>
<tr>
<td>Medicare (includes supplemental policy)</td>
<td>38.10%</td>
</tr>
<tr>
<td>Tricare/VA</td>
<td>8.47%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>6.35%</td>
</tr>
</tbody>
</table>
Main Concerns W/Health Coverage...

<table>
<thead>
<tr>
<th>Concern</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High deductibles</td>
<td>68.75%</td>
</tr>
<tr>
<td>High co-pays</td>
<td>42.50%</td>
</tr>
<tr>
<td>High prescription costs</td>
<td>38.75%</td>
</tr>
<tr>
<td>Other</td>
<td>16.25%</td>
</tr>
</tbody>
</table>
During a normal week, do you engage in any exercise activity (other than work) that lasts at least a half an hour?

• 75.1 said Yes
• 24.9 said No
Those who said yes say they exercise...

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2 times/week</td>
<td>17.83%</td>
</tr>
<tr>
<td>3 to 4 times/week</td>
<td>49.04%</td>
</tr>
<tr>
<td>5 to 6 times/week</td>
<td>17.83%</td>
</tr>
<tr>
<td>7 or more times/week</td>
<td>15.29%</td>
</tr>
</tbody>
</table>
Those who said no did so because...

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t have enough time to exercise</td>
<td>26.00%</td>
</tr>
<tr>
<td>I’m physically disabled.</td>
<td>22.00%</td>
</tr>
<tr>
<td>My job is physical or hard labor</td>
<td>18.00%</td>
</tr>
<tr>
<td>I don’t like to exercise.</td>
<td>16.00%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>12.00%</td>
</tr>
<tr>
<td>Exercise is not important to me</td>
<td>8.00%</td>
</tr>
<tr>
<td>I’m too tired to exercise.</td>
<td>6.00%</td>
</tr>
</tbody>
</table>
Where Do You Go To Exercise?

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>65.61%</td>
</tr>
<tr>
<td>Gym/Fitness Center</td>
<td>29.94%</td>
</tr>
<tr>
<td>Park</td>
<td>13.38%</td>
</tr>
<tr>
<td>Other</td>
<td>10.19%</td>
</tr>
<tr>
<td>Trails/Greenways</td>
<td>5.73%</td>
</tr>
<tr>
<td>Senior Center</td>
<td>4.46%</td>
</tr>
<tr>
<td>Public Recreation Center</td>
<td>3.18%</td>
</tr>
<tr>
<td>School</td>
<td>1.27%</td>
</tr>
<tr>
<td>Church</td>
<td>1.27%</td>
</tr>
</tbody>
</table>
How many hours per day do you watch TV, play video games, or use the computer, tablet, or a smart phone for recreation?

<table>
<thead>
<tr>
<th>Hours per Day</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 hour</td>
<td>21.43%</td>
</tr>
<tr>
<td>2-3 hours</td>
<td>40.00%</td>
</tr>
<tr>
<td>4-5 hours</td>
<td>24.29%</td>
</tr>
<tr>
<td>6+ hours</td>
<td>14.29%</td>
</tr>
</tbody>
</table>
Do You Utilize Any Local Farmer’s Markets/Farm Stands?

• 47.8 Said Yes
• 52.2 Said No
Those Who Said They Didn’t Did Not Because...

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconvenient</td>
<td>24.07%</td>
</tr>
<tr>
<td>Other</td>
<td>18.52%</td>
</tr>
<tr>
<td>Market hours don’t meet my needs</td>
<td>17.59%</td>
</tr>
<tr>
<td>Location is inconvenient/transportation is an issue</td>
<td>17.59%</td>
</tr>
<tr>
<td>Not aware of markets in my area/where they are located</td>
<td>12.96%</td>
</tr>
<tr>
<td>Rather shop elsewhere</td>
<td>9.26%</td>
</tr>
<tr>
<td>Don’t eat fruits and vegetables</td>
<td>5.56%</td>
</tr>
<tr>
<td>Too expensive</td>
<td>4.63%</td>
</tr>
<tr>
<td>Don’t have items/variety I’m looking for</td>
<td>2.78%</td>
</tr>
</tbody>
</table>
**Are You Exposed to Secondhand Smoke?**

