2018 Community Health Needs Assessment Report

Hoke, Lee, Montgomery, Moore & Richmond Counties, North Carolina

Prepared for:
FirstHealth of the Carolinas

By:
Professional Research Consultants, Inc.
11326 P Street Omaha, NE 68137-2316
www.PRCCustomResearch.com

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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, 2011, and 2015, 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 that historically have 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 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 FirstHealth of the Carolinas and PRC and is similar to the previous surveys 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 the counties in FirstHealth’s primary service area, including Hoke, Montgomery, Moore, and Richmond counties. The current study effort also includes the ZIP Codes primarily associated with Lee County, where FirstHealth is expanding services. FirstHealth has 59% of the market share in this five-county region in fiscal year 2017. FirstHealth has 86% of the market share in Moore and Richmond counties, followed by 56% and 46% in Montgomery and Hoke counties, respectively. As Lee County is a potential area for growth, FirstHealth has 19% of the market share. 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 1,555 individuals age 18 and older in the Total Area, including a random sample of 1,501 surveys and an African American “oversample” made up of 54 residents (in all, 331 African American respondents were represented in the sample). The distribution by county was as follows: 212 individuals in Hoke County, 307 in Lee County, 206 in Montgomery County, 511 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 PRC.

For statistical purposes, the maximum rate of error associated with a sample size of 1,555 respondents is ±2.5% at the 95 percent confidence level.

**Expected Error Ranges for a Sample of 1,555 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 1,555 respondents answered a certain question with a “yes,” it can be asserted that between 8.5% and 11.5% (10% ± 1.5%) 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 47.5% and 52.5% (50 ± 2.5%) 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. 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 sex, 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 2018 guidelines place the poverty threshold for a family of four at $25,100 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 and earning up to twice (100%-199% of) the poverty threshold; and “mid/high income” refers to those households living on incomes which are twice or more (≥200% of) 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
- North Carolina Department of Health and Human Services, Division of Public Health, State Center for Health Statistics
- 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
Benchmark Data

*Trending*

A similar survey was administered in the Total Area in 1999, 2003, 2007, 2011, and 2015 by PRC on behalf of FirstHealth of the Carolinas. Trending data, as revealed by comparison to prior survey results, are provided throughout this report whenever available (note that because Lee County was not previously surveyed, survey comparisons are made for the "Comparative Area," which excludes Lee County). Historical data for secondary data indicators are also included (for the Total Area) 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 represent the most recent BRFSS (Behavioral Risk Factor Surveillance System) Prevalence and Trends Data published online by the Centers for Disease Control and Prevention. 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 2017 PRC National Health Survey; the methodological approach for the national study is similar 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. For three decades, Healthy People has established benchmarks and monitored progress over time in order to:

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

Healthy People strives to:

- Identify nationwide health improvement priorities.
- Increase public awareness and understanding of the determinants of health, disease, and disability and the opportunities for progress.
- Provide measurable objectives and goals that are applicable at the national, State, and local levels.
- Engage multiple sectors to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge.
- Identify critical research, evaluation, and data collection needs.
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 the purpose of this report, “significance” of secondary data indicators (which do not carry sampling error but might be subject to reporting error) is determined by a 15% 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 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).

The Areas of Opportunity were determined after consideration of various criteria, including: standing in comparison with benchmark data (particularly national data); identified trends; the preponderance of significant findings within topic areas; the magnitude of the issue in terms of the number of persons affected; and the potential health impact of a given issue.

### Areas of Opportunity Identified Through This Assessment

| Access to Healthcare Services | • Primary Care Physician Ratio  
• Emergency Room Utilization  
• Eye Exams |
| --- | --- |
| Cancer | • Cancer is a leading cause of death.  
• Lung Cancer Incidence  
• Prostate Screening [Age 50+]  
• Cervical Cancer Screening [Age 21-65] |
| Dementia, Including Alzheimer's Disease | • Alzheimer's Disease Deaths |
| Diabetes | • Diabetes Deaths  
• Diabetes Prevalence  
• Prevalence of Borderline/Pre-Diabetes |
| Heart Disease & Stroke | • Cardiovascular disease is a leading cause of death.  
• High Blood Pressure Prevalence  
• High Blood Cholesterol Prevalence  
• Overall Cardiovascular Risk |
| HIV/AIDS | • HIV/AIDS Deaths |
| Infant Health & Family Planning | • Infant Deaths  
• Teen Births |
| Injury & Violence | • Unintentional Injury Deaths  
  ○ Including Motor Vehicle Crashes  
• Firearm-Related Deaths  
• Homicide Deaths |
| Mental Health | • Symptoms of Chronic Depression  
• Suicide Deaths |

-continued on next page-
### AOOs Continued

| Nutrition, Physical Activity, & Weight | • Overweight & Obesity [Adults]  
| • Fruit/Vegetable Consumption  
| • Whole Grain Bread Consumption  
| • Leisure-Time Physical Activity  
| • Access to Recreation/Fitness Facilities |
| Potentially Disabling Conditions | • Activity Limitations |
| Respiratory Diseases | • Asthma Prevalence [Adults]  
| • Chronic Obstructive Pulmonary Disease (COPD) Prevalence  
| • Pneumonia/Influenza Deaths |
| Substance Abuse | • Cirrhosis/Liver Disease Deaths  
| • Binge Drinking  
| • Unintentional Drug-Related Deaths  
| • Personally Impacted by Substance Abuse (Self or Other’s) |
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 tables, Total Area results are shown in the larger, blue column. **Tip:**
  - Indicator labels beginning with a “%” symbol are taken from the PRC Community Health Survey; the remaining indicators are taken from secondary data sources.

- The green columns [to the left of the Total Area column] provide comparisons among the five 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 local data compare favorably (◇), unfavorably (◆), or comparably (○) to these external data.

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

---

### TREND SUMMARY
(Current vs. Baseline Data)

**Survey Data Indicators:** Trends for survey-derived indicators represent significant changes since 1999 (or the first year that the indicator was included). Note that survey data reflect the ZIP Code-defined Total Area, and survey trend data reflect the Comparative Area, which does not include Lee County (not included in previous surveys).

**Other (Secondary) Data Indicators:** Trends for other indicators (e.g., public health data) represent point-to-point changes between the most current reporting period and the earliest presented in this report (typically representing the span of roughly a decade).

Note that secondary data reflect county-level data and the Total Area.
## Disparity Among Counties

<table>
<thead>
<tr>
<th>Social Determinants</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistically Isolated Population (Percent)</td>
<td>3.9</td>
<td>6.4</td>
<td>7.4</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Population in Poverty (Percent)</td>
<td>22.9</td>
<td>18.3</td>
<td>21.9</td>
<td>14.7</td>
<td>25.8</td>
</tr>
<tr>
<td>Population Below 200% FPL (Percent)</td>
<td>46.6</td>
<td>39.2</td>
<td>48.6</td>
<td>33.2</td>
<td>51.5</td>
</tr>
<tr>
<td>Children Below 200% FPL (Percent)</td>
<td>56.3</td>
<td>49.4</td>
<td>65.7</td>
<td>45.0</td>
<td>64.1</td>
</tr>
<tr>
<td>No High School Diploma (Age 25+, Percent)</td>
<td>15.4</td>
<td>19.1</td>
<td>23.6</td>
<td>10.4</td>
<td>19.7</td>
</tr>
<tr>
<td>Unemployment Rate (Age 16+, Percent)</td>
<td>5.3</td>
<td>4.6</td>
<td>4.3</td>
<td>4.3</td>
<td>6.1</td>
</tr>
<tr>
<td>% Worry/Stress Over Rent/Mortgage in Past Year</td>
<td>27.6</td>
<td>24.8</td>
<td>30.4</td>
<td>24.9</td>
<td>39.3</td>
</tr>
<tr>
<td>% Written Health Information is &quot;Seldom/Never&quot; Easy to Understand</td>
<td>7.8</td>
<td>6.2</td>
<td>7.0</td>
<td>4.6</td>
<td>8.7</td>
</tr>
<tr>
<td>% Spoken Health Information is &quot;Seldom/Never&quot; Easy to Understand</td>
<td>2.9</td>
<td>5.3</td>
<td>1.2</td>
<td>2.3</td>
<td>5.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Area vs. Benchmarks</th>
<th>Total Area</th>
<th>vs. NC</th>
<th>vs. US</th>
<th>vs. HP2020</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.9</td>
<td>2.9</td>
<td>4.5</td>
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<tr>
<td></td>
<td>19.5</td>
<td></td>
<td>16.9</td>
<td>15.1</td>
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<td></td>
<td>41.5</td>
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<td></td>
<td>53.5</td>
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<td>48.2</td>
<td>43.3</td>
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<td></td>
<td>15.9</td>
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<td>13.7</td>
<td>13.0</td>
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<td></td>
<td>4.8</td>
<td></td>
<td>4.3</td>
<td>4.1</td>
<td>from 5.7 to 4.8</td>
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<td></td>
<td>28.2</td>
<td></td>
<td></td>
<td>30.8</td>
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<td></td>
<td>6.4</td>
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<td></td>
<td>12.2</td>
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<td></td>
<td>3.5</td>
<td></td>
<td></td>
<td>8.3</td>
<td></td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

* Note that trends for survey indicators exclude Lee County.
## Quality of Life

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Total Area vs. Benchmarks</th>
<th>TREND*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Area</td>
<td></td>
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<tr>
<td></td>
<td>vs. NC</td>
<td>us</td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>% Community is a &quot;Fair/Poor&quot; Place to Live</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoke County</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>Lee County</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>12.4</td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>24.0</td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>vs. NC</td>
<td></td>
<td></td>
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<tr>
<td>vs. US</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vs. HP2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TREND*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>from 19.6 to 12.1</td>
<td></td>
</tr>
</tbody>
</table>

% Feel Able to Affect Quality of Community Life |                         |        |            |
| Hoke County               | 76.9                      |        |            |
| Lee County                | 75.2                      |        |            |
| Montgomery County         | 76.8                      |        |            |
| Moore County              | 85.0                      |        |            |
| Richmond County           | 79.0                      |        |            |
| Total Area                | 79.5                      |        |            |
| vs. NC                    |                           |        |            |
| vs. US                    |                           |        |            |
| vs. HP2020                |                           |        |            |
| TREND*                    |                           |        |            |
|                         | from 74.8 to 81           |        |            |

*Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

## Overall Health

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Total Area vs. Benchmarks</th>
<th>TREND*</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Total Area</td>
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<tr>
<td></td>
<td>vs. NC</td>
<td>us</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% &quot;Fair/Poor&quot; Overall Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoke County</td>
<td>24.3</td>
<td></td>
</tr>
<tr>
<td>Lee County</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>14.4</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>32.2</td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>22.3</td>
<td></td>
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<tr>
<td>vs. NC</td>
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<td>vs. US</td>
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<tr>
<td>vs. HP2020</td>
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<tr>
<td>TREND*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>from 21.9 to 23.1</td>
<td></td>
</tr>
</tbody>
</table>

% Activity Limitations |                         |        |            |
| Hoke County               | 34.4                      |        |            |
| Lee County                | 19.4                      |        |            |
| Montgomery County         | 31.4                      |        |            |
| Moore County              | 27.4                      |        |            |
| Richmond County           | 27.8                      |        |            |
| Total Area                | 26.9                      |        |            |
| vs. NC                    |                           |        |            |
| vs. US                    |                           |        |            |
| vs. HP2020                |                           |        |            |
| TREND*                    |                           |        |            |
|                         | from 21.3 to 29.4         |        |            |

% Poor Physical/Mental Health Limited Activities 3+ Days/Past Month |                         |        |            |
| Hoke County               | 25.1                      |        |            |
| Lee County                | 13.2                      |        |            |
| Montgomery County         | 16.9                      |        |            |
| Moore County              | 12.7                      |        |            |
| Richmond County           | 18.4                      |        |            |
| Total Area                | 16.1                      |        |            |
| vs. NC                    |                           |        |            |
| vs. US                    |                           |        |            |
| vs. HP2020                |                           |        |            |
| TREND*                    |                           |        |            |
|                         | from 18.7 to 16.9         |        |            |

*Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

*Note that trends for survey indicators exclude Lee County.
## Community Health Needs Assessment

<table>
<thead>
<tr>
<th>Access to Health Services</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Age 18-64] Lack Health Insurance</td>
<td>☀</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>13.0</td>
<td>18.8 vs. 13.7 vs. 0.0</td>
</tr>
<tr>
<td>% [Age 65+] Have Medicare Supplemental Insurance</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>75.5</td>
<td>☁ 14 vs. 74.9 vs. 74.9</td>
</tr>
<tr>
<td>% Went Without Coverage in Past Year</td>
<td>☀</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>18.0</td>
<td>☁ 17.9 vs. 18.0 vs. 17.9</td>
</tr>
<tr>
<td>% Difficulty Accessing Healthcare in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>34.7</td>
<td>☁ 43.2 vs. 43.2 vs. 17.9</td>
</tr>
<tr>
<td>% Difficulty Finding Physician in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>8.3</td>
<td>☁ 13.4 vs. 13.4 vs. 17.5</td>
</tr>
<tr>
<td>% Difficulty Getting Appointment in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>12.4</td>
<td>☁ 17.5 vs. 17.5 vs. 15.4</td>
</tr>
<tr>
<td>% Cost Prevented Physician Visit in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>12.6</td>
<td>☁ 15.4 vs. 15.4 vs. 8.3</td>
</tr>
<tr>
<td>% Transportation Hindered Dr Visit in Past Year</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>☁</td>
<td>7.4</td>
<td>☁ 8.3 vs. 8.3 vs. 8.3</td>
</tr>
</tbody>
</table>
## Community Health Needs Assessment

<table>
<thead>
<tr>
<th>Access to Health Services (continued)</th>
<th>Disparity Among Counties</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Lee County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>% Inconvenient Hrs Prevented Dr Visit in Past Year</td>
<td>![Cloud] 8.9</td>
<td>![Cloud] 11.9</td>
<td>![Cloud] 10.9</td>
</tr>
<tr>
<td>% Language/Culture Prevented Care in Past Year</td>
<td>![Cloud] 1.8</td>
<td>![Cloud] 1.0</td>
<td>![Cloud] 2.9</td>
</tr>
<tr>
<td>% Cost Prevented Getting Prescription in Past Year</td>
<td>![Cloud] 17.5</td>
<td>![Cloud] 12.9</td>
<td>![Cloud] 15.4</td>
</tr>
<tr>
<td>% Difficulty Getting Child’s Healthcare in Past Year</td>
<td>![Cloud] 1.0</td>
<td>![Cloud] 0.8</td>
<td>![Sun] 5.5</td>
</tr>
<tr>
<td>Primary Care Doctors per 100,000</td>
<td>![Cloud] 9.7</td>
<td>![Cloud] 53.6</td>
<td>![Sun] 29.2</td>
</tr>
<tr>
<td>% Preventive Routine Medical Care is “Very Important”</td>
<td>![Cloud] 86.1</td>
<td>![Sun] 94.6</td>
<td>![Sun] 84.4</td>
</tr>
<tr>
<td>% Have a Regular Source for Medical Care</td>
<td>![Cloud] 92.3</td>
<td>![Cloud] 94.1</td>
<td>![Sun] 97.3</td>
</tr>
<tr>
<td>% Have Had Routine Checkup in Past Year</td>
<td>![Cloud] 81.8</td>
<td>![Sun] 86.5</td>
<td>![Cloud] 81.9</td>
</tr>
<tr>
<td>% Likely to Use Telehealth if Offered</td>
<td>![Cloud] 69.0</td>
<td>![Cloud] 63.7</td>
<td>![Cloud] 60.8</td>
</tr>
<tr>
<td>% Have Access to the Internet for Personal Use</td>
<td>![Cloud] 90.2</td>
<td>![Cloud] 84.0</td>
<td>![Cloud] 85.3</td>
</tr>
</tbody>
</table>
## Access to Health Services (continued)

### % Have a Smartphone

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Have a Smartphone</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
</tr>
<tr>
<td>Total Area</td>
<td>82.5</td>
<td>80.6</td>
<td>77.6</td>
<td>85.0</td>
<td>80.2</td>
</tr>
</tbody>
</table>

### % Two or More ER Visits in Past Year

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Two or More ER Visits in Past Year</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
<td>🌪</td>
</tr>
<tr>
<td>Total Area</td>
<td>14.9</td>
<td>13.3</td>
<td>10.1</td>
<td>9.0</td>
<td>18.9</td>
</tr>
</tbody>
</table>

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*Note that trends for survey indicators exclude Lee County.*

## Cancer

### Cancer (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>178.4</td>
<td>186.0</td>
<td>159.5</td>
<td>144.6</td>
<td>182.1</td>
</tr>
</tbody>
</table>

### Lung Cancer (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung Cancer</td>
<td>44.5</td>
<td>44.2</td>
<td>38.5</td>
<td>45.5</td>
<td></td>
</tr>
</tbody>
</table>

### Prostate Cancer (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Cancer</td>
<td>19.1</td>
<td>19.5</td>
<td>18.9</td>
<td>21.8</td>
<td></td>
</tr>
</tbody>
</table>

### Female Breast Cancer (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast Cancer</td>
<td>21.2</td>
<td>21.1</td>
<td>20.1</td>
<td>20.7</td>
<td></td>
</tr>
</tbody>
</table>

### Colorectal Cancer (Age-Adjusted Death Rate)

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal Cancer</td>
<td>12.7</td>
<td>13.6</td>
<td>13.9</td>
<td>14.5</td>
<td></td>
</tr>
</tbody>
</table>

### Female Breast Cancer Incidence Rate

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female Breast Cancer Incidence Rate</td>
<td>106.8</td>
<td>128.4</td>
<td>110.1</td>
<td>130.1</td>
<td>137.7</td>
</tr>
</tbody>
</table>

### Prostate Cancer Incidence Rate

<table>
<thead>
<tr>
<th>County</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Cancer Incidence Rate</td>
<td>171.1</td>
<td>120.6</td>
<td>156.6</td>
<td>133.7</td>
<td>114.5</td>
</tr>
</tbody>
</table>

### Total Area vs. Benchmarks

|County| Total Area vs. NC| vs. US| vs. HP2020| TRENDS*
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>from 173.2 to 164.4</td>
<td>161.1</td>
<td>155.6</td>
<td>161.4</td>
</tr>
<tr>
<td></td>
<td>from 66.1 to 83.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Cancer (continued)

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung Cancer Incidence Rate</td>
<td>🌊 95.2</td>
<td>✈️ 73.4</td>
<td>🌊 74.5</td>
<td>🌊 72.3</td>
<td>🌊 85.6</td>
</tr>
<tr>
<td>Colorectal Cancer Incidence Rate</td>
<td>🌊 31.8</td>
<td>🌈 45.0</td>
<td>🌊 47.3</td>
<td>🌊 35.2</td>
<td>🌊 42.3</td>
</tr>
<tr>
<td>% Cancer (Other Than Skin)</td>
<td>🌊 7.1</td>
<td>🌊 7.1</td>
<td>🌊 7.2</td>
<td>🌊 9.1</td>
<td>🌊 7.4</td>
</tr>
<tr>
<td>% Skin Cancer</td>
<td>🌊 2.8</td>
<td>🌈 8.1</td>
<td>🌊 12.6</td>
<td>🌊 12.2</td>
<td>🌊 7.5</td>
</tr>
<tr>
<td>% [Men 50+] Prostate Screening in Past 2 Years</td>
<td>🌊 61.8</td>
<td>🌊 69.9</td>
<td>🌊 63.3</td>
<td>🌊 67.5</td>
<td>🌊 54.8</td>
</tr>
<tr>
<td>% [Women 50-74] Mammogram in Past 2 Years</td>
<td>🌊 92.5</td>
<td>🌊 84.8</td>
<td>🌊 86.1</td>
<td>🌈 90.1</td>
<td>🌊 81.6</td>
</tr>
<tr>
<td>% [Women 21-65] Pap Smear in Past 3 Years</td>
<td>🌊 76.2</td>
<td>🌊 83.3</td>
<td>🌊 82.8</td>
<td>🌊 78.6</td>
<td>🌊 82.9</td>
</tr>
<tr>
<td>% [Age 50-75] Colorectal Cancer Screening</td>
<td>🌊 96.3</td>
<td>🌊 83.1</td>
<td>🌊 75.1</td>
<td>🌊 82.9</td>
<td>🌊 76.6</td>
</tr>
</tbody>
</table>

### Total Area vs. Benchmarks

<table>
<thead>
<tr>
<th>Total Area</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.4</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td></td>
</tr>
<tr>
<td>70.0</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td></td>
</tr>
<tr>
<td>39.2</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td></td>
</tr>
<tr>
<td>37.7</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td></td>
</tr>
<tr>
<td>7.8</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 8.4 to 8.1</td>
</tr>
<tr>
<td>6.8</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 9.4 to 9.4</td>
</tr>
<tr>
<td>9.1</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 9.4 to 9.4</td>
</tr>
<tr>
<td>64.5</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 75.1 to 63.1</td>
</tr>
<tr>
<td>86.8</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 83.9 to 87.6</td>
</tr>
<tr>
<td>80.6</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 90 to 79.6</td>
</tr>
<tr>
<td>82.5</td>
<td>🌊 vs. 🌊 US vs. HP2020</td>
<td>🌊 from 81.6 to 82.2</td>
</tr>
</tbody>
</table>

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### Disparities Among Counties

#### Dementias, Including Alzheimer's Disease

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer's Disease (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. NC</td>
<td>47.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. US</td>
<td>36.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. HP2020</td>
<td>30.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Diabetes

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. NC</td>
<td>25.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. US</td>
<td>23.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area vs. HP2020</td>
<td>21.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Note:
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- *Note that trends for survey indicators exclude Lee County.*
<table>
<thead>
<tr>
<th>Diabetes (continued)</th>
<th>Hoke County</th>
<th>Lee 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>TEND*</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Diabetics] Taken Diabetes Management Course</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>53.2</td>
<td>![Icon] from 51.2 to ![Icon] 51.8</td>
<td></td>
</tr>
<tr>
<td>% Blood Sugar Tested in Past 3 Years</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>91.3</td>
<td>![Icon] from 88.8 to ![Icon] 90.9</td>
<td></td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

<table>
<thead>
<tr>
<th>Heart Disease &amp; Stroke</th>
<th>Hoke County</th>
<th>Lee 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>TEND*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the Heart (Age-Adjusted Death Rate)</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>170.7</td>
<td>![Icon] from 180.1 to ![Icon] 170.7</td>
<td></td>
</tr>
<tr>
<td>Stroke (Age-Adjusted Death Rate)</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>41.8</td>
<td>![Icon] from 47 to ![Icon] 41.8</td>
<td></td>
</tr>
<tr>
<td>% Heart Disease (Heart Attack, Angina, Coronary Disease)</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>8.3</td>
<td>![Icon] from 8.1 to ![Icon] 8.5</td>
<td></td>
</tr>
<tr>
<td>% Stroke</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>4.1</td>
<td>![Icon] from 4.2 to ![Icon] 4.5</td>
<td></td>
</tr>
<tr>
<td>% Blood Pressure Checked in Past 2 Years</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>97.4</td>
<td>![Icon] from 95.5 to ![Icon] 97.9</td>
<td></td>
</tr>
<tr>
<td>% Told Have High Blood Pressure (Ever)</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>![Icon]</td>
<td>47.0</td>
<td>![Icon] from 32.9 to ![Icon] 47.7</td>
<td></td>
</tr>
</tbody>
</table>
## Community Health Needs Assessment

### Disparity Among Counties

<table>
<thead>
<tr>
<th>Heart Disease &amp; Stroke (continued)</th>
<th>Disparity Among Counties</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Lee County</td>
</tr>
<tr>
<td>% [HBP] Taking Action to Control High Blood Pressure</td>
<td>🌟</td>
<td>🌟</td>
</tr>
<tr>
<td>% Cholesterol Checked in Past 5 Years</td>
<td>🌟</td>
<td>🌟</td>
</tr>
<tr>
<td>% Told Have High Cholesterol (Ever)</td>
<td>🌟</td>
<td>🌟</td>
</tr>
<tr>
<td>% [HBC] Taking Action to Control High Blood Cholesterol</td>
<td>🌟</td>
<td>🌟</td>
</tr>
<tr>
<td>% 1+ Cardiovascular Risk Factor</td>
<td>🌟</td>
<td>🌟</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>HIV</th>
<th>Disparity Among Counties</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hoke County</td>
<td>Lee County</td>
</tr>
<tr>
<td>HIV/AIDS (Age-Adjusted Death Rate)</td>
<td>🌟</td>
<td>🌟</td>
</tr>
<tr>
<td>HIV Prevalence Rate</td>
<td>🌟</td>
<td>🌟</td>
</tr>
</tbody>
</table>

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* Note that trends for survey indicators exclude Lee County.
### Disparity Among Counties

#### Immunization & Infectious Diseases

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% [Age 65+] Flu Vaccine in Past Year</td>
<td>🌞</td>
<td>☁️</td>
<td>🌞</td>
<td>🌞</td>
<td>🌞</td>
</tr>
<tr>
<td></td>
<td>56.5</td>
<td>69.6</td>
<td>70.1</td>
<td>82.0</td>
<td>63.4</td>
</tr>
<tr>
<td>% [High-Risk 18-64] Flu Vaccine in Past Year</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td></td>
<td>52.2</td>
<td>50.0</td>
<td>50.6</td>
<td>54.7</td>
<td></td>
</tr>
<tr>
<td>% [Age 65+] Pneumonia Vaccine Ever</td>
<td>☁️</td>
<td>☁️</td>
<td>🌞</td>
<td>🌞</td>
<td>☁️</td>
</tr>
<tr>
<td></td>
<td>78.3</td>
<td>83.1</td>
<td>84.2</td>
<td>88.0</td>
<td>70.7</td>
</tr>
<tr>
<td>% [High-Risk 18-64] Pneumonia Vaccine Ever</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td></td>
<td>55.4</td>
<td>48.1</td>
<td>48.9</td>
<td>66.7</td>
<td></td>
</tr>
</tbody>
</table>

#### Infant Health & Family Planning

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Prenatal Care in First Trimester (Percent)</td>
<td>🌞</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td></td>
<td>27.5</td>
<td>37.3</td>
<td>32.6</td>
<td>32.6</td>
<td>39.9</td>
</tr>
<tr>
<td>Low Birthweight Births (Percent)</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td></td>
<td>9.1</td>
<td>10.0</td>
<td>8.4</td>
<td>8.0</td>
<td>10.3</td>
</tr>
</tbody>
</table>

#### Total Area vs. Benchmarks

<table>
<thead>
<tr>
<th></th>
<th>Total Area</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
</table>

*Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.*

*Note that trends for survey indicators exclude Lee County.*
### Infant Health & Family Planning (cont.)

#### Disparity Among Counties

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Lee 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>TRENDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infant Death Rate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.4</td>
<td>7.2 5.8 6.0</td>
<td>from 6.8 to 8.4</td>
</tr>
<tr>
<td><strong>Teen Births per 1,000 (Age 15-19)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58.8</td>
<td>41.7 36.6</td>
<td>from 67.5 to 58.76</td>
</tr>
</tbody>
</table>

#### Note:
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### Injury & Violence

#### Disparity Among Counties

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Hoke County</th>
<th>Lee 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>TRENDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unintentional Injury (Age-Adjusted Death Rate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55.4</td>
<td>52.1 46.7 36.4</td>
<td>from 50.7 to 55.4</td>
</tr>
<tr>
<td><strong>Motor Vehicle Crashes (Age-Adjusted Death Rate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.1</td>
<td>14.2 11.4 12.4</td>
<td></td>
</tr>
<tr>
<td><strong>[65+] Falls (Age-Adjusted Death Rate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47.4</td>
<td>74.9 62.1 47.0</td>
<td></td>
</tr>
<tr>
<td><strong>Firearm-Related Deaths (Age-Adjusted Death Rate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.8</td>
<td>13.3 11.6 9.3</td>
<td></td>
</tr>
<tr>
<td><strong>Homicide (Age-Adjusted Death Rate)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.9</td>
<td>6.8 6.0 5.5</td>
<td>from 10.2 to 7.9</td>
</tr>
<tr>
<td><strong>Violent Crime Rate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>212.1</td>
<td>334.5 379.7</td>
<td></td>
</tr>
</tbody>
</table>
### Injury & Violence (continued)

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee 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>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Victim of Violent Crime in Past 5 Years</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☀️</td>
<td>☁️</td>
<td>2.7</td>
<td>☁️</td>
<td>HP2020 from 5 to 2.9</td>
</tr>
<tr>
<td>% Households with 1+ Working Smoke Detector</td>
<td>☀️</td>
<td>☁️</td>
<td>☁️</td>
<td>☀️</td>
<td>☁️</td>
<td>96.9</td>
<td>☁️</td>
<td></td>
</tr>
<tr>
<td>% Households with 1+ Working Carbon Monoxide Detector</td>
<td>☁️</td>
<td>☁️</td>
<td>☀️</td>
<td>☀️</td>
<td>☁️</td>
<td>61.2</td>
<td>☁️</td>
<td></td>
</tr>
<tr>
<td>% Households with Family Emergency Plan</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>65.8</td>
<td>☁️</td>
<td></td>
</tr>
<tr>
<td>% Households with Emergency Kit</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>65.9</td>
<td>☁️</td>
<td></td>
</tr>
</tbody>
</table>

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### Kidney Disease

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee 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>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney Disease (Age-Adjusted Death Rate)</td>
<td>☁️</td>
<td>☁️</td>
<td>☀️</td>
<td>☁️</td>
<td>☁️</td>
<td>15.1</td>
<td>☁️</td>
<td>HP2020 from 17.6 to 15.1</td>
</tr>
<tr>
<td>% Kidney Disease</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>☁️</td>
<td>4.6</td>
<td>☁️</td>
<td>HP2020 from 4.2 to 4.9</td>
</tr>
</tbody>
</table>

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## Mental Health

<table>
<thead>
<tr>
<th>Mental Health</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>% &quot;Fair/Poor&quot; Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.0</td>
<td>10.3</td>
<td>17.7</td>
<td>6.7</td>
<td>18.7</td>
<td>12.2</td>
</tr>
<tr>
<td>% 3+ Days of Poor Mental Health in Past Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.0</td>
</tr>
<tr>
<td></td>
<td>34.0</td>
<td>18.8</td>
<td>23.5</td>
<td>18.1</td>
<td>28.9</td>
<td>from 12.8 to 12.9</td>
</tr>
<tr>
<td>% Symptoms of Chronic Depression (2+ Years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>39.7</td>
<td>29.4</td>
<td>33.4</td>
<td>27.5</td>
<td>44.7</td>
<td>33.2</td>
</tr>
<tr>
<td>% 3+ Days Worried, Tense, or Anxious in Past Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>51.3</td>
<td>35.5</td>
<td>36.7</td>
<td>38.0</td>
<td>45.9</td>
<td>from 42.1 to 42.2</td>
</tr>
<tr>
<td>Suicide (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13.1</td>
<td>15.1</td>
<td>17.9</td>
<td>14.2</td>
<td></td>
<td>15.5</td>
</tr>
<tr>
<td>% Have Ever Sought Help for Mental Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>38.7</td>
<td>20.8</td>
<td>30.5</td>
<td>25.3</td>
<td>30.8</td>
<td>27.5</td>
</tr>
<tr>
<td>% Unable to Get Mental Health Svcs in Past Yr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30.8</td>
</tr>
<tr>
<td></td>
<td>1.9</td>
<td>4.4</td>
<td>3.0</td>
<td>1.8</td>
<td>3.2</td>
<td>2.8</td>
</tr>
</tbody>
</table>

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* Note that trends for survey indicators exclude Lee County.
<table>
<thead>
<tr>
<th>Nutrition, Physical Activity &amp; Weight</th>
<th>Hoke County</th>
<th>Lee 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>% Food Insecure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.6</td>
<td>27.9</td>
<td></td>
</tr>
<tr>
<td>% Eat 2+ Servings of Fruit Per Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19.8</td>
<td>from 43.6 to 18.1</td>
<td></td>
</tr>
<tr>
<td>% Eat 3+ Servings of Vegetables Per Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.5</td>
<td>from 19.9 to 15.2</td>
<td></td>
</tr>
<tr>
<td>% &quot;Very/Somewhat&quot; Difficult to Buy Fresh Produce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population With Low Food Access (Percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.3</td>
<td>22.1</td>
<td></td>
</tr>
<tr>
<td>% Eat 2+ Servings of Whole Grain Bread Per Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.0</td>
<td>from 35.7 to 12.8</td>
<td></td>
</tr>
<tr>
<td>% Consumed 1+ Sugar-Sweetened Beverage Yesterday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56.1</td>
<td>from 57.2 to 58</td>
<td></td>
</tr>
<tr>
<td>% &lt;4 Days/Week Eating Meals Prepared at Home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.9</td>
<td>from 12.3 to 14.3</td>
<td></td>
</tr>
<tr>
<td>% No Leisure-Time Physical Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29.9</td>
<td>25.6, 26.2, 32.6, 30.1</td>
<td></td>
</tr>
<tr>
<td>% Meeting Physical Activity Guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.0</td>
<td>18.8, 22.8, 20.1</td>
<td></td>
</tr>
</tbody>
</table>
### Nutrition, Physical Activity & Weight (cont.)

#### Disparity Among Counties

| Nutrition, Physical Activity & Weight | Hoke County | Lee County | Montgomery County | Moore County | Richmond County | Total Area vs. NC | Total Area vs. US | Total Area vs. HP2020 | TENDENCY
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Child [Age 2-17] Physically Active 1+ Hours per Day</td>
<td>☀️ 62.4</td>
<td>☁️ 47.4</td>
<td>☁️ 48.2</td>
<td>☀️ 70.2</td>
<td>☁️ 50.5</td>
<td>from 32.5 to 31.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Have a Park/Playground Within Walking Distance of Home</td>
<td>☁️ 25.7</td>
<td>☁️ 29.0</td>
<td>☀️ 32.0</td>
<td>☁️ 36.5</td>
<td>☁️ 28.2</td>
<td>from 20.9 to 20.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Can Purchase Healthy Foods Within Walking Distance of Home</td>
<td>☁️ 15.9</td>
<td>☁️ 22.5</td>
<td>☀️ 27.9</td>
<td>☁️ 20.9</td>
<td>☁️ 20.7</td>
<td>from 20.8 to 20.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Neighborhood Is Safe for Walking During the Day</td>
<td>☁️ 88.7</td>
<td>☁️ 90.8</td>
<td>☀️ 85.8</td>
<td>☁️ 91.7</td>
<td>☁️ 92.1</td>
<td>from 91.5 to 90.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Neighborhood Is Safe For Walking at Night</td>
<td>☁️ 61.3</td>
<td>☁️ 58.7</td>
<td>☀️ 47.7</td>
<td>☁️ 60.2</td>
<td>☁️ 52.3</td>
<td>from 58 to 57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Neighborhood Has Adequate Lighting</td>
<td>☀️ 63.8</td>
<td>☁️ 53.5</td>
<td>☀️ 45.4</td>
<td>☁️ 43.0</td>
<td>☀️ 59.0</td>
<td>from 53.6 to 51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Neighborhood Has Safe Crosswalks</td>
<td>☁️ 28.4</td>
<td>☁️ 30.3</td>
<td>☀️ 32.8</td>
<td>☁️ 31.8</td>
<td>☁️ 28.4</td>
<td>from 29.6 to 30.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Neighborhood Has Good Sidewalks</td>
<td>☁️ 20.8</td>
<td>☁️ 18.3</td>
<td>☀️ 28.5</td>
<td>☁️ 16.4</td>
<td>☀️ 25.1</td>
<td>from 21.8 to 20.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreation/Fitness Facilities per 100,000</td>
<td>☁️ 6.4</td>
<td>☀️ 13.8</td>
<td>☁️ 0.0</td>
<td>☁️ 5.7</td>
<td>☁️ 4.3</td>
<td>from 6.7 to 11.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 3+ Hours of Screen Time Per Day</td>
<td>☁️ 54.5</td>
<td>☁️ 55.8</td>
<td>☁️ 52.9</td>
<td>☁️ 51.0</td>
<td>☀️ 58.8</td>
<td>from 54.2 to 53.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Nutrition, Physical Activity & Weight (cont.)

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Healthy Weight (BMI 18.5-24.9)</td>
<td>☀️</td>
<td>🍃</td>
<td>🌩</td>
<td>☀️</td>
<td>☁️</td>
</tr>
<tr>
<td>Total Area vs. NC vs. US vs. HP2020</td>
<td>21.6</td>
<td>31.3</td>
<td>30.3</td>
<td>33.9</td>
<td>from 35.1 to 23</td>
</tr>
<tr>
<td>% Overweight (BMI 25+)</td>
<td>☁️</td>
<td>🍃</td>
<td>☀️</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td>Total Area vs. NC vs. US vs. HP2020</td>
<td>76.8</td>
<td>66.9</td>
<td>67.8</td>
<td>62.9 to 75.1</td>
<td></td>
</tr>
<tr>
<td>% Obese (BMI 30+)</td>
<td>☁️</td>
<td>🍃</td>
<td>🌩</td>
<td>☁️</td>
<td>☁️</td>
</tr>
<tr>
<td>Total Area vs. NC vs. US vs. HP2020</td>
<td>42.5</td>
<td>32.1</td>
<td>32.8</td>
<td>30.5</td>
<td>from 24.7 to 40.1</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

* Note that trends for survey indicators exclude Lee County.
### Disparity Among Counties

<table>
<thead>
<tr>
<th>Oral Health</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Have Dental Insurance</td>
<td>☀️ 61.9</td>
<td>☁️ 60.1</td>
<td>☁️ 58.0</td>
<td>☁️ 59.9</td>
<td>☁️ 59.9</td>
</tr>
<tr>
<td>% [Age 18+] Dental Visit in Past Year</td>
<td>☁️ 66.8</td>
<td>☀️ 71.8</td>
<td>☁️ 48.5</td>
<td>☁️ 49.0</td>
<td>☁️ 49.0</td>
</tr>
</tbody>
</table>

**Note:** In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

<table>
<thead>
<tr>
<th>Respiratory Diseases</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLRD (Age-Adjusted Death Rate)</td>
<td>☁️ 45.2</td>
<td>☁️ 45.2</td>
<td>☁️ 41.0</td>
<td>☁️ 46.7</td>
<td>☁️ 46.7</td>
</tr>
<tr>
<td>Pneumonia/Influenza (Age-Adjusted Death Rate)</td>
<td>☁️ 15.6</td>
<td>☁️ 17.6</td>
<td>☁️ 14.3</td>
<td>☁️ 16.7</td>
<td>☁️ 16.7</td>
</tr>
<tr>
<td>% Adults Asthma (Ever Diagnosed)</td>
<td>☁️ 17.4</td>
<td>☁️ 13.6</td>
<td>☁️ 19.4</td>
<td>☁️ 18.7</td>
<td>☁️ 18.7</td>
</tr>
<tr>
<td>% COPD (Lung Disease)</td>
<td>☁️ 12.5</td>
<td>☁️ 7.8</td>
<td>☁️ 8.6</td>
<td>☁️ 13.9</td>
<td>☁️ 13.9</td>
</tr>
</tbody>
</table>

**Note:** In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

*Note that trends for survey indicators exclude Lee County.*
### Sexually Transmitted Diseases

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>vs. NC</td>
<td>vs. US</td>
</tr>
<tr>
<td>Chlamydia Incidence Rate</td>
<td>551.4</td>
<td>413.2</td>
<td>388.1</td>
<td>294.8</td>
<td>700.4</td>
<td>445.2</td>
<td>478.6</td>
</tr>
<tr>
<td>Gonorrhea Incidence Rate</td>
<td>181.2</td>
<td>107.9</td>
<td>119.7</td>
<td>86.3</td>
<td>131.5</td>
<td>119.4</td>
<td>146.4</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

### Substance Abuse

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>vs. NC</td>
<td>vs. US</td>
</tr>
<tr>
<td>Unintentional Drug-Related Deaths (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15.3</td>
<td>17.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 9.8 to 15.3</td>
<td></td>
</tr>
<tr>
<td>Cirrhosis/Liver Disease (Age-Adjusted Death Rate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.6</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 7.2 to 13.6</td>
<td></td>
</tr>
<tr>
<td>% Current Drinker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47.2</td>
<td>50.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 32 to 47.7</td>
<td></td>
</tr>
<tr>
<td>% Binge Drinker (Single Occasion - 5+ Drinks Men, 4+ Women)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.0</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 7.5 to 12.6</td>
<td></td>
</tr>
<tr>
<td>% Excessive Drinker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.0</td>
<td>22.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 15.2 to 16.7</td>
<td></td>
</tr>
<tr>
<td>% Illicit Drug Use in Past Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.2</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>from 3.8 to 1.1</td>
<td></td>
</tr>
</tbody>
</table>

* Note that trends for survey indicators exclude Lee County.
### Substance Abuse (continued)

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Illegal Drug Use by Member of HH in Past Year</td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td>5.1</td>
<td><img src="images/from.png" alt="from 3 to 4.3" /></td>
</tr>
<tr>
<td>% Prescription Drug Misuse by Member of HH in Past Year</td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td>2.7</td>
<td><img src="images/from.png" alt="from 3.4 to 2.7" /></td>
</tr>
<tr>
<td>% Ever Sought Help for Alcohol or Drug Problem</td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td>4.4</td>
<td><img src="images/from.png" alt="from 3.5 to 5" /></td>
</tr>
<tr>
<td>% Life Negatively Affected by Substance Abuse</td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td>41.6</td>
<td><img src="images/from.png" alt="from 3 to 4.3" /></td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

### Tobacco Use

<table>
<thead>
<tr>
<th>Disparity Among Counties</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area vs. Benchmarks</th>
<th>TRENDS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Current Smoker</td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td><img src="images/better.png" alt="Better" /></td>
<td>15.2</td>
<td><img src="images/from.png" alt="from 27 to 15.6" /></td>
</tr>
<tr>
<td>% [Smokers] Have Quit Smoking 1+ Days in Past Year</td>
<td>25.6</td>
<td>14.1</td>
<td>13.3</td>
<td>9.1</td>
<td>21.1</td>
<td><img src="images/from.png" alt="from 34.7 to 80.0" /></td>
<td><img src="images/from.png" alt="from 53.7 to 57.7" /></td>
</tr>
</tbody>
</table>
### Disparity Among Counties

#### Tobacco Use (continued)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>County</th>
<th>Lee 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>% Regularly Exposed to Secondhand Smoke</td>
<td>Hoke County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.4</td>
<td>19.3</td>
<td>13.2</td>
</tr>
<tr>
<td>% Currently Use Vaping Products</td>
<td>Hoke County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.2</td>
<td>3.4</td>
<td>1.9</td>
</tr>
</tbody>
</table>

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* Note that trends for survey indicators exclude Lee County.