<table>
<thead>
<tr>
<th>Environment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not exposed to secondhand smoke</td>
<td>78.16%</td>
</tr>
<tr>
<td>Home</td>
<td>14.08%</td>
</tr>
<tr>
<td>Workplace</td>
<td>5.34%</td>
</tr>
<tr>
<td>Other</td>
<td>4.37%</td>
</tr>
<tr>
<td>Automobile</td>
<td>3.40%</td>
</tr>
<tr>
<td>Church</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Do You Currently Smoke?

- 79.9% Said No
- 20.1% Said Yes

Do You Currently Use Other Tobacco Products (Inc. E-Cigs/Vape)?

- 95.1% Said No
- 4.9% Said Yes
Where Would You Go If You Wanted to Quit?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable; I don’t want to quit</td>
<td>36.59%</td>
</tr>
<tr>
<td>Doctor</td>
<td>34.15%</td>
</tr>
<tr>
<td>Other</td>
<td>14.63%</td>
</tr>
<tr>
<td>Hospital</td>
<td>9.76%</td>
</tr>
<tr>
<td>Quit Now NC</td>
<td>4.88%</td>
</tr>
<tr>
<td>Health Department</td>
<td>4.88%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>4.88%</td>
</tr>
<tr>
<td>Church</td>
<td>0.00%</td>
</tr>
<tr>
<td>Private counselor/therapist</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
**Have You Ever Been Told by a Doctor or Health Professional that you have/have had any of the Following Conditions?**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High blood pressure</td>
<td>58.09%</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>50.00%</td>
</tr>
<tr>
<td>Overweight/Obesity</td>
<td>36.03%</td>
</tr>
<tr>
<td>Depression or anxiety disorder</td>
<td>24.26%</td>
</tr>
<tr>
<td>Asthma</td>
<td>17.65%</td>
</tr>
<tr>
<td>Diabetes (not during pregnancy)</td>
<td>13.97%</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>8.09%</td>
</tr>
</tbody>
</table>
Do You Think Your Child is Engaging in Any of the Following Risky Behaviors?

<table>
<thead>
<tr>
<th>Risky Behavior</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t think my child is engaging in any high risk behaviors.</td>
<td>77.55%</td>
</tr>
<tr>
<td>Sexual activity</td>
<td>12.24%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>10.20%</td>
</tr>
<tr>
<td>Distracted driving/speeding</td>
<td>10.20%</td>
</tr>
<tr>
<td>Skipping school</td>
<td>8.16%</td>
</tr>
<tr>
<td>Tobacco Use</td>
<td>4.08%</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td>4.08%</td>
</tr>
<tr>
<td>Gangs</td>
<td>2.04%</td>
</tr>
<tr>
<td>Criminal activities</td>
<td>2.04%</td>
</tr>
<tr>
<td>Drug Abuse</td>
<td>2.04%</td>
</tr>
<tr>
<td>Eating Disorders</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Top 5 Topics Parents Think Their Kids Need More Education/Info About...

1. Internet Safety
2. Sexual Activity/Teen Pregnancy
3. Alcohol
3. Dating Violence
4. Bullying
5. Distracted Driving, Tobacco, Drug Abuse, STDs, and Birth Control
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?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private counselor or therapist</td>
<td>32.69%</td>
</tr>
<tr>
<td>Doctor</td>
<td>24.52%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>22.12%</td>
</tr>
<tr>
<td>Minister/religious official</td>
<td>13.94%</td>
</tr>
<tr>
<td>Support group (e.g., AA, Al-Anon)</td>
<td>11.54%</td>
</tr>
<tr>
<td>Other</td>
<td>7.21%</td>
</tr>
<tr>
<td>School counselor</td>
<td>3.37%</td>
</tr>
</tbody>
</table>