#### Vision

<table>
<thead>
<tr>
<th>Indicator</th>
<th>County</th>
<th>Lee 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>% Eye Exam in Past 2 Years</td>
<td>Hoke County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61.4</td>
<td>64.5</td>
<td>72.9</td>
</tr>
</tbody>
</table>

Note: In the green section, each county is compared against all others combined. Throughout these tables, a blank or empty cell indicates that data are not available for this indicator or that sample sizes are too small to provide meaningful results.

* Note that trends for survey indicators exclude Lee County.
Community Description
Population Characteristics

Total Population

The Total Area, the focus of this Community Health Needs Assessment, encompasses 2,308.33 square miles and houses a total population of 277,648 residents, according to latest census estimates.

<table>
<thead>
<tr>
<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>51,853</td>
<td>390.11</td>
</tr>
<tr>
<td>Lee County</td>
<td>59,540</td>
<td>255.05</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>27,475</td>
<td>491.52</td>
</tr>
<tr>
<td>Moore County</td>
<td>93,070</td>
<td>697.67</td>
</tr>
<tr>
<td>Richmond County</td>
<td>45,710</td>
<td>473.98</td>
</tr>
<tr>
<td>Total Area</td>
<td>277,648</td>
<td>2,308.33</td>
</tr>
<tr>
<td>North Carolina</td>
<td>9,940,828</td>
<td>48,618.49</td>
</tr>
<tr>
<td>United States</td>
<td>318,558,162</td>
<td>3,532,068.58</td>
</tr>
</tbody>
</table>

Sources:  
- US Census Bureau American Community Survey 5-year estimates.  

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 36,646 persons, or 15.9%.

- A lesser proportional increase than seen across the state, though higher than the nation overall.
Change in Total Population
(Percentage Change Between 2000 and 2010)

Sources:

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

Note the pockets of dark green in parts of Hoke, Lee, Montgomery, and Moore counties.
**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 slightly more urban than rural, with 50.5% of the population living in areas designated as urban.

- Note that at least 66% of the state and national populations live in urban areas.

### 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.

**Age**

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

In the Total Area, 24.1% of the population are infants, children, or adolescents (age 0-17); another 58.7% are age 18 to 64, while 17.2% are age 65 and older.

- The percentage of older adults (65+) is statistically similar to that found statewide.
- The percentage of older adults (65+) is higher than the US figure.
Total Population by Age Groups, Percent
(2012-2016)

<table>
<thead>
<tr>
<th>Age 0-17</th>
<th>Age 18-64</th>
<th>Age 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>Lee County</td>
<td>Montgomery County</td>
</tr>
<tr>
<td>23.6%</td>
<td>8.2%</td>
<td>63.9%</td>
</tr>
<tr>
<td>25.3%</td>
<td>15.1%</td>
<td>18.4%</td>
</tr>
<tr>
<td>23.2%</td>
<td>22.2%</td>
<td>23.6%</td>
</tr>
</tbody>
</table>


Median Age

Moore, Montgomery, and Richmond counties are “older” than the state and the nation in that the median age is higher, whereas Hoke and Lee counties are “younger.”

Median Age
(2012-2016)

<table>
<thead>
<tr>
<th>Median Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
</tr>
<tr>
<td>Lee County</td>
</tr>
<tr>
<td>Montgomery County</td>
</tr>
<tr>
<td>Moore County</td>
</tr>
<tr>
<td>Richmond County</td>
</tr>
<tr>
<td>NC</td>
</tr>
<tr>
<td>US</td>
</tr>
</tbody>
</table>


- The following map provides an illustration of the median age in the Total Area, segmented by census tract.
Race & Ethnicity

Race

In looking at race independent of ethnicity (Hispanic or Latino origin), 69.3% of residents of the Total Area are White, and 21.6% are Black.

- This is generally similar to the state racial distribution.
- Nationally, the US population is more Black and more “other” race.

Total Population by Race Alone, Percent (2012-2016)

**Ethnicity**

A total of 11.1% of Total Area residents are Hispanic or Latino.

- Higher than state percentage.
- Lower than seen nationwide.
- Highest in Lee County.

**Hispanic Population**

*(2012-2016)*

Note the following map of Hispanic population by census tract.

**Notes:**
- Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person’s parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

**Sources:**
- US Census Bureau American Community Survey 5-year estimates.
Between 2000 and 2010, the Hispanic population in the Total Area increased by 13,100 or 86.0%. 

- Lower (in terms of percentage growth) than found statewide.
- Over double that seen nationally.
- Highest in Hoke County.

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

![Bar chart showing Hispanic population change](chart)

Sources: 

**Linguistic Isolation**
A total of 3.9% of the Total Area population age 5 and older live in a home in which no person age 14 or older is proficient in English (speaking only English, or speaking English “very well”).

- Higher than found statewide.
- Lower than found nationally.
- Highest in Lee and Montgomery counties.
Linguistically Isolated Population
(2012-2016)


Notes: This indicator reports the percentage of the population age 5+ who live in a home in which no person age 14+ speaks only English, or in which no person age 14+ speak a non-English language and speak English “very well.”

- Note the following map illustrating linguistic isolation in the Total Area.
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 19.5% of the Total Area population living below the federal poverty level.

In all, 41.5% of Total Area residents (an estimated 112,741 individuals) live below 200% of the federal poverty level.

- Similar to the proportion reported statewide.
- Above that found nationally.

Population in Poverty

(Populations Living Below 100% and Below 200% of the Poverty Level; 2012-2016)

<table>
<thead>
<tr>
<th>Population</th>
<th>&lt;100% of Poverty</th>
<th>&lt;200% of Poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>22.9%</td>
<td>46.6%</td>
</tr>
<tr>
<td>Lee County</td>
<td>18.3%</td>
<td>39.2%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>21.9%</td>
<td>48.6%</td>
</tr>
<tr>
<td>Moore County</td>
<td>14.7%</td>
<td>33.2%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>25.8%</td>
<td>51.5%</td>
</tr>
<tr>
<td>Total Area</td>
<td>19.5%</td>
<td>41.5%</td>
</tr>
<tr>
<td>NC</td>
<td>16.9%</td>
<td>37.7%</td>
</tr>
<tr>
<td>US</td>
<td>15.1%</td>
<td>33.6%</td>
</tr>
</tbody>
</table>

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 map illustrates the poverty distribution in the Total Area, segmented by census tracts.
Children in Low-Income Households

Additionally, over half (53.5%) of Total Area children age 0-17 (representing an estimated 35,391 children) live below the 200% poverty threshold.

- Similar to the proportion found statewide.
- Above the proportion found nationally.

Percent of Children in Low-Income Households
(Children 0-17 Living Below 200% of the Poverty Level, 2012-2016)


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.
• The concentration of children in lower-income households is shown in the following map.

Education
Among the Total Area population age 25 and older, an estimated 15.9% (over 30,128 people) do not have a high school education.

• Comparable to that found statewide.
• Less favorable than found nationally.

Population With No High School Diploma
(Population Age 25+ Without a High School Diploma or Equivalent, 2012-2016)

Sources:
• US Census Bureau American Community Survey 5-year estimates.

Notes:
• This indicator is relevant because educational attainment is linked to positive health outcomes.
Geographically, this indicator is more concentrated outside of central Moore County.

Employment

According to data derived from the US Department of Labor, the unemployment rate in the Total Area as of March 2018 was 4.8%.

- Statistically comparable to the statewide and national unemployment rates.
- TREND: Unemployment for the Total Area has trended downward since 2010, echoing the state and national trends.

Unemployment Rate

(Percent of Non-Institutionalized Population Age 16+ Unemployed, Not Seasonally-Adjusted)

Sources:

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.
Housing Insecurity

While most surveyed adults rarely, if ever, worry about the cost of housing, a considerable share (28.2%) reported that they were “sometimes,” “usually,” or “always” worried or stressed about having enough money to pay their rent or mortgage in the past year.

**Frequency of Worry or Stress Over Paying Rent/Mortgage in the Past Year**

(Total Area, 2018)

```
<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>7.8%</td>
</tr>
<tr>
<td>Usually</td>
<td>4.0%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>16.4%</td>
</tr>
<tr>
<td>Rarely</td>
<td>17.3%</td>
</tr>
<tr>
<td>Never</td>
<td>54.5%</td>
</tr>
</tbody>
</table>
```

- The Total Area proportion of adults who worried about paying for rent or mortgage in the past year is similar to the US prevalence.
- Housing insecurity appears highest in Richmond County.

**“Always/Usually/Sometimes” Worried About Paying Rent/Mortgage in the Past Year**

```
<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>27.6%</td>
</tr>
<tr>
<td>Lee County</td>
<td>24.8%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>30.4%</td>
</tr>
<tr>
<td>Moore County</td>
<td>24.9%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>39.3%</td>
</tr>
<tr>
<td>Total Area</td>
<td>28.2%</td>
</tr>
<tr>
<td>US</td>
<td>30.8%</td>
</tr>
</tbody>
</table>
```

NOTE:
Differences noted in the text represent significant differences determined through statistical testing.

Where sample sizes permit, county-level data are provided.
Adults more likely to report housing insecurity include:

- Women.
- Younger adults (age 18-39).
- Residents living at lower incomes (strong negative correlation with income).
- Black residents.

“Always/Usually/Sometimes” Worried About Paying Rent/Mortgage in the Past Year
(Total Area, 2018)

Food Insecurity

In the past year, 18.3% of Total Area adults “often” or “sometimes” worried about whether their food would run out before they had money to buy more.

- Lower than seen nationally.

Another 15.9% report a time in the past year (“often” or “sometimes”) when the food they bought just did not last, and they did not have money to get more.

- Lower than seen nationally.
Food Insecurity
(Total Area, 2018)

Overall, one in five community residents (20.6%) are determined to be “food insecure,” having run out of food in the past year and/or been worried about running out of food.

- Compared to US data, food insecurity in the Total Area is lower.
Adults more likely affected by food insecurity include:

- Women.
- Younger adults.
- Residents living at lower incomes (strong negative correlation with income).
- Non-White residents.

### Food Insecurity
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.5%</td>
<td>23.4%</td>
<td>23.9%</td>
<td>20.8%</td>
<td>14.3%</td>
<td>53.1%</td>
<td>34.2%</td>
<td>14.4%</td>
<td>34.7%</td>
<td>28.1%</td>
<td>30.6%</td>
<td>20.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 149]

**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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- Includes adults who A) ran out of food at least once in the past year and/or B) worried about running out of food in the past year.
Health Literacy

Understanding Written & Spoken Health Information

While a majority of Total Area adults generally find health information to be easy to understand, 6.4% experience considerable difficulty with written health information and 3.5% experience considerable difficulty with spoken health information (responding “seldom” or “never” easy to understand).

Frequency With Which Health Information Is _______ in a Way That is Easy to Understand
(Total Area, 2018)

Respondents were read:
“You can find written health information on the internet, in newspapers and magazines, on medications, at the doctor’s office, in clinics, and many other places.

How often is health information written in a way that is easy for you to understand?

How often is health information spoken in a way that is easy for you to understand?”

Written

Spoken

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 74, 76]
Notes: Asked of all respondents.
Community Perceptions

Community as a Place to Live

A total of 62.6% of Total Area adults rate their community as an “excellent” or “very good” place in which to live.

- Another 25.3% gave “good” ratings of their community as a place to live.

However, 12.1% of Total Area adults believe that their community is a “fair” or “poor” place in which to live.

- Note the discrepancy in “fair/poor” ratings between Moore and Richmond counties (4.7% and 24.0%, respectively).
- TREND: Marks an improvement since first measured in 2003.

**Rating of the Community as a Place to Live**

(Total Area, 2018)

- Excellent: 28.4%
- Very Good: 34.2%
- Good: 25.3%
- Fair: 9.7%
- Poor: 2.4%

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 302]

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

**NOTE:**
Trends are for the Comparative Area, which matches the current survey area to that of past assessments (i.e., excluding Lee County).
### Perceive the Community as a “Fair/Poor” Place to Live

**Sources:** 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 302]

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

#### Comparative Area

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>15.0%</td>
<td>12.1%</td>
<td>12.4%</td>
<td>4.7%</td>
<td>24.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2007</td>
<td>12.1%</td>
<td>12.4%</td>
<td>12.4%</td>
<td>4.7%</td>
<td>24.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2011</td>
<td>12.1%</td>
<td>12.4%</td>
<td>12.4%</td>
<td>4.7%</td>
<td>24.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2015</td>
<td>12.1%</td>
<td>12.4%</td>
<td>12.4%</td>
<td>4.7%</td>
<td>24.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>2018</td>
<td>19.4%</td>
<td>18.2%</td>
<td>16.4%</td>
<td>15.7%</td>
<td>12.1%</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

#### Perceive the Community as a “Fair/Poor” Place to Live (Total Area, 2018)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Income Category</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Low Income</td>
<td>13.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Low Income</td>
<td>15.9%</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>Mid/High Income</td>
<td>11.8%</td>
<td>6.4%</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>16.3%</td>
<td>17.6%</td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>8.6%</td>
<td>11.5%</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>15.5%</td>
<td>9.9%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>15.9%</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

**Sources:** 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 302]

**Notes:**
- Adults under age 65 (particularly those under age 40) and residents living below 200% of poverty are more likely to give “fair/poor” ratings.
- Note that “Other” race respondents are far less likely to give these types of ratings than other racial/ethnic groups.
Ability to Affect Community Life

More than three-fourths (79.5%) of Total Area adults feel that they, as individuals, are able to affect the quality of life in their own community.

- Lowest in Lee County and highest in Moore County.
- TREND: A steady increase in reported ability since first measured in 2003.

Perceived Ability to Affect the Quality of Community Life

| Source: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 303] |
| Notes: Asked of all respondents; Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County. |

Adults less likely to feel they can affect local quality of life includes Hispanics and those at lower incomes.

Perceived Ability to Affect the Quality of Community Life

(Total Area, 2018)

| Source: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 303] |
| 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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

Evaluation of Health Status

A total of 46.6% of Total Area adults rate their overall health as “excellent” or “very good.”

- Another 31.1% gave “good” ratings of their overall health.

![Self-Reported Health Status](image)

- Poor 5.2%
- Fair 17.1%
- Good 31.1%
- Very Good 30.5%
- Excellent 16.1%

However, 22.3% of Total Area adults believe that their overall health is “fair” or “poor.”

- Worse than statewide and national findings.
- Least favorable in Montgomery and Richmond counties.
- TREND: No statistically significant change has occurred when comparing “fair/poor” overall health reports to previous survey results.
Experience “Fair” or “Poor” Overall Health

- Blacks residents and those living at lower incomes are more likely to report experiencing “fair” or “poor” overall health.

Experience “Fair” or “Poor” Overall Health
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2017 North Carolina data.
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

Notes:
- Blacks residents and those living at lower incomes are more likely to report experiencing “fair” or “poor” overall health.

Experience “Fair” or “Poor” Overall Health
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 5]
- Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2017 North Carolina data.
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
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 26.9% of Total Area adults are limited in some way in some activities due to a physical, mental, or emotional problem.

- Less favorable than the prevalence statewide.
- Statistically similar to the national prevalence.
- Highest in Hoke 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
(Total Area, 2018)

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 109]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
- 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

• Adults age 40+, lower-income residents, and White residents are more likely to report activity limitations.
In looking at responses by key demographic characteristics, these adults are statistically more likely to report some type of activity limitation:

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

**Limited in Activities in Some Way Due to a Physical, Mental or Emotional Problem (Total Area, 2018)**

Among persons reporting activity limitations, these are most often attributed to musculo-skeletal issues, such as back/neck problems, arthritis/rheumatism, fractures or bone/joint injuries, or difficulty walking.

Other limitations noted with some frequency include those related to heart conditions, lung or breathing problems, and mental health (depression, anxiety).
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 21.2% of Total Area adults from going about their usual activities for at least one day in the past month, including 16.1% who have been limited three or more days.

Number of Days Kept From Doing Usual Activities Due to Poor Physical or Mental Health in Past Month
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>78.8%</td>
</tr>
<tr>
<td>1 to 2 Days</td>
<td>5.1%</td>
</tr>
<tr>
<td>3 to 6 Days</td>
<td>4.7%</td>
</tr>
<tr>
<td>7 to 15 Days</td>
<td>4.6%</td>
</tr>
<tr>
<td>&gt;15 Days</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 362]
Notes: Asked of all respondents.
- Hoke County residents are most likely to report 3+ days of activity limitations due to poor physical or mental health in the past month.
- TREND: The decrease since 2015 findings is not statistically significant.

**Experienced Three or More Days of Activity Limitations Due to Poor Physical/Mental Health in Past Month**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>25.1</td>
<td>13.2</td>
</tr>
<tr>
<td>Lee County</td>
<td>16.9</td>
<td>16.1</td>
</tr>
<tr>
<td>Montgomery</td>
<td>18.4</td>
<td>18.7</td>
</tr>
<tr>
<td>County</td>
<td>12.7</td>
<td>16.9</td>
</tr>
<tr>
<td>Moore County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>25.1</td>
<td>16.9</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 362]

**Notes:**
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.
- Note the strong negative correlation between this type of activity limitation and income.
- Adults age 40-64 are also more likely to report 3+ limited days.

**Experienced Three or More Days of Activity Limitations Due to Poor Physical/Mental Health in Past Month**

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.0%</td>
<td>10.8%</td>
<td>17.7%</td>
<td>21.6%</td>
<td>14.2%</td>
<td>32.2%</td>
<td>18.8%</td>
<td>11.0%</td>
<td>15.8%</td>
<td>17.0%</td>
<td>12.4%</td>
<td>14.8%</td>
<td>16.1%</td>
<td>65%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 362]

**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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
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, and it is important that interventions be relevant to the target audiences.
- In addition to advancements in the prevention of mental disorders, there continues to be steady progress in treating mental disorders as new drugs and stronger evidence-based outcomes become available.

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

**Evaluation of Mental Health Status**

A total of 64.0% of Total Area adults rate their overall mental health as “excellent” or “very good.”

- Another 23.7% gave “good” ratings of their own mental health status.

**Self-Reported Mental Health Status**
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>30.8%</td>
</tr>
<tr>
<td>Very Good</td>
<td>33.2%</td>
</tr>
<tr>
<td>Good</td>
<td>23.7%</td>
</tr>
<tr>
<td>Fair</td>
<td>8.8%</td>
</tr>
<tr>
<td>Poor</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

A total of 12.2% of Total Area adults, however, believe that their overall mental health is “fair” or “poor.”

- Similar to the “fair/poor” response reported nationally.
- Highest in Hoke, Montgomery, and Richmond counties.
- TREND: Virtually unchanged since first measured in 2015.

**Experience “Fair” or “Poor” Mental Health**

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>17.0%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Lee County</td>
<td>10.3%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>17.7%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Moore County</td>
<td>6.7%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>12.2%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Total Area</td>
<td>13.0%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

**Comparative Area**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>12.8%</td>
</tr>
<tr>
<td>2018</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 99]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.
• Adults with very low incomes and those age 40-64 are much more likely to report experiencing “fair/poor” mental health than their demographic counterparts.

**Experience “Fair” or “Poor” Mental Health**
*(Total Area, 2018)*

**Days of Poor Mental Health**
Though a majority of Total Area residents reported no days of poor mental health in the past month, 35.4% report at least one day, including 4.5% with more than 15 days (half of the month or more).
• Reports from those with 3+ days of poor mental health in the past month are highest in Hoke and Richmond counties.
• TREND: No significant change over time.

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

Women and adults under age 65 are more likely to report 3+ days of poor mental health.

Experienced Three or More Days of Poor Mental Health in the Past Month
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 360]
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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Chronic Depression

One-third (33.2%) of Total Area adults have had two or more years in their lives when they felt depressed or sad on most days, although they may have felt okay sometimes (symptoms of chronic depression).

- Comparable to national findings.
- Highest in Hoke and Richmond counties.
- TREND: Marks a significant increase in chronic depression symptoms since 1999.

Have Experienced Symptoms of Chronic Depression

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

- Women.
- Adults under age 65.
- Adults with lower incomes (strong negative correlation with income).
- Black residents.
**Have Experienced Symptoms of Chronic Depression**
(Total Area, 2018)

<table>
<thead>
<tr>
<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.4%</td>
<td>35.7%</td>
<td>39.9%</td>
<td>34.1%</td>
<td>20.1%</td>
<td>55.5%</td>
<td>40.2%</td>
<td>23.1%</td>
<td>29.3%</td>
<td>42.6%</td>
<td>33.0%</td>
<td>37.3%</td>
<td>33.2%</td>
</tr>
</tbody>
</table>

**Sources:** 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 100]
**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.
- 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 with incomes below 100% of the federal poverty level; "Low Income" includes households with incomes at 100-199% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.

**Stress**
The majority of Total Area adults (57.5%) report one or more days of feeling worried, tense, or anxious during the past month, including 13.1% reporting more than 15 days.

**Days of Feeling Worried, Tense, or Anxious in the Past Month**
(Total Area, 2018)

- None 42.5%
- 1 to 2 Days 17.0%
- 3 to 6 Days 15.9%
- 7 to 15 Days 11.4%
- >15 Days 13.1%

**Sources:** 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 361]
**Notes:** Asked of all respondents.
Four in 10 Total Area adults (40.5%) report three or more days of stress in the past month.

- Highest in Hoke and Richmond counties.
- TREND: No significant change over time.

Felt Worried, Tense, or Anxious for Three or More Days in the Past Month

Note that 3+ stressful days are more often reported among women, adults under age 65, and those with lower incomes.

Felt Worried, Tense, or Anxious for Three or More Days in the Past Month (Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 361]
Notes: Asked of all respondents.
Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

RELATED ISSUE:
See also Substance Abuse in the Modifiable Health Risks section of this report.
Suicide

Between 2015 and 2017, there was an annual average age-adjusted suicide rate of 15.5 deaths per 100,000 population in the Total Area.

- Similar to the statewide and national rates.
- Fails to satisfy the Healthy People 2020 target of 10.2 or lower.
- Highest in Moore County.

Suicide: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 10.2 or Lower

<table>
<thead>
<tr>
<th>County</th>
<th>Rate (2015-2017)</th>
<th>Healthy People Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>13.1</td>
<td>10.2</td>
</tr>
<tr>
<td>Lee County</td>
<td>15.1</td>
<td>10.2</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>17.9</td>
<td>10.2</td>
</tr>
<tr>
<td>Moore County</td>
<td>14.2</td>
<td>10.2</td>
</tr>
<tr>
<td>Richmond County</td>
<td>15.5</td>
<td>10.2</td>
</tr>
<tr>
<td>Total Area</td>
<td>13.6</td>
<td>10.2</td>
</tr>
<tr>
<td>NC</td>
<td>13.6</td>
<td>10.2</td>
</tr>
<tr>
<td>US</td>
<td>13.6</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Sources:

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.
- Note that the rate for Montgomery County is suppressed due to low counts.

NOTE:
Trends for secondary data indicators include all five counties included in the Total Area.
Suicide: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)

Healthy People 2020 Target = 10.2 or Lower

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>11.7</td>
<td>12.2</td>
<td>12.6</td>
</tr>
<tr>
<td>2009-2011</td>
<td>14.4</td>
<td>12.2</td>
<td>12.9</td>
</tr>
<tr>
<td>2010-2012</td>
<td>14.1</td>
<td>12.3</td>
<td>12.4</td>
</tr>
<tr>
<td>2011-2013</td>
<td>13.7</td>
<td>12.5</td>
<td>12.6</td>
</tr>
<tr>
<td>2012-2014</td>
<td>11.4</td>
<td>12.8</td>
<td>12.6</td>
</tr>
<tr>
<td>2013-2015</td>
<td>11.5</td>
<td>13.0</td>
<td>13.0</td>
</tr>
<tr>
<td>2014-2016</td>
<td>13.1</td>
<td>13.2</td>
<td>13.0</td>
</tr>
<tr>
<td>2015-2017</td>
<td>15.5</td>
<td>13.6</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Sources:

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 27.5% of Total Area adults acknowledge having ever sought professional help for a mental or emotional problem.

- Compared to national findings, there is no significant difference.
- Most common in Hoke County and least common in Lee County.
- TREND: Marks a steady increase in seeking care since 1999 findings.

Note that 51.6% of adults with symptoms of chronic depression have ever sought this type of help.

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>38.7%</td>
<td>20.8%</td>
<td>30.5%</td>
<td>25.3%</td>
<td>30.8%</td>
<td>27.5%</td>
<td>30.8%</td>
</tr>
<tr>
<td>2003</td>
<td>13.1%</td>
<td>17.0%</td>
<td>19.1%</td>
<td>21.2%</td>
<td>25.7%</td>
<td>25.7%</td>
<td>25.7%</td>
</tr>
<tr>
<td>2007</td>
<td>17.0%</td>
<td>19.1%</td>
<td>21.2%</td>
<td>25.7%</td>
<td>25.7%</td>
<td>25.7%</td>
<td>25.7%</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 100, 104]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending. Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
Seeking care for mental or emotional problems is more commonly reported among women, adults under age 65 (especially those age 40-64), very low-income adults, White residents, and “Other” race residents.

**Have Ever Sought Professional Help for a Mental or Emotional Problem**  
*(Total Area, 2018)*

- **2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 104]**
- **Asking 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.**

**Difficulty Accessing Mental Health Services**

A total of 2.8% of Total Area adults report a time in the past year when they needed mental health services, but were not able to get them.

- Lower than the national finding.
- Reported difficulties are lowest in Moore County.

A total of 7.9% of those with symptoms of chronic depression report having difficulty accessing mental health care in the past year.
Unable to Get Mental Health Services
When Needed in the Past Year

(Hoke County, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. (Items 100, 105)
Notes: Asked of all respondents.

Note that access difficulty is notably more prevalent among very low-income residents and (to a lesser degree) among adults age 40-64.

Among persons citing difficulties accessing mental health services in the past year, these are predominantly attributed to cost or insurance issues or lack of transportation (not shown).
Death, Disease & Chronic Conditions
Leading Causes of Death

Distribution of Deaths by Cause
Together, cardiovascular disease (heart disease and stroke) and cancers accounted for more than four in 10 deaths in the Total Area in 2017.

Leading Causes of Death
(Total Area, 2017)

Heart Disease 20.5%
Cancer 20.4%
Alzheimer's Disease 6.6%
Unintentional Injuries 6.2%
Stroke 5.3%
CLRD 6.6%
Other 34.4%

Sources: CDC WONDER Online Query System. Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted January 2019.

Notes: Deaths are coded using the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).
CLRD is chronic lower respiratory disease.

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 2015-2017 annual average age-adjusted death rates per 100,000 population for selected causes of death in the Total Area.

Each of these is discussed in greater detail in subsequent sections of this report.
### Age-Adjusted Death Rates for Selected Causes
(2015-2017 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>Diseases of the Heart</td>
<td>170.7</td>
<td>159.2</td>
<td>166.3</td>
<td>156.9*</td>
</tr>
<tr>
<td>Malignant Neoplasms (Cancers)</td>
<td>164.4</td>
<td>161.1</td>
<td>155.6</td>
<td>161.4</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>55.4</td>
<td>52.1</td>
<td>46.7</td>
<td>36.4</td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>47.6</td>
<td>36.4</td>
<td>30.2</td>
<td>n/a</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Disease (CLRD)</td>
<td>45.2</td>
<td>45.2</td>
<td>41.0</td>
<td>n/a</td>
</tr>
<tr>
<td>Cerebrovascular Disease (Stroke)</td>
<td>41.8</td>
<td>43.6</td>
<td>37.5</td>
<td>34.8</td>
</tr>
<tr>
<td>Diabetes</td>
<td>25.3</td>
<td>23.6</td>
<td>21.3</td>
<td>20.5*</td>
</tr>
<tr>
<td>Motor Vehicle Deaths</td>
<td>23.1</td>
<td>14.2</td>
<td>11.4</td>
<td>12.4</td>
</tr>
<tr>
<td>Firearm-Related</td>
<td>16.8</td>
<td>13.3</td>
<td>11.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Pneumonia/Influenza</td>
<td>15.6</td>
<td>17.6</td>
<td>14.3</td>
<td>n/a</td>
</tr>
<tr>
<td>Intentional Self-Harm (Suicide)</td>
<td>15.5</td>
<td>13.6</td>
<td>13.6</td>
<td>10.2</td>
</tr>
<tr>
<td>Unintentional Drug-Related Deaths</td>
<td>15.3</td>
<td>17.6</td>
<td>16.7</td>
<td>11.3</td>
</tr>
<tr>
<td>Kidney Disease</td>
<td>15.1</td>
<td>16.7</td>
<td>13.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Cirrhosis/Liver Disease</td>
<td>15.1</td>
<td>16.7</td>
<td>13.2</td>
<td>9.3</td>
</tr>
<tr>
<td>Homicide/Legal Intervention</td>
<td>13.6</td>
<td>10.4</td>
<td>10.8</td>
<td>8.2</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>7.9</td>
<td>6.8</td>
<td>8.0</td>
<td>5.5</td>
</tr>
</tbody>
</table>


Note: Rates are per 100,000 population, age-adjusted to the 2000 US Standard Population and coded using ICD-10 codes.

For infant mortality data, see Birth Outcomes & Risks in the Births section of this report.
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, including access to safe and walkable communities; access to healthy foods; quality of working conditions and worksite health; availability of community support and resources; and access to affordable, quality healthcare.

- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Heart Disease & Stroke Deaths

Heart Disease Deaths

Between 2015 and 2017, there was an annual average age-adjusted heart disease mortality rate of 170.7 deaths per 100,000 population in the Total Area.

- Similar to the statewide and national rates.
- Statistically similar to the Healthy People 2020 target of 156.9 or lower (as adjusted to account for all diseases of the heart).
- Notably high in Richmond County.
Heart Disease: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 156.9 or Lower (Adjusted)

Sources:
- 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.

Notes:
- By race, the heart disease mortality rate is higher among Non-Hispanic Blacks when compared with Non-Hispanic Whites in the Total Area.

Heart Disease: Age-Adjusted Mortality by Race
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 156.9 or Lower (Adjusted)

Sources:
- 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: Despite a slight decrease over the first half of the past decade, the Total Area heart disease mortality rate has increased slightly in recent years.

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

Sources:

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 2015 and 2017, there was an annual average age-adjusted stroke mortality rate of 41.8 deaths per 100,000 population in the Total Area.

• Similar to the North Carolina and national rates.
• Fails to satisfy the Healthy People 2020 target of 34.8 or lower.
• Least favorable in Richmond County.
**Stroke: Age-Adjusted Mortality**  
*(2015-2017 Annual Average Deaths per 100,000 Population)*

**Healthy People 2020 Target = 34.8 or Lower**

![Diagram showing age-adjusted mortality rates for different areas.]

**Sources:**
- CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted January 2019.

**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.

- **Total Area stroke mortality is higher among Blacks when compared with Whites.**

**Stroke: Age-Adjusted Mortality by Race**  
*(2015-2017 Annual Average Deaths per 100,000 Population)*

**Healthy People 2020 Target = 34.8 or Lower**

![Diagram showing age-adjusted mortality rates by race.]

**Sources:**
- CDC WONDER Online Query System, Centers for Disease Control and Prevention, Epidemiology Program Office, Division of Public Health Surveillance and Informatics. Data extracted January 2019.

**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:** After declining in the late 2000s, the stroke mortality rate has since leveled off (similar to state and national trends).
Stroke: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 34.8 or Lower

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>47.0</td>
<td>47.6</td>
<td>44.3</td>
</tr>
<tr>
<td>2009-2011</td>
<td>43.0</td>
<td>45.0</td>
<td>42.5</td>
</tr>
<tr>
<td>2010-2012</td>
<td>41.1</td>
<td>43.6</td>
<td>37.6</td>
</tr>
<tr>
<td>2011-2013</td>
<td>40.9</td>
<td>42.8</td>
<td>36.7</td>
</tr>
<tr>
<td>2012-2014</td>
<td>42.3</td>
<td>42.7</td>
<td>36.5</td>
</tr>
<tr>
<td>2013-2015</td>
<td>42.9</td>
<td>43.4</td>
<td>36.8</td>
</tr>
<tr>
<td>2014-2016</td>
<td>41.6</td>
<td>43.6</td>
<td>37.1</td>
</tr>
<tr>
<td>2015-2017</td>
<td>41.8</td>
<td>43.6</td>
<td>37.5</td>
</tr>
</tbody>
</table>

Sources: 

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.

Prevalence of Heart Disease & Stroke

Prevalence of Heart Disease
A total of 8.3% of surveyed adults report that they suffer from or have been diagnosed with heart disease, such as coronary heart disease, angina, or heart attack.

- Comparable to the national prevalence.
- Comparable by county.
- TREND: Statistically unchanged since first measured in 2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>7.6%</td>
<td>7.8%</td>
<td>8.1%</td>
</tr>
<tr>
<td>2018</td>
<td>7.8%</td>
<td>8.2%</td>
<td>8.1%</td>
</tr>
<tr>
<td></td>
<td>8.1%</td>
<td>10.2%</td>
<td>8.3%</td>
</tr>
<tr>
<td></td>
<td>8.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparative Area

Sources: 
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 128]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: 
- Asked of all respondents.
- Includes diagnoses of heart attack, angina, or coronary heart disease.
- Trending: Lee County is excluded from the Comparative Area data.
Adults more likely to have been diagnosed with chronic heart disease include:

- Men.
- Older adults (strong correlation with age).
- White residents.
- Black residents.

### Prevalence of Heart Disease
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Income</td>
<td>10.8%</td>
<td>6.1%</td>
<td>0.0%</td>
<td>9.2%</td>
<td>19.2%</td>
<td>8.9%</td>
<td>10.1%</td>
<td>6.7%</td>
<td>9.1%</td>
<td>8.6%</td>
<td>2.0%</td>
<td>4.8%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

### Prevalence of Stroke

A total of 4.1% of surveyed adults report that they suffer from or have been diagnosed with cerebrovascular disease (a stroke).

- Similar to statewide and national findings.
- Similar by county.
- TREND: No significant change in stroke prevalence since first measured in 2015.
Prevalence of Stroke

Source:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.

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)

High Blood Pressure

High Blood Pressure Testing

A total of 97.4% of Total Area adults have had their blood pressure tested within the past two years.

- Higher than national findings.
- Satisfies the Healthy People 2020 target (92.6% or higher).
- Highest in Hoke County.
- TREND: Blood pressure testing has increased since first measured in 2003.
**Prevalence of High Blood Pressure**

A total of 47.0% of Total Area adults have been told at some point that their blood pressure was high.

- Less favorable than the North Carolina or US prevalence.
- Far from satisfying the Healthy People 2020 target (26.9% or lower).
- Highest in Hoke and Richmond counties.
- TREND: Marks a steady increase in high blood pressure since 1999.
High blood pressure is more prevalent among:

- Older adults (strong correlation with age).
- Very low-income residents (negative correlation with income).
- Non-Hispanic residents.

**Prevalence of High Blood Pressure**
*(Total Area, 2018)*

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

*Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 129)*


*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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.*

*Among adults with high blood pressure, 91.4% are taking action to lower their blood pressure (such as medication, change in diet, and/or exercise).*

These adults were further asked to indicate the measures they are taking in order to control their high blood pressure.

- In all, 81.1% of individuals with high blood pressure report using **medication** (alone, or in combination with changes in diet and/or exercise), 49.6% report using **exercise** (alone or in combination), and 49.9% report using **diet** (alone or in combination).
Measures Taken to Control High Blood Pressure
(Total Area Adults With High Blood Pressure Taking Action to Control HBP, 2018)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meds Only</td>
<td>34.4%</td>
</tr>
<tr>
<td>Meds/Diet</td>
<td>10.0%</td>
</tr>
<tr>
<td>Meds/Exercise</td>
<td>10.9%</td>
</tr>
<tr>
<td>Diet/Exercise/Meds</td>
<td>25.6%</td>
</tr>
<tr>
<td>Other (Each &lt;3%)</td>
<td>1.0%</td>
</tr>
<tr>
<td>Diet Only</td>
<td>5.0%</td>
</tr>
<tr>
<td>Exercise Only</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 314]
Notes: Asked of all respondents diagnosed with high blood pressure who are taking action to control their high blood pressure.

High Blood Cholesterol
Blood Cholesterol Testing
A total of 93.5% of Total Area adults have had their blood cholesterol checked within the past five years.

- More favorable than North Carolina and US findings.
- Satisfies the Healthy People 2020 target (82.1% or higher).
- Lowest in Moore County.
- TREND: Denotes a statistically significant increase since first measured in 2003.

Have Had Blood Cholesterol Levels Checked in the Past Five Years
Healthy People 2020 Target = 82.1% or Higher

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>2003</td>
<td>97.1%</td>
<td>93.6%</td>
<td>94.3%</td>
<td>91.5%</td>
<td>93.4%</td>
<td>93.5%</td>
<td>86.7%</td>
<td>85.1%</td>
</tr>
<tr>
<td>2007</td>
<td>91.2%</td>
<td>91.6%</td>
<td>91.5%</td>
<td>91.6%</td>
<td>93.4%</td>
<td>93.5%</td>
<td>88.6%</td>
<td>88.6%</td>
</tr>
<tr>
<td>2011</td>
<td>88.4%</td>
<td>91.2%</td>
<td>91.6%</td>
<td>91.6%</td>
<td>93.4%</td>
<td>93.5%</td>
<td>88.4%</td>
<td>88.4%</td>
</tr>
<tr>
<td>2015</td>
<td>88.4%</td>
<td>91.2%</td>
<td>91.6%</td>
<td>91.6%</td>
<td>93.4%</td>
<td>93.5%</td>
<td>88.4%</td>
<td>88.4%</td>
</tr>
<tr>
<td>2018</td>
<td>88.4%</td>
<td>91.2%</td>
<td>91.6%</td>
<td>91.6%</td>
<td>93.4%</td>
<td>93.5%</td>
<td>88.4%</td>
<td>88.4%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 45]
Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia. United States Department of Health and Human Services, Centers for Disease Control and Prevention (CDC); 2017 North Carolina data.
2017 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: Asked of all respondents.
Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
Prevalence of High Blood Cholesterol

A total of 36.5% of adults have been told by a health professional that their cholesterol level was high.

- Almost identical to the national prevalence.
- More than twice the Healthy People 2020 target (13.5% or lower).
- Comparable by county.
- TREND: The prevalence of high blood cholesterol has increased over time.

Further note the following:

- There is a strong correlation between age and high blood cholesterol.
- There is a higher prevalence among adults under 100% poverty or higher than 200% poverty.
- Non-Hispanic residents report a notably higher prevalence than Hispanics.
Among adults with high blood cholesterol readings, 36.5% are taking action to lower their numbers (such as medication, change in diet, and/or exercise).

These adults were further asked to indicate the measures they are taking in order to control their high blood pressure.

- In all, 69.1% of individuals with high blood pressure report using medication (alone, or in combination with changes in diet and/or exercise), 44.5% report using exercise (alone or in combination), and 57.6% report using diet (alone or in combination).
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

Nine in 10 Total Area adults (90.0%) 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.
- Highest in Richmond County.
- TREND: Virtually identical to 1999 findings.
Present One or More Cardiovascular Risks or Behaviors

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 131]
Notes: Asked of all respondents.
Cardiovascular risk is defined as exhibiting one or more of the following: 1) no leisure-time physical activity; 2) regular/occasional cigarette smoking; 3) hypertension; 4) high blood cholesterol; and/or 5) being overweight/obese.
Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

Adults more likely to exhibit cardiovascular risk factors include:

- Adults age 65+
- Those with lower incomes.
- Black residents.
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)
- Healthy People 2020 (www.healthypeople.gov)

Age-Adjusted Cancer Deaths

All Cancer Deaths

Between 2015 and 2017, there was an annual average age-adjusted cancer mortality rate of 164.4 deaths per 100,000 population in the Total Area.

- Comparable to the statewide and national rates.
- Similar to the Healthy People 2020 target of 161.4 or lower.
- Lowest in Moore County.
The cancer mortality rate in the Total Area is notably higher among Blacks.

TREND: Cancer mortality has decreased slowly 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

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

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

- As evident in the following chart (referencing 2015-2017 annual average age-adjusted death rates), each death rate is similar to the respective state and national rates and also similar to the related Healthy People 2020 targets.

Age-Adjusted Cancer Death Rates by Site
(2015-2017 Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
<th>HP2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL CANCERS</td>
<td>164.4</td>
<td>161.1</td>
<td>155.6</td>
<td>161.4</td>
</tr>
<tr>
<td>Lung Cancer</td>
<td>44.5</td>
<td>44.2</td>
<td>38.5</td>
<td>45.5</td>
</tr>
<tr>
<td>Female Breast Cancer</td>
<td>21.2</td>
<td>21.1</td>
<td>20.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>19.1</td>
<td>19.5</td>
<td>18.9</td>
<td>21.8</td>
</tr>
<tr>
<td>Colorectal Cancer</td>
<td>12.7</td>
<td>13.6</td>
<td>13.9</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 January 2019.  

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 Incidence

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

- The 2010-2014 Total Area annual average age-adjusted lung cancer incidence rate is worse than the related US rate (other incidence rates are similar).
- Each Total Area cancer incidence rate is similar to state rates for the same years.

Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2010-2014)


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.

- The 2010-2014 Total Area annual average age-adjusted prostate and lung cancer incidence rates are particularly high in Hoke County.

Cancer Incidence Rates by Site
(Annual Average Age-Adjusted Incidence per 100,000 Population, 2010-2014)


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 notably higher prostate and colorectal
cancer incidence rates than Whites in the Total Area (female breast and lung cancer incidence rates are similar by race).

Cancer Incidence Rates by Site and Race/Ethnicity
(Annual Average Age-Adjusted Incidence per 100,000 Population, Total Area 2010-2014)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Prostate Cancer</th>
<th>Female Breast Cancer</th>
<th>Lung Cancer</th>
<th>Colon/Rectal Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (Non-Hispanic)</td>
<td>111.6</td>
<td>134.7</td>
<td>75.2</td>
<td>49.1</td>
</tr>
<tr>
<td>Black (Non-Hispanic)</td>
<td>197.7</td>
<td>127.3</td>
<td>86.8</td>
<td>49.1</td>
</tr>
<tr>
<td>All Races/Ethnicities</td>
<td>128.8</td>
<td>124.5</td>
<td>77.4</td>
<td>39.2</td>
</tr>
</tbody>
</table>

Sources:
- State Cancer Profiles

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.

Prevalence of Cancer

Skin Cancer
A total of 9.1% of surveyed Total Area adults report having been diagnosed with skin cancer.

- Above what is found statewide.
- Similar to national findings.
- Statistically high in Moore County and low in Hoke County.
- TREND: No change since first measured in 2015.
**Prevalence of Skin Cancer**

- **Comparative Area**
- **2015**
- **2018**

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>Lee County</td>
<td>8.1%</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>12.6%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Moore County</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>9.1%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Total Area</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>9.4%</td>
<td>9.4%</td>
</tr>
<tr>
<td>US</td>
<td>12.6%</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 28]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.

**Other Cancer**

A total of 7.8% of survey respondents have been diagnosed with some type of (non-skin) cancer.

- Similar to the statewide and national percentages.
- Similar by county.
- **TREND:** The prevalence of cancer has remained statistically unchanged over time.

**Prevalence of Cancer (Other Than Skin Cancer)**

- **Comparative Area**
- **2015**
- **2018**

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>7.1%</td>
<td></td>
</tr>
<tr>
<td>Lee County</td>
<td>7.1%</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>7.2%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Moore County</td>
<td>9.1%</td>
<td>7.8%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>6.8%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>8.4%</td>
<td>8.1%</td>
</tr>
<tr>
<td>NC</td>
<td>6.8%</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>7.1%</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 27]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.
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 and clinical breast exam); cervical cancer (Pap smear testing); and colorectal cancer (sigmoidoscopy and fecal occult blood testing).
Prostate Cancer Screening

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 Digital Rectal Examination

Among Total Area men age 40 and older, 65.9% had a prostate-specific antigen test (PSA) in the past two years, and 18.4% were tested more than two years ago.

• In contrast, 15.7% of Total Area men in this age group have never been tested, for reported reasons such as not being a specific doctor recommendation, not being needed, and cost.
Just under three-quarters (73.1%) of Total Area men age 40 and older have had a digital rectal examination for prostate problems in the past five years, while 14.2% had this screening more than two years ago.

- However, 12.8% report having never had this screening, mostly due to lack of a doctor recommendation or lack of perceived need.
Prostate Screening

Combined, more than six in 10 Total Area men age 50 and older (64.5%) have had a PSA test and/or digital rectal examination for prostate problems within the past two years.

- Much higher than the national rate.
- Lowest in Richmond County.
- TREND: Prostate screening has significantly declined over time.

Prostate Screening in the Past Two Years
(Among Total Area Men Age 50+)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
<tr>
<td>2003</td>
<td>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
<tr>
<td>2007</td>
<td>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
<tr>
<td>2011</td>
<td>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
<tr>
<td>2015</td>
<td>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
<tr>
<td>2018</td>
<td>61.8%</td>
<td>69.9%</td>
<td>63.3%</td>
<td>67.5%</td>
<td>54.8%</td>
<td>64.5%</td>
<td>56.8%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 367]
Notes: Represents all male respondents age 50+ who have had either a PSA test or digital rectal exam in the past 2 years.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
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 women age 50-74, 86.8% have had a mammogram within the past 2 years.

• Above statewide and national findings.
• Satisfies the Healthy People 2020 target (81.1% or higher).
• Statistically similar by county.
• TREND: Statistically unchanged since 1999.
Clinical Breast Examination

Most Total Area women age 40 and older (81.1%) have had a clinical breast examination in the past two years, while 16.9% had this examination more than two years ago.

- A total of 1.9% of women in this age group report having never had this examination.

### Most Recent Clinical Breast Exam
(Total Area Women Age 40+, 2018)

- Past Year 67.6%
- Past 2 Years (>1 Year) 13.5%
- Past 3 Years (>2 Years) 3.6%
- Past 5 Years (>3 Years) 4.3%
- 5+ Years 9.0%
- Never 1.9%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc.
Notes: Reflects women age 40+.
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 Total Area women age 21 to 65, 80.6% have had a Pap smear within the past 3 years.

- Statistically comparable to North Carolina findings.
- More favorable than national findings.
- Fails to satisfy the Healthy People 2020 target (93.0% or higher).
- Statistically comparable by county.
- TREND: Marks a decline in testing over time.
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>Lee 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>76.2%</td>
<td>83.3%</td>
<td>82.6%</td>
<td>78.6%</td>
<td>82.9%</td>
<td>80.6%</td>
<td>84.0%</td>
<td>73.5%</td>
</tr>
<tr>
<td>2003</td>
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<td>2007</td>
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<tr>
<td>2011</td>
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<tr>
<td>2011</td>
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<tr>
<td>2015</td>
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<tr>
<td>2015</td>
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<td></td>
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<tr>
<td>2018</td>
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<tr>
<td>2018</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 134)
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reflects female respondents age 21 to 65.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

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 (fecal occult blood testing, 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.
**Sigmoidoscopy/Colonoscopy**

A total of 84.0% of Total Area adults age 50 and older have ever having had a sigmoidoscopy or colonoscopy, while 16.0% of adults in this age group report never having had this test.

- Among those who report never having a sigmoidoscopy or colonoscopy, the top reasons given include a lack of perceived need, a lack of will, and a lack of doctor recommendation.

### Most Recent Sigmoidoscopy/Colonoscopy

(Total Area Respondents Age 50+, 2018)

Top reasons:
- Not Needed: 31.6%
- Don’t Want To: 18.4%
- Not Dr. Recommended: 17.7%

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past Year</td>
<td>20.5%</td>
</tr>
<tr>
<td>Past 2 Years (&gt;1 Year)</td>
<td>15.1%</td>
</tr>
<tr>
<td>Past 3 Years (&gt;2 Years)</td>
<td>12.4%</td>
</tr>
<tr>
<td>Past 5 Years (&gt;3 Years)</td>
<td>18.0%</td>
</tr>
<tr>
<td>10+ Years (≥5 Years)</td>
<td>4.1%</td>
</tr>
<tr>
<td>Never</td>
<td>16.0%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 82, 341]

Notes: Asked of respondents age 50+

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**Blood Stool Tests**

Among adults age 50 and older, 28.5% have had a blood stool test (fecal occult blood test) within the past two years, and 22.8% had a blood stool test over two years ago.

- However, 48.7% of Total Area respondents in this age group report never having had a blood stool test, for reasons specifically owing to lack of doctor recommendation or perceived lack of need.
**Most Recent Blood Stool Test**  
(Total Area Respondents Age 50+, 2018)

Top reasons:
- Not Dr. Recommended: 53.5%
- Not Needed: 27.7%
- Don’t Know/No Response: 8.5%

- Past Year 20.1%
- Past 2 Years (>1 Year) 8.4%
- Past 3 Years (>2 Years) 3.1%
- Past 5 Years (>3 Years) 5.5%
- 5+ Years 14.2%
- Never 48.7%

Sources:  
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.  [Items 83, 342]

Notes:  
- Asked of respondents age 50+.

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**Colorectal Cancer Screening**

Among adults age 50-75, 82.5% have had an appropriate colorectal cancer screening.

- More favorable than state and national findings.
- Satisfies the Healthy People 2020 target (70.5% or higher).
- Lowest in Montgomery and Richmond counties.
- TREND: An increase over 2015 findings (similar to 2011).

**Have Had a Colorectal Cancer Screening**  
(Among Adults Age 50-75)  
Healthy People 2020 Target = 70.5% or Higher

Sources:  
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 137]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:  
- Asked of all respondents age 50 through 75.
- “Appropriate colorectal screening” includes a fecal occult blood test within the past year and/or a lower endoscopy (sigmoidoscopy or colonoscopy) within the past 10 years.
- Trending: Lee County is excluded from the Comparative Area data.

---

**Colorectal Cancer Screening**

- More favorable than state and national findings.
- Satisfies the Healthy People 2020 target (70.5% or higher).
- Lowest in Montgomery and Richmond counties.
- TREND: An increase over 2015 findings (similar to 2011).
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 2015 and 2017, there was an annual average age-adjusted CLRD mortality rate of 45.2 deaths per 100,000 population in the Total Area.

- Comparable to North Carolina and US findings.
- Notably higher in Montgomery and (especially) Richmond counties.

CLRD: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)

CLRD: Age-Adjusted Mortality by Race
(2015-2017 Annual Average Deaths per 100,000 Population)

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.
• TREND: CLRD mortality in the Total Area has not shown a clear trend over the past decade.

CLRD: 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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>43.4</td>
<td>42.6</td>
<td>42.8</td>
<td>45.7</td>
<td>46.2</td>
<td>46.0</td>
<td>42.3</td>
<td>45.2</td>
</tr>
<tr>
<td>NC</td>
<td>46.9</td>
<td>46.0</td>
<td>46.4</td>
<td>46.4</td>
<td>45.9</td>
<td>45.6</td>
<td>45.1</td>
<td>45.2</td>
</tr>
<tr>
<td>US</td>
<td>47.4</td>
<td>46.4</td>
<td>41.7</td>
<td>41.7</td>
<td>41.4</td>
<td>41.4</td>
<td>40.9</td>
<td>41.0</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 January 2019.

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 2015 and 2017, the Total Area reported an annual average age-adjusted pneumonia influenza mortality rate of 15.6 deaths per 100,000 population.

• Similar to the rates found statewide and nationally.
• Highest in Hoke and Montgomery counties.

Pneumonia/Influenza: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th></th>
<th>2015-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>20.7</td>
</tr>
<tr>
<td>Lee County</td>
<td>13.6</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>23.7</td>
</tr>
<tr>
<td>Moore County</td>
<td>12.0</td>
</tr>
<tr>
<td>Richmond County</td>
<td>18.7</td>
</tr>
<tr>
<td>Total Area</td>
<td>15.6</td>
</tr>
<tr>
<td>NC</td>
<td>17.6</td>
</tr>
<tr>
<td>US</td>
<td>14.3</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 January 2019.

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 pneumonia/influenza mortality rate in the Total Area is higher among Blacks.

Pneumonia/Influenza: Age-Adjusted Mortality by Race
(2015-2017 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 January 2019.

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: Pneumonia/influenza mortality in the Total Area has overall increased over the past decade. Nationally, pneumonia/influenza death rates have decreased.

Pneumonia/Influenza: 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 January 2019.

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.
Prevalence of Respiratory Disease

Asthma

A total of 17.4% of Total Area adults have ever been diagnosed with asthma.

- Higher than the statewide prevalence.
- Similar to the national prevalence.
- Lowest in Lee County.
- TREND: The prevalence of adults with asthma has increased over time.

Ever Diagnosed With Asthma

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

Lower-income adults are more likely to suffer from asthma, as are Black residents and adults under age 65.
Ever Diagnosed With Asthma
(Total Area, 2018)

Chronic Obstructive Pulmonary Disease (COPD)
A total of 12.5% of Total Area adults suffer from chronic obstructive pulmonary disease (COPD, including emphysema and bronchitis).

- Above the statewide and national prevalence.
- Most prevalent in Richmond County.
- TREND: A significant increase in COPD prevalence since first measured in 2015.
Respiratory Issues and Smoking

In segmenting the prevalence of respiratory disease by respondents’ smoking histories, a relationship with chronic obstructive pulmonary disease (COPD) is evident (i.e., increasing prevalence in those with longer smoking histories).

In fact, 44.4% of surveyed adults who smoked for more than 30 years also report having a COPD diagnosis (versus 6.1% of those who never smoked).

Prevalence of Respiratory Disease by Smoking History
(Total Area, 2018)

Asthma Prevalence by Smoking History  COPD Prevalence by Smoking History

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 24, 34, 316]
Notes: Asked of all respondents.
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

- Healthy People 2020 (www.healthypeople.gov)
### Unintentional Injury

#### Age-Adjusted Unintentional Injury Deaths

Between 2015 and 2017, there was an annual average age-adjusted unintentional injury mortality rate of 55.4 deaths per 100,000 population in the Total Area.

- Statistically similar to the North Carolina rate.
- Higher than the national rate.
- Far from satisfying the Healthy People 2020 target (36.4 or lower).
- Highest in Lee County.

#### Unintentional Injuries: Age-Adjusted Mortality

(2015-2017 Annual Average Deaths per 100,000 Population)

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

<table>
<thead>
<tr>
<th>County</th>
<th>Rate (Deaths per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>41.9</td>
</tr>
<tr>
<td>Lee County</td>
<td>70.1</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>39.9</td>
</tr>
<tr>
<td>Moore County</td>
<td>55.4</td>
</tr>
<tr>
<td>Richmond County</td>
<td>62.4</td>
</tr>
<tr>
<td>Total Area</td>
<td>55.4</td>
</tr>
<tr>
<td>NC</td>
<td>52.1</td>
</tr>
<tr>
<td>US</td>
<td>46.7</td>
</tr>
</tbody>
</table>

**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.

**Sources:**
The mortality rate is similar between White and Black residents in the Total Area.

Unintentional Injuries: Age-Adjusted Mortality by Race
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 36.4 or Lower

Unintentional Injuries: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 36.4 or Lower

TREND: In recent years, there is an upward trend in the unintentional injury mortality rate in the Total Area, echoing the increasing trends reported in the North Carolina and the US overall.

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.

Sources:
Leading Causes of Accidental Death

Motor vehicle accidents, poisoning (including accidental drug overdose), and falls accounted for most accidental deaths in the Total Area between 2015 and 2017.

Selected Injury Deaths

The following chart outlines mortality rates for motor vehicle crashes, unintentional drug-related deaths, and falls (among adults age 65 and older).

- The Total Area annual average age-adjusted motor vehicle accident mortality rate is worse than state and US rates (mortality rates for unintentional drug-related deaths and age 65+ falls are better than or similar to related state and US rates).
Select Injury Death Rates
(By Cause of Death; 2015-2017 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 January 2019.

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.
*Healthy People 2020 goal reflects all drug-induced deaths, both intentional and unintentional.

Age-Adjusted Firearm-Related Deaths
Between 2015 and 2017, firearms in the Total Area contributed to an annual average age-adjusted rate of 16.8 deaths per 100,000 population.

- Higher than found statewide and nationally.
- Fails to satisfy the Healthy People 2020 objective (9.3 or lower).
- Notably high in Richmond County.

Firearms-Related Deaths: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 9.3 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 January 2019.

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.
Note that the rate for Montgomery County is suppressed due to low counts.
- The mortality rate is higher among Blacks than Whites in the Total Area.

**Firearms-Related Deaths: Age-Adjusted Mortality by Race**
(2015-2017 Annual Average Deaths per 100,000 Population)

*Healthy People 2020 Target = 9.3 or Lower*

<table>
<thead>
<tr>
<th></th>
<th>Total Area White (Non-Hispanic)</th>
<th>Total Area Black (Non-Hispanic)</th>
<th>Total Area All Races/Ethnicities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2017</td>
<td>15.7</td>
<td>23.6</td>
<td>16.8</td>
</tr>
</tbody>
</table>

**Intentional Injury (Violence)**

**Age-Adjusted Homicide Deaths**

Between 2015 and 2017, there was an annual average age-adjusted homicide rate of 7.9 deaths per 100,000 population in the Total Area.

- Statistically comparable to the rate found statewide.
- Less favorable than the national rate.
- Fails to satisfy the Healthy People 2020 target of 5.5 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 January 2019.

**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 homicide rate is notably high among Blacks in the Total Area.

TREND: The homicide rate has decreased overall in the Total Area over the past decade, though it remains above state and national rates.
### Homicide: Age-Adjusted Mortality Trends

(Annual Average Deaths per 100,000 Population)

**Healthy People 2020 Target = 5.5 or Lower**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>10.2</td>
<td>6.3</td>
<td>5.6</td>
</tr>
<tr>
<td>2009-2011</td>
<td>8.3</td>
<td>5.8</td>
<td>5.4</td>
</tr>
<tr>
<td>2010-2012</td>
<td>8.1</td>
<td>5.7</td>
<td>5.3</td>
</tr>
<tr>
<td>2011-2013</td>
<td>9.5</td>
<td>5.8</td>
<td>5.3</td>
</tr>
<tr>
<td>2012-2014</td>
<td>9.2</td>
<td>5.8</td>
<td>5.2</td>
</tr>
<tr>
<td>2013-2015</td>
<td>7.4</td>
<td>5.8</td>
<td>5.3</td>
</tr>
<tr>
<td>2014-2016</td>
<td>7.4</td>
<td>6.4</td>
<td>5.7</td>
</tr>
<tr>
<td>2015-2017</td>
<td>7.9</td>
<td>6.8</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Sources:**

**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**

Between 2012 and 2014, there were a reported 212.1 violent crimes per 100,000 population in the Total Area.

- Far below the North Carolina and US rates for the same period.
- Highest (by far) in Richmond County.

**Violent Crime**

(Rate per 100,000 Population, 2012-2014)

<table>
<thead>
<tr>
<th>County</th>
<th>2012-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>108.5</td>
</tr>
<tr>
<td>Lee County</td>
<td>165.4</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>202.9</td>
</tr>
<tr>
<td>Moore County</td>
<td>182.5</td>
</tr>
<tr>
<td>Richmond County</td>
<td>446.3</td>
</tr>
<tr>
<td>Total Area</td>
<td>212.1</td>
</tr>
<tr>
<td>NC</td>
<td>334.5</td>
</tr>
<tr>
<td>US</td>
<td>379.7</td>
</tr>
</tbody>
</table>

**Sources:**
- Federal Bureau of Investigation, FBI Uniform Crime Reports.
- Retrieved January 2019 from Community Commons at [http://www.chna.org](http://www.chna.org)

**Notes:**
- Violent crime is composed of four offenses (FBI Index offenses): murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault.
- Note that the quality of crime data can vary widely from location to location, depending on the consistency and completeness of reporting among various jurisdictions.
Community Violence

A total of 2.7% of surveyed Total Area adults acknowledge being the victim of a violent crime in the area in the past five years.

- Similar to national findings.
- Lowest in Moore County.
- TREND: Marks a statistically significant decrease since last measured in 2003.

Victim of a Violent Crime in the Past Five Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>2003</td>
<td>5.0%</td>
<td>2.1%</td>
<td>2.8%</td>
<td>1.5%</td>
<td>3.8%</td>
<td>2.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>2018</td>
<td>2.9%</td>
<td>2.8%</td>
<td>1.5%</td>
<td>1.3%</td>
<td>2.1%</td>
<td>2.2%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]

Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 data also included 4 ZIP Codes in Robeson County.

- Reports of violence are lower among residents age 65+.

Victim of a Violent Crime in the Past Five Years

(Total Area, 2018)

<table>
<thead>
<tr>
<th>Gender</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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.3%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>2.9%</td>
<td>1.3%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>2.2%</td>
<td>2.5%</td>
<td>3.8%</td>
<td>1.1%</td>
<td>4.6%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 46]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Household Safety
The vast majority of Total Area respondents (96.9%) report having at least one working smoke detector in their household.

A lesser 61.2% of respondents report having at least one working carbon monoxide detector.

Household Smoke/Carbon Monoxide Detectors
(Total Area, 2018)

- Residents in Richmond County are least likely to have at least one working smoke detector, and those in Montgomery County are least likely to have at least one working carbon monoxide detector.
Emergency Preparedness

Similar proportions of respondents report having a family emergency plan (65.8%) or an emergency kit that would last the family 3 to 7 days (65.9%).

Household Has a Family Emergency Plan

Family Has an Emergency Kit to Last 3-7 Days

- Lee County residents are most likely to have an emergency kit, while Montgomery County residents are least likely (the proportion of those with family emergency plans is similar by county).

Emergency Preparedness

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 326-327]
Notes: Asked of all respondents.
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 2015 and 2017, there was an annual average age-adjusted diabetes mortality rate of 25.3 deaths per 100,000 population in the Total Area.

- Comparable to the statewide rate.
- Higher than the national rate.
- Fails to satisfy the Healthy People 2020 target (20.5 or lower, adjusted to account for diabetes mellitus-coded deaths).
- Highest in Montgomery and Richmond counties.
The diabetes mortality rate in the Total Area is more than twice as high among Blacks as among Whites.
• TREND: No clear diabetes mortality trend is apparent in the Total Area, though the rate remains 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)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>22.1</td>
<td>21.6</td>
<td>22.6</td>
</tr>
<tr>
<td>2009-2011</td>
<td>25.4</td>
<td>21.4</td>
<td>22.3</td>
</tr>
<tr>
<td>2010-2012</td>
<td>24.5</td>
<td>21.7</td>
<td>21.1</td>
</tr>
<tr>
<td>2011-2013</td>
<td>25.4</td>
<td>22.2</td>
<td>21.2</td>
</tr>
<tr>
<td>2012-2014</td>
<td>23.5</td>
<td>22.7</td>
<td>21.1</td>
</tr>
<tr>
<td>2013-2015</td>
<td>25.6</td>
<td>23.0</td>
<td>21.1</td>
</tr>
<tr>
<td>2014-2016</td>
<td>25.4</td>
<td>23.6</td>
<td>21.1</td>
</tr>
<tr>
<td>2015-2017</td>
<td>25.3</td>
<td>23.6</td>
<td>21.3</td>
</tr>
</tbody>
</table>

Sources:  

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 15.9% of Total Area adults report having been diagnosed with diabetes.

- Less favorable than the statewide proportion.
- Statistically similar to the national proportion.
- Highest in Montgomery and Richmond counties.
- TREND: Diabetes prevalence has increased since 1999.

A total of 85.1% of diabetics are taking insulin or medication for their diabetes.

In addition to the prevalence of diagnosed diabetes referenced above, another 10.5% of Total Area adults report that they have “pre-diabetes” or “borderline diabetes.”

- Comparable to the US prevalence.
- Highest in Montgomery County (not shown).
- TREND: An increase over time (not shown).
Prevalence of Diabetes

Another 10.5% of adults report that they have been diagnosed with "pre-diabetes" or "borderline" diabetes (vs. 9.5% nationwide).

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

- Older adults (note the strong correlation between diabetes and age, with 30.2% of older adults diagnosed with diabetes).
- Lower-income residents.
- Black residents.
Diabetes Treatment & Education

Diabetes-Related Hospitalizations

Most diabetic respondents (89.0%) had no diabetes-related hospitalizations in the past year.

- However, 11.0% of Total Area diabetics had at least one diabetes-related hospitalization in the past year (including 3.9% with three or more).

![Number of Diabetes-Related Hospitalizations or ER Visits in the Past Year](image)

Diabetic hospitalizations are lowest in Montgomery County.

TREND: Changes over time are not statistically significant.

Visited Hospital/ER for Diabetes in Past Year

(Among Total Area Diabetics)

![Visited Hospital/ER for Diabetes in Past Year](image)
Diabetes Education
Just over one-half (53.2%) of respondents with diabetes have taken a course on diabetes management.

Have Taken a Course or Class on Diabetes Management
(Among Total Area Diabetics, 2018)

| Yes | 53.2% |
| No  | 46.8% |

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 312]
Notes: Asked of all diabetic respondents.

Diabetes Testing
Of all area adults, 91.3% report having had their blood sugar level tested within the past three years.

- Another 4.7% were checked more than three years ago, and 4.2% of respondents have never had a blood sugar check.

A total of 97.4% of diabetics have had their blood sugar checked in the past year.

Most Recent Blood Sugar Check by a Healthcare Professional
(Among all Total Area Respondents, 2018)

| Past Year | 81.1% |
| Past 5 Years (>3 Years) | 2.9% |
| Past 2 Years (>1 Year) | 7.4% |
| Past 3 Years (>2 Years) | 2.8% |
| 5+ Years | 1.8% |
| Never | 4.2% |

Diabetics = 97.4%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 140, 313]
Notes: Asked of all respondents.
The prevalence of those with a blood sugar test in the past three years is statistically similar by county.

TREND: Statistically unchanged since first measured in 2011.

Blood sugar testing in the past three years is less common among:

- Young adults (strong correlation with age).
- Those below poverty.
- Hispanic respondents.

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 313]

Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
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 2015 and 2017, there was an annual average age-adjusted Alzheimer’s disease mortality rate of 47.6 deaths per 100,000 population in the Total Area.

- Less favorable than the statewide and national rates.
- Highest in Hoke and Montgomery counties.

Alzheimer’s Disease: Age-Adjusted Mortality
(2015-2017 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 January 2019.

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 Alzheimer’s disease mortality rate appears similar by race.

Alzheimer’s Disease: Age-Adjusted Mortality by Race
(2015-2017 Annual Average Deaths per 100,000 Population)

TREND: Alzheimer’s disease mortality in the Total Area has steadily increased over the past decade. Across North Carolina and the US, rates have increased at a lower rate.

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

About 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 2015 and 2017, there was an annual average age-adjusted kidney disease mortality rate of 15.1 deaths per 100,000 population in the Total Area.

• Statistically similar to the rates found statewide and nationally.
• Notably high in Richmond County.

Kidney Disease: Age-Adjusted Mortality
(2015-2017 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 January 2019.
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.
• Note that rates for Hoke and Montgomery counties are suppressed due to low counts.
• The kidney disease mortality rate in the Total Area appears higher among Blacks.

**Kidney Disease: Age-Adjusted Mortality by Race**
(2015-2017 Annual Average Deaths per 100,000 Population)

<table>
<thead>
<tr>
<th>Race</th>
<th>Total Area</th>
<th>All Races/Ethnicities</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (Non-Hispanic)</td>
<td>11.6</td>
<td>15.1</td>
</tr>
<tr>
<td>Black (Non-Hispanic)</td>
<td>32.0</td>
<td>32.0</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 January 2019.
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 Total Area death rate has slightly decreased over the past decade.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2010</td>
<td>17.6</td>
<td>19.1</td>
<td>17.8</td>
</tr>
<tr>
<td>2009-2011</td>
<td>18.1</td>
<td>18.6</td>
<td>17.2</td>
</tr>
<tr>
<td>2010-2012</td>
<td>16.8</td>
<td>17.5</td>
<td>13.8</td>
</tr>
<tr>
<td>2011-2013</td>
<td>17.0</td>
<td>16.5</td>
<td>13.1</td>
</tr>
<tr>
<td>2012-2014</td>
<td>15.8</td>
<td>16.3</td>
<td>13.2</td>
</tr>
<tr>
<td>2013-2015</td>
<td>14.8</td>
<td>16.3</td>
<td>13.3</td>
</tr>
<tr>
<td>2014-2016</td>
<td>15.4</td>
<td>16.5</td>
<td>13.2</td>
</tr>
<tr>
<td>2015-2017</td>
<td>15.1</td>
<td>16.7</td>
<td>13.2</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 January 2019.
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.
Prevalence of Kidney Disease
A total of 4.6% of Total Area adults report having been diagnosed with kidney disease.

- Similar to the state and national proportions.
- Statistically similar by county.
- TREND: Statistically unchanged since first measured in 2015.

Prevalence of Kidney Disease
(Total Area, 2018)

- A higher prevalence of kidney disease is reported among adults age 40+.
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 Vaccination

Among Total Area older adults (age 65 and older), 73.5% received a flu shot within the past year.

- More favorable than the North Carolina finding.
- Statistically similar to the national finding.
- Satisfies the Healthy People 2020 target (70% or higher).
- Vaccination in this age group is lowest in Hoke and Richmond counties.
- TREND: Flu vaccination has increased since first measured in 2003 (though almost identical to 2015 findings).

A total of 52.0% of high-risk adults age 18 to 64 received a flu shot within the past year.

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

(Among Adults Age 65+)

Healthy People 2020 Target = 70.0% or Higher

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>2003</td>
<td>56.5%</td>
<td>69.6%</td>
<td>70.1%</td>
<td>63.4%</td>
<td>73.5%</td>
<td>66.4%</td>
<td>76.8%</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>66.1%</td>
<td>73.3%</td>
<td>73.5%</td>
<td>64.7%</td>
<td>74.7%</td>
<td>74.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>56.5%</td>
<td>69.6%</td>
<td>70.1%</td>
<td>63.4%</td>
<td>73.5%</td>
<td>66.4%</td>
<td>76.8%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>66.1%</td>
<td>73.3%</td>
<td>74.7%</td>
<td>74.5%</td>
<td>74.5%</td>
<td>74.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comparative Area

Notes:
- “High-Risk” includes adults who report having been diagnosed with heart disease, diabetes, or respiratory disease.
- “High-Risk” includes adults age 18 to 64 who have been diagnosed with heart disease, diabetes, or respiratory disease.
- Trending: Lee County is excluded from the Comparative Area data; note that 2007 data also included 4 ZIP Codes in Robeson County.

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 144-145]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
Pneumonia Vaccination

Among Total Area older adults (65+), 83.2% have received a pneumonia vaccination at some point in their lives.

- Higher than the North Carolina finding.
- Comparable to the national finding.
- Fails to satisfy the Healthy People 2020 target of 90% or higher.
- Vaccination is lowest in Richmond County.
- TREND: A steady increase over time.

A total of 55.4% of high-risk adults age 18 to 64 have ever received a pneumonia vaccination.

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

(Among Adults Age 65+)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>2003</td>
<td>78.3%</td>
<td>83.1%</td>
<td>84.2%</td>
<td>88.0%</td>
<td>70.7%</td>
<td>83.2%</td>
<td>82.7%</td>
<td>83.2%</td>
</tr>
<tr>
<td>2007</td>
<td>71.5%</td>
<td>79.9%</td>
<td>82.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>65.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Healthy People 2020 Target = 90.0% or Higher

**Notes:**
- Reflects respondents 65 and older.
- "High-Risk" includes adults age 18 to 64 who have been diagnosed with heart disease, diabetes, or respiratory disease.
- Trending: Lee County is excluded from the Comparative Area data; note that 2007 data also included 4 ZIP Codes in Robeson County.

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 146-147]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
HIV

About Human Immunodeficiency Virus (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
- Screen 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 2008 and 2017, there was an annual average age-adjusted HIV/AIDS mortality rate of 3.1 deaths per 100,000 population in the Total Area.

- Higher than found across North Carolina and the US.
- Similar to the Healthy People 2020 target (3.3 or lower).

### HIV/AIDS: Age-Adjusted Mortality
(2008-2017 Annual Average Deaths per 100,000 Population)

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

<table>
<thead>
<tr>
<th></th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age-Adjusted HIV/AIDS Mortality</td>
<td>3.1</td>
<td>2.6</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**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.
- Mortality rates by county are not available for this indicator.

- The HIV mortality rate among Blacks is far higher than among Whites.

### HIV/AIDS: Age-Adjusted Mortality by Race
(2008-2017 Annual Average Deaths per 100,000 Population)

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

<table>
<thead>
<tr>
<th></th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (Non-Hispanic)</td>
<td>1.2</td>
<td>10.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Black (Non-Hispanic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Races/Ethnicities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**

**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 2013, there was a prevalence of 270.7 HIV cases per 100,000 population in the Total Area.

- Much more favorable than the statewide and national prevalence.
- Unfavorably high in Hoke County.

#### HIV Prevalence

(Prevalence Rate of HIV per 100,000 Population, 2013)

<table>
<thead>
<tr>
<th>County</th>
<th>Prevalence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>411.2</td>
</tr>
<tr>
<td>Lee County</td>
<td>310.6</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>217.9</td>
</tr>
<tr>
<td>Moore County</td>
<td>170.0</td>
</tr>
<tr>
<td>Richmond County</td>
<td>309.6</td>
</tr>
<tr>
<td>Total Area</td>
<td>270.7</td>
</tr>
<tr>
<td>NC</td>
<td>326.3</td>
</tr>
<tr>
<td>US</td>
<td>353.2</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.
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 2014, the chlamydia incidence rate in the Total Area was 445.2 cases per 100,000 population.

- Comparable to the North Carolina and US incidence rates.
- Highest in Hoke and Richmond counties.

The Total Area gonorrhea incidence rate in 2014 was 119.4 cases per 100,000 population.

- Lower than the North Carolina incidence rate.
- Comparable to the national incidence rate.
- Highest in Hoke County.

Chlamydia & Gonorrhea Incidence
(Incidence Rate per 100,000 Population, 2014)

Sources:
- Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

Notes:
- This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.
Births
Prenatal Care

About Infant & Child Health

Improving the well-being of mothers, infants, and children is an important public health goal for the US. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the healthcare system. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and inter-conception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. Many factors can affect pregnancy and childbirth, including pre-conception health status, age, access to appropriate healthcare, and poverty.

Infant and child health are similarly influenced by socio-demographic factors, such as family income, but are also linked to the physical and mental health of parents and caregivers. There are racial and ethnic disparities in mortality and morbidity for mothers and children, particularly for African Americans. These differences are likely the result of many factors, including social determinants (such as racial and ethnic disparities in infant mortality; family income; educational attainment among household members; and health insurance coverage) and physical determinants (i.e., the health, nutrition, and behaviors of the mother during pregnancy and early childhood).

• Healthy People 2020 (www.healthypeople.gov)

In 2017, a median of 32.6% of all Total Area births did not receive prenatal care in the first trimester of pregnancy.

- Comparable to the North Carolina proportion.
- Fails to satisfy the Healthy People 2020 target (22.1% or lower).
- Lack of prenatal care is highest in Richmond County.

Lack of Prenatal Care in the First Trimester
(Percentage of Live Births, 2017)
Healthy People 2020 Target = 22.1% or Lower

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>27.5%</td>
</tr>
<tr>
<td>Lee County</td>
<td>37.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>32.6%</td>
</tr>
<tr>
<td>Moore County</td>
<td>32.6%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>39.9%</td>
</tr>
<tr>
<td>Total Area (Median)</td>
<td>32.6%</td>
</tr>
<tr>
<td>NC</td>
<td>31.4%</td>
</tr>
</tbody>
</table>

Sources:

Note:
- This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.
Lack of prenatal care is particularly high among Black mothers in Moore County and among Latina mothers in Richmond County.

Lack of Prenatal Care in the First Trimester
(Percentage of Live Births; By Race/Ethnicity, 2017)
Healthy People 2020 Target = 22.1% or Lower

Note: This indicator reports the percentage of women who do not obtain prenatal care during their first trimester of pregnancy. This indicator is relevant because engaging in prenatal care decreases the likelihood of maternal and infant health risks. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers preventing utilization of services.
Birth Outcomes & Risks

Low-Weight Births

A total of 9.2% of 2006-2012 Total Area births were low-weight.

- Comparable to the North Carolina and national proportions.
- Comparable to the Healthy People 2020 target (7.8% or lower).
- Comparable by 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>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>9.1%</td>
</tr>
<tr>
<td>Lee County</td>
<td>10.0%</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>9.2%</td>
</tr>
<tr>
<td>NC</td>
<td>9.1%</td>
</tr>
<tr>
<td>US</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Sources:

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 in the Total Area has increased slightly over the past decade, similar to state and national trends.
**Low-Weight Births**  
(Percent of Live Births)  
**Healthy People 2020 Target = 7.8% or Lower**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>8.9%</td>
<td>8.9%</td>
<td>8.8%</td>
<td>8.9%</td>
<td>9.2%</td>
</tr>
<tr>
<td>NC</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
</tr>
<tr>
<td>US</td>
<td>8.1%</td>
<td>8.1%</td>
<td>8.2%</td>
<td>8.2%</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

**Sources:**  

**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.

**Infant Mortality**  
Between 2015 and 2017, there was an annual average of 8.4 infant deaths per 1,000 live births.

- Similar 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 or lower.
- Highest in Richmond County.

**Infant Mortality Rate**  
(Annual Average Infant Deaths per 1,000 Live Births, 2015-2017)  
**Healthy People 2020 Target = 6.0 or Lower**

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Moore County</th>
<th>Montgomery County</th>
<th>Richmond County</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2017</td>
<td>7.9</td>
<td>8.4</td>
<td>7.5</td>
<td>n/a</td>
<td>11.9</td>
<td>8.4</td>
<td>7.2</td>
<td>5.8</td>
</tr>
</tbody>
</table>

**Sources:**  

**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.  
- Note that the sample for Montgomery County is not large enough to be shown here.
The infant mortality rate is notably higher among births to Black mothers.

**Infant Mortality Rate by Race/Ethnicity**
*(Annual Average Infant Deaths per 1,000 Live Births, 2015-2017)*

*Healthy People 2020 Target = 6.0 or Lower*

- Total Area
  - White (Non-Hispanic): 8.2
  - Black (Non-Hispanic): 13.1
  - All Races/Ethnicities: 8.4

**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:** Following a dip between 2011 and 2014, the Total Area infant mortality rate has trended upward in recent years.

**Infant Mortality Rate**
*(Annual Average Infant Deaths per 1,000 Live Births)*

*Healthy People 2020 Target = 6.0 or Lower*

- Total Area
  - 2008-2010: 6.8
  - 2009-2011: 8.0
  - 2010-2012: 8.3
  - 2011-2013: 8.1
  - 2012-2014: 6.1
  - 2013-2015: 6.2
  - 2014-2016: 6.8
  - 2015-2017: 8.4

- NC
  - 2008-2010: 7.8
  - 2009-2011: 7.4
  - 2010-2012: 7.1
  - 2011-2013: 7.1
  - 2012-2014: 7.2
  - 2013-2015: 7.1
  - 2014-2016: 7.2
  - 2015-2017: 7.2

- US
  - 2008-2010: 6.5
  - 2009-2011: 6.3
  - 2010-2012: 6.1
  - 2011-2013: 6.0
  - 2012-2014: 5.9
  - 2013-2015: 5.9
  - 2014-2016: 5.9
  - 2015-2017: 5.8

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

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 were 58.8 births to women age 15 to 19 per 1,000 women age 15 to 19 in the Total Area.

- Higher than the North Carolina and US rates.
- Highest in Richmond County.

## Teen Birth Rate

(Women Age 15-19 Per 1,000 Female Population Age 15-19, 2006-2012)

<table>
<thead>
<tr>
<th>County</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>57.2</td>
</tr>
<tr>
<td>Lee County</td>
<td>64.9</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>69.1</td>
</tr>
<tr>
<td>Moore County</td>
<td>40.1</td>
</tr>
<tr>
<td>Richmond County</td>
<td>75.9</td>
</tr>
<tr>
<td>Total Area</td>
<td>58.8</td>
</tr>
<tr>
<td>NC</td>
<td>41.7</td>
</tr>
<tr>
<td>US</td>
<td>36.6</td>
</tr>
</tbody>
</table>

Sources:
- Centers for Disease Control and Prevention, National Vital Statistics System. Accessed using CDC WONDER.

Note:
- This indicator reports the rate of total births to women under the age of 15 - 19 per 1,000 female population age 15 - 19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.
• By race and ethnicity, Hispanics/Latinas exhibit the highest rate of teen births in the Total Area (as is also found statewide and nationally), followed by non-Hispanic Blacks.

**Teen Birth Rate**
(Women Age 15-19 Per 1,000 Female Population Age 15-19; Total Area by Race/Ethnicity, 2006-2012)

- **White (Non-Hispanic)**
- **Black (Non-Hispanic)**
- **Hispanic/Latina**
- **All Races/Ethnicities**

**TREND:** The rate has decreased slightly in the Total Area in the past decade, though it remains above state and national rates.

---

**Notes:**
- This indicator reports the rate of total births to women under the age of 15–19 per 1,000 female population age 15–19. This indicator is relevant because in many cases, teen parents have unique social, economic, and health support services. Additionally, high rates of teen pregnancy may indicate the prevalence of unsafe sex practices.
Modifiable Health Risks
**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)
**Fruits/Vegetables**

**Fruits**

More than half (57.6%) of Total Area adults report generally eating less than one serving of fruit per day, and 22.2% report one serving per day.

**Daily Servings of Fresh, Frozen, or Canned Fruit**

(Total Area, 2018)

```
<table>
<thead>
<tr>
<th>Daily Servings</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>21.9%</td>
</tr>
<tr>
<td>Less than One</td>
<td>35.7%</td>
</tr>
<tr>
<td>One</td>
<td>22.2%</td>
</tr>
<tr>
<td>Two</td>
<td>8.8%</td>
</tr>
<tr>
<td>Three/More</td>
<td>11.5%</td>
</tr>
</tbody>
</table>
```

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 344]

Notes: Asked of all respondents.

Conversely, just 19.8% of Total Area respondents report generally consuming two or more servings of fruit per day.

- **Least** common in Montgomery and Richmond counties.
- **TREND:** Fruit consumption has dramatically decreased since first measured in 2007.

**Consume Two or More Servings of Fresh, Frozen, or Canned Fruit Per Day**

```
<table>
<thead>
<tr>
<th>Comparative Area</th>
<th>2007</th>
<th>2011</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>16.0%</td>
<td>12.4%</td>
<td>14.0%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Lee County</td>
<td>25.3%</td>
<td>22.5%</td>
<td>26.0%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>16.0%</td>
<td>14.0%</td>
<td>18.1%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Moore County</td>
<td>25.3%</td>
<td>22.5%</td>
<td>26.9%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>12.4%</td>
<td>14.0%</td>
<td>18.1%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>16.0%</td>
<td>14.0%</td>
<td>18.1%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>
```

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 344]

Notes: Asked of all respondents.

Trending: Lee County is excluded from the Comparative Area data; note that 2007 data also included 4 ZIP Codes in Robeson County.
Area men are less likely to get the recommended servings of daily fruits, as are those of “Other” races.

Consume Two or More Servings of Fresh, Frozen, or Canned Fruit Per Day
(Total Area, 2018)

Vegetables
More than four in 10 Total Area adults (44.6%) report eating less than one serving of vegetables per day, including 14.0% who consume none.

Another 40.8% consume one or two servings per day.
However, just 14.5% of respondents generally eat three or more servings of vegetables per day.

- Most favorable in Moore County.
- TREND: Represents a significant decrease over 2007 findings.

### Consume Three or More Servings of Raw, Fresh, Frozen, or Canned Vegetables Per Day

#### Comparative Area

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>13.3%</td>
<td>12.5%</td>
<td>14.7%</td>
<td>18.0%</td>
<td>11.7%</td>
<td>14.5%</td>
</tr>
<tr>
<td>2011</td>
<td>19.9%</td>
<td>12.5%</td>
<td>15.3%</td>
<td>15.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>19.9%</td>
<td>12.5%</td>
<td>15.3%</td>
<td>15.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>19.9%</td>
<td>12.5%</td>
<td>15.3%</td>
<td>15.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 345]

#### Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2007 data also included 4 ZIP Codes in Robeson County.

- Vegetable consumption is **lowest** among men, those living between 100% and 200% of poverty, and Black residents.

### Consume Three or More Servings of Raw, Fresh, Frozen, or Canned Vegetables Per Day (Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>12.4%</td>
<td>16.2%</td>
<td>15.0%</td>
<td>14.4%</td>
<td>14.3%</td>
<td>16.3%</td>
<td>8.2%</td>
<td>15.2%</td>
<td>15.5%</td>
<td>10.2%</td>
<td>15.9%</td>
<td>14.1%</td>
<td>14.4%</td>
</tr>
<tr>
<td>2011</td>
<td>16.2%</td>
<td>15.0%</td>
<td>14.4%</td>
<td>14.3%</td>
<td>16.3%</td>
<td>8.2%</td>
<td>15.2%</td>
<td>15.5%</td>
<td>10.2%</td>
<td>15.9%</td>
<td>14.1%</td>
<td>14.4%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>15.0%</td>
<td>14.4%</td>
<td>14.3%</td>
<td>16.3%</td>
<td>8.2%</td>
<td>15.2%</td>
<td>15.5%</td>
<td>10.2%</td>
<td>15.9%</td>
<td>14.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>14.4%</td>
<td>14.3%</td>
<td>16.3%</td>
<td>8.2%</td>
<td>15.2%</td>
<td>15.5%</td>
<td>10.2%</td>
<td></td>
<td>15.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 345]

#### 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 with incomes below 100% of the federal poverty level; "Low Income" includes households with incomes at 100-199% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
Access to Fresh Produce

Difficulty Accessing Fresh Produce

While most report little or no difficulty, 20.9% of Total Area adults find it “very” or “somewhat” difficult to access affordable fresh fruits and vegetables.

Level of Difficulty Finding Fresh Produce at an Affordable Price
(Total Area, 2018)

- Very Difficult: 3.3%
- Somewhat Difficult: 17.6%
- Not Too Difficult: 26.1%
- Not At All Difficult: 53.0%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 86]
Notes: Asked of all respondents.

- Comparable to national findings.
- Access difficulty is highest in Richmond County.

Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>19.2%</td>
</tr>
<tr>
<td>Lee County</td>
<td>21.1%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>24.5%</td>
</tr>
<tr>
<td>Moore County</td>
<td>16.8%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>28.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>20.9%</td>
</tr>
<tr>
<td>US</td>
<td>22.1%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 86]
2017 PRC National Health Survey, Professional Research Consultants, Inc.
Notes: Asked of all respondents.
Note the 45.1% of very low-income respondents (under 100% poverty) reporting difficulty buying fresh produce, compared to 6.9% of those above 200% poverty. Others more likely to report difficulty getting fresh fruits and vegetables include:

- Women.
- Adults under age 65.
- Black residents.

### Find It “Very” or “Somewhat” Difficult to Buy Affordable Fresh Produce
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Income 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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17.8%</td>
<td>23.7%</td>
<td>23.4%</td>
<td>21.2%</td>
<td>16.6%</td>
<td>45.1%</td>
<td>38.5%</td>
<td>6.9%</td>
<td>16.8%</td>
<td>34.6%</td>
<td>18.4%</td>
<td>18.5%</td>
<td>20.9%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 86]

Notes:
- 2018 PRC Community Health Survey: Professional Research Consultants, Inc. [Item 86]
- Aged 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

### Sources for Healthy Foods

Survey respondents were 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 selections were allowed).

The largest share of responses (97.3%) was for grocery or super stores such as Walmart, followed by farmer’s markets or permanent farm stands (mentioned by 59.2%).

- Less common sources for fresh produce include gas stations or convenience stores (13.2%) and church/community organizations or food banks/pantries (10.8%).
**Sources for Fresh Fruits/Vegetables in the Past Year**
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Source</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Moore County</th>
<th>Montgomery County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery/Superstore (i.e., Walmart)</td>
<td>96.3%</td>
<td>95.3%</td>
<td>97.4%</td>
<td>94.2%</td>
<td>97.3%</td>
<td>96.3%</td>
</tr>
<tr>
<td>Farmer’s Market/Permanent Farm Stand*</td>
<td>66.6%</td>
<td>66.6%</td>
<td>51.0%</td>
<td>60.6%</td>
<td>59.2%</td>
<td>65.6%</td>
</tr>
<tr>
<td>Corner/Convenience/Gas Station</td>
<td>16.1%</td>
<td>16.1%</td>
<td>13.6%</td>
<td>12.2%</td>
<td>13.7%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Food Bank/Pantry or Church/Community Organization*</td>
<td>6.0%</td>
<td>8.7%</td>
<td>11.4%</td>
<td>10.8%</td>
<td>16.1%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Notes:  
*These questions were asked differently in 2011, so comparisons cannot be made.

**TREND:** No significant changes in fresh produce sources in the Comparative Area over time.

**Sources for Fresh Fruits/Vegetables in the Past Year**
(Comparative Area, 2018)

<table>
<thead>
<tr>
<th>Source</th>
<th>2011</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery/Superstore (i.e., Walmart)</td>
<td>94.7%</td>
<td>97.3%</td>
<td>97.7%</td>
</tr>
<tr>
<td>Farmer’s Market/Permanent Farm Stand*</td>
<td>63.8%</td>
<td>16.2%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>
| Corner/Convenience/Gas Station      | 14.2%  | ![Bar chart showing the percentage of responses for Corner/Convenience/Gas Station in 2011, 2015, and 2018.](chart)
| Food Bank/Pantry or Church/Community Organization* | 13.6%  | 10.9%  | 12.4%  |

Notes:  
*These questions were asked differently in 2011, so comparisons cannot be made.

Trending: Lee County is excluded from the Comparative Area data.
Low Food Access (Food Deserts)

US Department of Agriculture data show that 22.3% of the Total Area population (representing over 59,734 residents) have low food access or live in a “food desert,” meaning that they do not live near a supermarket or large grocery store.

- Similar to statewide and national findings.
- Low food access is highest in Moore County.

Population With Low Food Access
(Percent of Population That Is Far From a Supermarket or Large Grocery Store, 2015)

Sources:  


Notes:
- 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.

- The following map provides an illustration of food deserts by census tract. Note the large share of residents with limited food access in portions of each Total Area county.
Whole Grains

More than seven in 10 Total Area adults (72.4%) report generally eating less than one serving of whole grain breads per day, including 36.5% who consume none.

- Another 15.0% report eating one serving per day.
Daily Servings of Whole Grain Breads
(Total Area, 2018)

None 36.5%
Less Than One 35.9%
One 15.0%
Two 5.2%
Three/More 7.4%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 343]
Notes: Asked of all respondents.
In this case, whole grain breads include wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain, and bran breads.

Just 12.0% of Total Area respondents report generally eating two or more servings of whole grain breads per day.

- Similar by county.
- TREND: A notable decrease in whole grain bread consumption since first measured in 2007.

Consume Two or More Servings of Whole Grain Breads Per Day

<table>
<thead>
<tr>
<th></th>
<th>Comparative Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>35.7%</td>
</tr>
<tr>
<td>2011</td>
<td>22.9%</td>
</tr>
<tr>
<td>2015</td>
<td>21.4%</td>
</tr>
<tr>
<td>2018</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 343]
Notes: Asked of all respondents.
In this case, whole grain breads include wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain, and bran breads.
Trending: Lee County is excluded from the Comparative Area data; note that 2007 data also included 4 ZIP Codes in Robeson County.
Whole grain bread consumption appears highest among:

- Men.
- Adults age 65 or older.
- Those living between 100% and 200% of poverty.
- Black residents.

Consume Two or More Servings of Whole Grain Breads Per Day (Total Area, 2018)

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>14.7%</td>
<td>9.7%</td>
<td>9.1%</td>
<td>11.4%</td>
<td>18.0%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Women</td>
<td>18.1%</td>
<td>9.3%</td>
<td>9.1%</td>
<td>11.4%</td>
<td>18.0%</td>
<td>11.9%</td>
</tr>
<tr>
<td>18 to 39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 to 64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Low Income</td>
<td>11.7%</td>
<td>16.7%</td>
<td>11.2%</td>
<td>12.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Income</td>
<td>9.7%</td>
<td>16.7%</td>
<td>11.2%</td>
<td>12.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>6.1%</td>
<td>16.7%</td>
<td>11.2%</td>
<td>12.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>14.7%</td>
<td>9.7%</td>
<td>9.1%</td>
<td>11.4%</td>
<td>18.0%</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 343]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- In this case, whole grain breads include wheat, rye, oatmeal, pumpernickel, cracked wheat, multi-grain, and bran breads.

Sugar-Sweetened Beverages

While 43.9% of Total Area adults report drinking no sugar-sweetened beverages on the day preceding the survey, most respondents (56.1%) report an average of at least one sugar-sweetened beverage.

- Note that one in five respondents (20.5%) report drinking three or more of these sugar-sweetened beverages in the day before the interview.
Servings of Sugar-Sweetened Beverages Consumed Yesterday
(Total Area, 2018)

None 43.9%
Three/More 20.5%
Two 14.3%
One 21.3%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 351]
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.

- Highest in Montgomery and Richmond counties.
- TREND: Statistically unchanged since first measured in 2011.

Consumed at Least One Sugar-Sweetened Beverage Yesterday

Those more likely to consume this level of sugar-sweetened beverages include:

- Younger adults.
- Lower-income residents (<200% of poverty).
- Non-Whites.
Consumed at Least One Sugar-Sweetened Beverage Yesterday
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>58.1%</td>
<td>54.4%</td>
<td>68.3%</td>
<td>54.2%</td>
<td>41.2%</td>
<td>62.2%</td>
<td>62.4%</td>
<td>53.7%</td>
<td>51.7%</td>
<td>64.6%</td>
<td>69.6%</td>
<td>66.4%</td>
<td>56.1%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 351]

Notes:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 351]
- 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 household income as a ratio to the federal poverty level (FPL) for their household size. "Very Low Income" includes households with incomes below 100% of the federal poverty level; "Low Income" includes households with incomes at 100-199% 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 (86.1%) of Total Area adults eat meals prepared at home on at least four days per week.

- Conversely, 13.9% of survey respondents eat meals prepared at home fewer than four days per week.

Number of Days Eating Meals Prepared at Home Each Week
(Total Area, 2018)

- Four/More Days 86.1%
- Three Days 8.8%
- Two Days 3.1%
- One Day/Less 2.0%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 350]

Notes:
- Asked of all respondents.
Residents in Richmond County are least likely to eat meals prepared at home at least four days per week.

TREND: Changes over time are not statistically significant.

Eat Meals Prepared at Home Fewer Than Four Days Per Week

Younger adults, those living between 100% and 200% of poverty, and Black residents report fewer meals prepared at home.
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, 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)
Leisure-Time Physical Activity
A total of 29.9% of Total Area adults report no leisure-time physical activity in the past month.

- Less favorable than statewide and national findings.
- Satisfies the Healthy People 2020 target (32.6% or lower).
- Comparable by county.
- TREND: Statistically unchanged since 1999.

No Leisure-Time Physical Activity in the Past Month
Healthy People 2020 Target = 32.6% or Lower

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 89]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents.

- Lack of leisure-time physical activity in the area is less favorable among lower-income residents.
No Leisure-Time Physical Activity in the Past Month
(Total Area, 2018)
Healthy People 2020 Target = 32.6% or Lower

<table>
<thead>
<tr>
<th>Sex</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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>28.4%</td>
<td>31.2%</td>
<td>30.7%</td>
<td>32.7%</td>
<td>36.8%</td>
<td>39.1%</td>
<td>25.4%</td>
<td>28.1%</td>
<td>31.8%</td>
<td>30.1%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Women</td>
<td>25.4%</td>
<td>28.1%</td>
<td>31.8%</td>
<td>30.1%</td>
<td>33.0%</td>
<td>29.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 89]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Activity Levels

Adults

**Recommended Levels of Physical Activity**

Adults should do 2 hours and 30 minutes a week of moderate-intensity (such as walking), or 1 hour and 15 minutes (75 minutes) a week of vigorous-intensity aerobic physical activity (such as jogging), or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. The guidelines also recommend that adults do muscle-strengthening activities, such as push-ups, sit-ups, or activities using resistance bands or weights. These activities should involve all major muscle groups and be done on two or more days per week.

The report finds that nationwide nearly 50 percent of adults are getting the recommended amounts of aerobic activity and about 30 percent are engaging in the recommended muscle-strengthening activity.

- Learn more about CDC’s efforts to promote walking by visiting [http://www.cdc.gov/vitalsigns/walking](http://www.cdc.gov/vitalsigns/walking).

**Aerobic & Strengthening Physical Activity**

Based on reported physical activity intensity, frequency, and duration over the past month, 44.6% of Total Area adults are found to be “insufficiently active” or “inactive.”

Six in 10 Total Area adults (60.2%) do not participate in any types of physical activities or exercises to strengthen their muscles.

**Participation in Physical Activities**

(Total Area, 2018)

Survey respondents were asked about the types of physical activities they engaged in during the past month, as well as the frequency and duration of these activities.

- “Inactive” includes those reporting no aerobic physical activity in the past month.
- “Insufficiently active” includes those with the equivalent of 1-150 minutes of aerobic physical activity per week.
- “Active” includes those with 150-300 minutes of weekly aerobic physical activity.
- “Highly active” includes those with >300 minutes of weekly aerobic physical activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inactive</td>
<td>35.4%</td>
</tr>
<tr>
<td>Insufficiently Active</td>
<td>9.2%</td>
</tr>
<tr>
<td>Active</td>
<td>18.3%</td>
</tr>
<tr>
<td>Highly Active</td>
<td>37.1%</td>
</tr>
<tr>
<td>Not At All</td>
<td>60.2%</td>
</tr>
<tr>
<td>2+ Times/Wk</td>
<td>31.3%</td>
</tr>
<tr>
<td>1 Time/Wk</td>
<td>5.3%</td>
</tr>
<tr>
<td>&lt;1 Time/Wk</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

**Notes:**
- Reflects the total sample of respondents.
- “Inactive” aerobic activity represents those adults participating in no aerobic activity in the past week. “Insufficiently active” reflects those respondents with 1-149 minutes of aerobic activity in the past week. “Active” adults are those with 150-300 minutes of aerobic activity per week, and “highly active” adults participate in 301+ minutes of aerobic activity weekly.
**Recommended Levels of Physical Activity**

A total of 23.0% of Total Area adults regularly participate in adequate levels of both aerobic and strengthening activities (meeting physical activity recommendations).

- More favorable than state findings.
- Similar to the nation.
- Satisfies the Healthy People 2020 target (20.1% or higher)
- Least common in Montgomery County.

**Meets Physical Activity Recommendations**

*Healthy People 2020 Target = 20.1% or Higher*

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>22.2%</td>
</tr>
<tr>
<td>Lee County</td>
<td>21.9%</td>
</tr>
<tr>
<td>Montgomery</td>
<td>15.9%</td>
</tr>
<tr>
<td>Moore County</td>
<td>27.1%</td>
</tr>
<tr>
<td>Richmond</td>
<td>22.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>23.0%</td>
</tr>
<tr>
<td>NC</td>
<td>18.8%</td>
</tr>
<tr>
<td>US</td>
<td>22.8%</td>
</tr>
</tbody>
</table>

Sources:  
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.  
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.  

Notes:  
- Asked of all respondents.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice per week.

Those less likely to meet physical activity requirements include:

- Women.
- Adults age 40+.
- Very low-income residents.

Differences by race/ethnicity are not statistically significant.
Meets Physical Activity Recommendations
(Total Area, 2018)
Healthy People 2020 Target = 20.1% or Higher

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 152]

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 with incomes below 100% of the federal poverty level, “Low Income” includes households with incomes at 100-199% of the federal poverty level, “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- Meeting both guidelines is defined as the number of persons age 18+ who report light or moderate aerobic activity for at least 150 minutes per week or who report vigorous physical activity 75 minutes per week or an equivalent combination of moderate and vigorous-intensity activity and report doing physical activities specifically designed to strengthen muscles at least twice.

Children

Recommended Levels of Physical Activity

Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day.


Among Total Area children age 2 to 17, just over half (55.3%) are reported to have had 60 minutes of physical activity on each of the seven days preceding the interview (1+ hours per day).

- Comparable to that seen nationally.
- Highest in Hoke and Richmond counties.
- By age, teens are less likely to meet this level of physical activity (no significant difference by gender).
Child Is Physically Active for One or More Hours per Day
(Among Children Age 2-17)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 124]
2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children age 2-17 at home.
- Includes children reported to have one or more hours of physical activity on each of the seven days preceding the survey.
- Note that the sample for Montgomery County is not large enough to be shown here.

Access to Physical Activity

Amenities Within Walking Distance

Just 31.2% of survey respondents indicate that there is a playground or park located within walking distance of their home.

- Least common in Hoke County.
- TREND: Differences over time are not statistically significant.

Have a Park or Playground Within Walking Distance of Home

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 353]

Notes:
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.
A total of 21.2% of survey respondents can purchase healthy foods within walking distance of their home.

- Least common in Hoke County.
- TREND: No significant change over time.

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

#### Comparative Area

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>15.9%</td>
<td>22.5%</td>
<td>27.9%</td>
<td>20.9%</td>
<td>20.7%</td>
<td>20.9%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21.2%</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.8%</td>
</tr>
</tbody>
</table>

**Sources:** 2018 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 354)

**Notes:**
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data.

### Neighborhood Attributes

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

The neighborhood attribute most often acknowledged by respondents was **safety for walking during the day** (90.5%).

- Lesser-acknowledged attributes include **safety for walking at night** (57.4%), **adequate lighting** (51.6%), **safe crosswalks** (30.4%), and **good sidewalks** (20.2%).
- By county, Moore County residents reported the lowest prevalence of walking safety (day or night). Montgomery County residents reported the lowest prevalence of adequate lighting and good sidewalks.
Perceptions of Neighborhood Safety
(Total Area, 2018)

Perceptions of Neighborhood Safety
(Comparative Area, 2018)

TREND: Differences over time in the Comparative Area are not statistically significant.
Access to Recreation & Fitness Facilities

In 2016, there were 6.7 recreation/fitness facilities for every 100,000 population in the Total Area.

- Below what is found statewide and nationally.
- Least prevalent in Montgomery and Richmond counties (note there are no facilities in Montgomery).

Population With Recreation & Fitness Facility Access
(Number of Recreation & Fitness Facilities per 100,000 Population, 2016)

<table>
<thead>
<tr>
<th>County</th>
<th>Recreation &amp; Fitness Facilities per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>6.4</td>
</tr>
<tr>
<td>Lee County</td>
<td>13.8</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>0.0</td>
</tr>
<tr>
<td>Moore County</td>
<td>5.7</td>
</tr>
<tr>
<td>Richmond County</td>
<td>4.3</td>
</tr>
<tr>
<td>Total Area</td>
<td>6.7</td>
</tr>
<tr>
<td>NC</td>
<td>11.8</td>
</tr>
<tr>
<td>US</td>
<td>11.0</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau, County Business Patterns. Additional data analysis by CARES.

Notes: Recreation and fitness facilities are defined by North American Industry Classification System (NAICS) Code 713940, which includes 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.

Screen Time

The majority (54.2%) of Total Area respondents acknowledge spending three or more hours per day looking at screens for recreation.

- Just 4.1% do not report any screen time.

“In general, about how many hours per day do you watch TV, play video games, or use the computer or smart phone for recreation?”
Average Hours of Screen Time Per Day
(Total Area Adults Age 18+, 2018)

- None 4.1%
- One 19.5%
- Two 22.2%
- Three/More 54.2%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 352]
Notes: Asked of all respondents.
In this case, "screen time" includes watching TV, playing video games, or using the computer or smart phone for recreation.

- There are no significant differences by county for 3+ hours of screen time.

Three or More Hours of Screen Time per Day

<table>
<thead>
<tr>
<th>County</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>54.5%</td>
</tr>
<tr>
<td>Lee County</td>
<td>55.8%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>52.9%</td>
</tr>
<tr>
<td>Moore County</td>
<td>51.0%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>58.8%</td>
</tr>
<tr>
<td>Total Area</td>
<td>54.2%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 352]
Notes: Asked of all respondents.
In this case, "screen time" includes watching TV, playing video games, or using the computer or smart phone for recreation.
Note the relatively high proportions of older adults, lower-income adults, and Black residents reporting 3+ hours of daily screen time.

Three or More Hours of Screen Time per Day
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 352]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- In this case, “screen time” includes watching TV, playing video games, or using the computer or smart phone for recreation.
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: [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.


### Adult Weight Status

<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>

Overweight Status

More than three-quarters (76.8%) of Total Area adults are overweight.

- Far higher than the North Carolina or US overweight prevalence.
- Lowest in Moore County.
- TREND: Overweight has increased steadily over time.

Prevalence of Total Overweight (Overweight or Obese)
(Percent of Adults With a Body Mass Index of 25.0 or Higher)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>81.1%</td>
<td>81.9%</td>
<td>81.7%</td>
<td>68.9%</td>
<td>78.7%</td>
<td>76.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>62.9%</td>
<td>67.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>69.1%</td>
<td>70.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>73.5%</td>
<td>75.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>76.8%</td>
<td>75.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>76.8%</td>
<td>76.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 154]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

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, regardless of gender.
- The definition for obesity is a BMI greater than or equal to 30.0.
- Trendline: Lee County is excluded from the Comparative Area data. Note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

Further, 42.5% of Total Area adults are obese.

- Less favorable than state or national findings.
- Fails to satisfy the Healthy People 2020 target (30.5% or lower).
- Lowest in Moore County.
- TREND: Denotes a statistically significant increase in obesity since 1999.

“Obese” (also included in overweight prevalence discussed previously) includes respondents with a BMI value ≥30.
**Prevalence of Obesity**

(Percent of Adults With a Body Mass Index of 30.0 or Higher)

*Healthy People 2020 Target = 30.5% or Lower*

- Note the 56.2% of Black residents who are obese (compared to 21.3% of “Other” race residents).
- This prevalence is also higher among adults under age 65.

**Notes:**
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

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**Prevalence of Obesity**

(Percent of Adults With a BMI of 30.0 or Higher; Total Area, 2018)

*Healthy People 2020 Target = 30.5% or Lower*

|  | Men | Women | 18 to 30 | 40 to 64 | 65+ | Very Low Income | Low Income | Mid/High Income | White | Black | Hispanic | Other | Total Area |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41.3% | 43.6% | 44.6% | 45.6% | 34.3% | 41.9% | 43.9% | 42.2% | 56.2% | 44.4% | 21.3% | 42.5% |

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. (Item 154)

**Notes:**
- Based on reported heights and weights, asked of all respondents.
- The definition of obesity is having a body mass index (BMI), a ratio of weight to height (kilograms divided by meters squared), greater than or equal to 30.0, regardless of gender.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
- Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., “White” reflects non-Hispanic White respondents).
- Income categories reflect respondents’ household income as a ratio to the federal poverty level (FPL) for their household size. “Very Low Income” includes households with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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:

- High blood pressure.
- High cholesterol.
- Chronic depression.
- Activity limitations.
- “Fair” or “poor” physical health.
- Diabetes.

### Relationship of Overweight With Other Health Issues
(By Weight Classification; Total Area, 2018)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Healthy Weight</th>
<th>Overweight/Not Obese</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>33.7%</td>
<td>42.7%</td>
<td>59.4%</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>23.5%</td>
<td>39.2%</td>
<td>42.8%</td>
</tr>
<tr>
<td>Chronic Depression</td>
<td>23.0%</td>
<td>31.3%</td>
<td>38.1%</td>
</tr>
<tr>
<td>Activity Limitations</td>
<td>20.8%</td>
<td>24.6%</td>
<td>30.8%</td>
</tr>
<tr>
<td>&quot;Fair/Poor&quot; Health</td>
<td>12.8%</td>
<td>16.8%</td>
<td>29.3%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>6.2%</td>
<td>13.0%</td>
<td>22.7%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 5, 100, 109, 129-130, 140]

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

Children’s Weight Status

### 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 <5<sup>th</sup> percentile
- Healthy Weight ≥5<sup>th</sup> and <85<sup>th</sup> percentile
- Overweight ≥85<sup>th</sup> and <95<sup>th</sup> percentile
- Obese ≥95<sup>th</sup> percentile

*Centers for Disease Control and Prevention*
Based on the heights/weights reported by surveyed parents, 35.9% of Total Area children age 5 to 17 are overweight or obese (≥85th percentile).

- Similar to that found nationally.
- TREND: Statistically unchanged since first measured in 2011.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>35.9%</td>
<td>33.0%</td>
</tr>
<tr>
<td>2015</td>
<td>33.0%</td>
<td>33.0%</td>
</tr>
<tr>
<td>2018</td>
<td>38.2%</td>
<td>38.2%</td>
</tr>
</tbody>
</table>

**Comparative Area**

<table>
<thead>
<tr>
<th>Year</th>
<th>35.4%</th>
<th>39.6%</th>
<th>38.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]
- 2017 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.
- Trending: Lee County is excluded from the Comparative Area data.

Further, 16.5% of area children age 5 to 17 are obese (≥95th percentile).

- Statistically comparable to the national percentage.
- Comparable to the Healthy People 2020 target (14.5% or lower for age 2-19).
- TREND: Differences over time are not statistically significant.
- This prevalence is much lower among teens (statistically similar by child’s sex).
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:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 158]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents with children age 5-17 at home.
- 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.
- Trending: Lee County is excluded from the Comparative Area data.
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 2015 and 2017, the Total Area reported an annual average age-adjusted cirrhosis/liver disease mortality rate of 13.6 deaths per 100,000 population.

- Above the statewide and national rates.
- Fails to satisfy the Healthy People 2020 target (8.2 or lower).
- Highest in Richmond County.
Cirrhosis/Liver Disease: Age-Adjusted Mortality
(2015-2017 Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 8.2 or Lower

Sources:

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.
- Note that rates for Hoke and Montgomery are suppressed due to low counts.

TREND: Over the past decade, the Total Area mortality rate has increased at a greater rate than seen statewide or nationally.

Cirrhosis/Liver Disease: Age-Adjusted Mortality Trends
(Annual Average Deaths per 100,000 Population)
Healthy People 2020 Target = 8.2 or Lower

Sources:

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.
Alcohol Use

Excessive Drinking

A total of 17.0% of area adults are excessive drinkers (heavy and/or binge drinkers).

- More favorable than the national proportion.
- Satisfies the Healthy People 2020 target (25.4% or lower).
- Lowest in Montgomery County.
- TREND: Statistically unchanged since first measured in 2015.

**Excessive Drinkers**

*Healthy People 2020 Target = 25.4% or Lower*

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>18.2%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Lee County</td>
<td>7.0%</td>
<td></td>
</tr>
<tr>
<td>Montgomery County</td>
<td>18.8%</td>
<td></td>
</tr>
<tr>
<td>Moore County</td>
<td>17.2%</td>
<td></td>
</tr>
<tr>
<td>Richmond County</td>
<td>17.0%</td>
<td></td>
</tr>
<tr>
<td>Total Area</td>
<td>22.5%</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>15.2%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

**Comparative Area**

**Sources:**
- 2018 PRC Community Health Survey; Professional Research Consultants, Inc. [Item 168]
- 2017 PRC National Health Survey; Professional Research Consultants, Inc.

**Notes:**
- 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.
- Excessive drinking is statistically more prevalent among men, younger adults, and those above 200% poverty.
Excessive Drinkers
(Total Area, 2018)
Healthy People 2020 Target = 25.4% or Lower

Age-Adjusted Unintentional Drug-Related Deaths
Between 2015 and 2017, there was an annual average age-adjusted unintentional drug-related mortality rate of 15.3 deaths per 100,000 population in the Total Area.

- Lower than the statewide rate.
- Similar to the national rate.
- Fails to satisfy the Healthy People 2020 target (11.3 or lower).
- Highest in Lee County.
Unintentional Drug-Related Deaths: Age-Adjusted Mortality
(2015-2017 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 January 2019.

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.
- Note that the rates for Hoke and Montgomery counties are suppressed due to low counts.

- TREND: The mortality rate has increased in the region, similar to North Carolina and US trends.
Drug Use

Illegal Drugs

Self

A total of 1.2% of Total Area adults acknowledge personally using an illicit drug in the past month.

- Lower than the proportion found nationally.
- Satisfies the Healthy People 2020 target of 7.1% or lower.
- Highest in Richmond County.
- TREND: Marks a statistically significant decrease over time.

Illicit Drug Use in the Past Month
Healthy People 2020 Target = 7.1% or Lower

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 59]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Reported illicit drug use is less prevalent among Hispanics and those between 100% and 200% of poverty.
### Illicit Drug Use in the Past Month
(Total Area, 2018)

**Healthy People 2020 Target = 7.1% 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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6%</td>
<td>0.8%</td>
<td>1.6%</td>
<td>1.2%</td>
<td>0.6%</td>
<td>1.8%</td>
<td>0.2%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>2.8%</td>
<td>1.2%</td>
<td></td>
</tr>
</tbody>
</table>

**Member of Household**

A total of 5.1% of Total Area adults acknowledge that a member of their household has used an illegal drug in the past month.

- Most prevalent in Lee County.
- **TREND**: Differences over time are not statistically significant.

### Illegal Drug Use by Self/Household Member in the Past Year

<table>
<thead>
<tr>
<th></th>
<th>Hoke County</th>
<th>Lee County</th>
<th>Montgomery County</th>
<th>Moore County</th>
<th>Richmond County</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.7%</td>
<td>7.7%</td>
<td>4.4%</td>
<td>4.8%</td>
<td>5.4%</td>
<td>5.1%</td>
</tr>
<tr>
<td>2015</td>
<td>3.0%</td>
<td>4.6%</td>
<td>4.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>3.0%</td>
<td>4.6%</td>
<td>4.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 56]

**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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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.**

**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.

- **When looking by demographics, household illegal drug use is most common among those under age 65.**
Illicit Drug Use by Self/Household Member in the Past Year
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 322]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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.

Prescription Drugs

A total of 2.7% of Total Area adults acknowledge the misuse of a prescription medication by a member of their household in the past year.

- Most common in Moore County.
- TREND: No significant change over time.

Prescription Drug Misuse by Self/Household Member in the Past Year

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 323]

Notes:
- Asked of all respondents.
- In this case, the term “prescription drug misuse” is a person sharing prescription medication with others, or taking prescription medications that were not prescribed to them.
- Trending: Lee County is excluded from the Comparative Area data.

“In the past 12 months, have you or has anyone living in this household shared prescription medications with others, or taken prescription medications that were not prescribed to them?”
• Least common among older adults (age 65+) and Hispanic residents.

**Prescription Drug Misuse by Self/Household Member in the Past Year**
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low Income</td>
<td>2.5%</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.8%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>3.4%</td>
</tr>
<tr>
<td>White</td>
<td>3.2%</td>
</tr>
<tr>
<td>Black</td>
<td>0.6%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.5%</td>
</tr>
<tr>
<td>Other</td>
<td>4.5%</td>
</tr>
<tr>
<td>Total</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

**Notes:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 323]
- 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 with incomes below 100% of the federal poverty level. “Low Income” includes households with incomes at 100-199% 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 “prescription drug misuse” is a person sharing prescription medication with others, or taking prescription medications that were not prescribed by the person.

**Alcohol & Drug Treatment**

A total of 4.4% of Total Area adults report that they have sought professional help for an alcohol or drug problem at some point in their lives.

- Similar to national findings.
- Lowest in Lee and Moore counties.
- TREND: Statistically unchanged over time.

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

<table>
<thead>
<tr>
<th>Comparative Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
</tr>
<tr>
<td>Lee County</td>
</tr>
<tr>
<td>Montgomery County</td>
</tr>
<tr>
<td>Moore County</td>
</tr>
<tr>
<td>Richmond County</td>
</tr>
<tr>
<td>Total Area</td>
</tr>
<tr>
<td>US</td>
</tr>
</tbody>
</table>

**Notes:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 60]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
- Asked of all respondents.
- Trending Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
Personal Impact from Substance Abuse

Area adults were also asked to what degree their lives have been impacted by substance abuse (whether their own abuse or that of another).

In all, most respondents have not been personally impacted (58.4% “not at all” responses).

- In contrast, 41.6% of survey respondents indicate that their lives have been impacted by substance abuse, including 10.7% who report having been impacted “a great deal.”

Degree to Which Life Has Been Negatively Affected by Substance Abuse (Self or Other’s)
(Total Area, 2018)

- The prevalence of Total Area respondents who have been impacted by substance abuse (41.6%) is higher than the US figure.
- No significant difference by county.
Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 61]
2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: Asked of all respondents.
Includes response of "a great deal," "somewhat," and "a little."
The prevalence of survey respondents whose lives have been impacted by substance abuse, whether their own abuse or that of another, is higher among the following:

- Women.
- Adults age 40-64.
- White or Black respondents (especially White).

### Life Has Been Negatively Affected by Substance Abuse (by Self or Someone Else)
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>38.7%</td>
<td>44.1%</td>
<td>41.8%</td>
<td>45.9%</td>
<td>33.8%</td>
<td>45.0%</td>
<td>40.3%</td>
<td>41.3%</td>
<td>46.8%</td>
<td>36.9%</td>
<td>15.9%</td>
<td>23.2%</td>
<td>41.6%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 61]
Notes:
- Asked of all respondents.
- Includes response of "a great deal," "somewhat," and "a little."
- 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 with incomes below 100% of the federal poverty level; "Low Income" includes households with incomes at 100-199% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
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.

- Healthy People 2020 (www.healthypeople.gov)

Cigarette Smoking

Cigarette Smoking Prevalence

A total of 15.2% of Total Area adults currently smoke cigarettes, either regularly (10.7% every day) or occasionally (4.5% on some days).

![Cigarette Smoking Prevalence](image)

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 159]

**Notes:**
- Asked of all respondents.
• Similar to statewide and national findings.
• Fails to satisfy the Healthy People 2020 target (12% or lower).
• Least favorable in Hoke and Richmond counties.
• TREND: The percentage has significantly decreased over time.

**Current Smokers**

**Healthy People 2020 Target = 12.0% or Lower**

<table>
<thead>
<tr>
<th>Year</th>
<th>Comparative Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>27.0%</td>
<td>21.1%</td>
<td>17.2%</td>
</tr>
<tr>
<td>2003</td>
<td>27.4%</td>
<td>22.8%</td>
<td>16.3%</td>
</tr>
<tr>
<td>2007</td>
<td>21.1%</td>
<td>17.2%</td>
<td>16.3%</td>
</tr>
<tr>
<td>2011</td>
<td>21.6%</td>
<td>15.2%</td>
<td>16.3%</td>
</tr>
<tr>
<td>2015</td>
<td>15.6%</td>
<td>15.2%</td>
<td>16.3%</td>
</tr>
<tr>
<td>2018</td>
<td>15.6%</td>
<td>15.2%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 159]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Includes regular and occasional smokers (those who smoke cigarettes every day or on some days).
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

Cigarette smoking is more prevalent among:

• Adults under age 65.
• Very low-income residents.
• White residents.
• Black residents.
Current Smokers
(Total Area, 2018)
Healthy People 2020 Target = 12.0% or Lower

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 159]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
- Includes regular and occasion smokers (every day and some days).

Length of Time Spent as a Smoker
Current and former smokers were asked how long they have smoked over their lifetimes (not including periods of cessation).

A total of 62.2% of current/former smokers smoked for over 10 years, which includes 19.6% who have spent over 30 years smoking.
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

More than one-half of regular smokers (52.7%) went without smoking for one day or longer in the past year because they were trying to quit smoking.

- Notably higher than the national percentage.
- Far from satisfying the Healthy People 2020 target (80% or higher).
- TREND: No statistically significant change from 1999 findings.

Have Stopped Smoking for One Day or Longer in the Past Year in an Attempt to Quit Smoking
(Among Everyday Smokers)
Healthy People 2020 Target = 80.0% or Higher

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 50]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of respondents who smoke cigarettes every day.
- Trend: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
Length of Time Since Quitting
Among former smokers, almost three-quarters (74.8%) report that it has been more than five years since they quit smoking.

- Another 18.1% quit between one and five years ago.

Method Used to Quit Smoking
Seven in 10 former smokers (70.6%) quit “cold turkey.”

- Another 8.8% relied on some type of over-the-counter aid (such as a patch or gum), and 5.5% report using self-discipline.
Environmental Tobacco Smoke

A total of 18.5% of Total Area adults (including smokers and nonsmokers) report being regularly exposed to secondhand smoke.

- Most common in Richmond County.

Among those who report being regularly exposed, note that the most common location for secondhand smoke reported is **home** (46.9%), followed by **work** (20.0%), **a family/friend’s home** (13.1%), and **public places** (10.4%).

Exposure to secondhand smoke is statistically higher among the following:

- Men.
- Adults under age 65.
- Lower-income residents.
- Black residents.

**Regularly Exposed to Secondhand Smoke**

Locations mentioned most often include home (46.9%), work (20.0%), family/friend’s home (13.1%), and public places (10.4%).
Regularly Exposed to Secondhand Smoke
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure</td>
<td>22.0%</td>
<td>15.3%</td>
<td>22.7%</td>
<td>20.4%</td>
<td>8.7%</td>
<td>25.9%</td>
<td>22.7%</td>
<td>15.0%</td>
<td>16.2%</td>
<td>22.7%</td>
<td>18.7%</td>
<td>23.7%</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 319]
Notes: Asked of all respondents.

Other Tobacco Use

Use of Vaping Products

A total of 4.2% of Total Area adults currently use electronic cigarettes (e-cigarettes) or other electronic vaping products either regularly (1.7% every day) or occasionally (2.5% on some days).

<table>
<thead>
<tr>
<th>Use</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Tried</td>
<td>79.7%</td>
</tr>
<tr>
<td>Tried, Don't Currently Use</td>
<td>16.1%</td>
</tr>
<tr>
<td>Use on Some Days</td>
<td>2.5%</td>
</tr>
<tr>
<td>Use Every Day</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 163]
Notes: Asked of all respondents.
• Similar to state and national findings.
• Prevalence is lowest in Montgomery County.

Current Use Vaping Products
(Every Day or on Some Days)

Electronic cigarette/other vaping product use is statistically more prevalent among:

• Younger adults.
• Higher-income residents.
• White residents (the prevalence among Hispanics is not statistically significant).

Currently Use Vaping Products
(Total Area, 2018)
Access to Health Services
Health Insurance Coverage

Type of Healthcare Coverage

Just under half (49.4%) of Total Area adults age 18 to 64 report having healthcare coverage through private insurance. Another 37.5% report coverage through a government-sponsored program (e.g., Medicaid, Medicare, military benefits).

**Healthcare Insurance Coverage**

(Among Adults Age 18-64; Total Area, 2018)

- **Insured, Employer-Based**: 41.1%
- **Insured, Self-Purchase**: 7.9%
- **Insured, Unknown Type**: 0.4%
- **Medicaid**: 11.4%
- **Medicare**: 15.9%
- **VA/Military**: 2.3%
- **Medicaid & Medicare**: 1.0%
- **No Insurance/Self-Pay**: 13.0%
- **Other Gov’t Coverage**: 1.0%

**Supplemental Coverage**

Among adults age 65 and older, three-quarters (75.5%) have supplemental health insurance in addition to their Medicare coverage.

- Least common in Montgomery and Richmond counties.
- TREND: Represents a significant increase over 2011 findings (similar to other years).
Employer-Based Health Insurance

Among Comparative Area respondents with healthcare coverage through their own or someone else’s employer or union, 46.2% indicate that they alone have coverage, while 15.0% have coverage for themselves and a spouse, and 38.8% have coverage for their entire family.

- TREND: This distribution has not significantly changed over time

Family Members Covered by Employer-Based Insurance

(Among Respondents With Insurance Through Their Own or Someone Else’s Employer/Union; Comparative Area)
Lack of Health Insurance Coverage

Among adults age 18 to 64, 13.0% 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).
- Lack of coverage is highest in Richmond County.
- TREND: Significantly lower than findings from 2007, though differences over other years are not statistically significant.

Lack of Healthcare Insurance Coverage

(Among Adults Age 18-64)

Healthy People 2020 Target = 0.0% (Universal Coverage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>8.1%</td>
<td>10.2%</td>
<td>17.0%</td>
<td>11.2%</td>
<td>22.5%</td>
<td>13.0%</td>
<td>18.8%</td>
<td>13.7%</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.8%</td>
<td>18.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.3%</td>
<td>14.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.0%</td>
<td>14.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.0%</td>
<td>14.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14.0%</td>
<td>14.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 169]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes:
- Asked of all respondents under the age of 65.
- Trending. Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

Note the following:

- The uninsured prevalence among Hispanic adults is 28.8%, which is more than twice that of other racial/ethnic groups.
- Residents living at lower incomes also report a higher prevalence.
Recent Lack of Coverage

Among all Total Area adults, 18.0% report that they have been without healthcare coverage at some point in the past year (including the 13.0% who are currently uninsured).

- Insurance instability is most common in Montgomery and Richmond counties.
- TREND: Virtually unchanged since 2015.

Went Without Healthcare Insurance Coverage
At Some Point in the Past Year

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 169]
Notes:
- Asked of all respondents under the age of 65.
- 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

Comparative Area

<table>
<thead>
<tr>
<th>County</th>
<th>2015</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>13.5%</td>
<td>18.3%</td>
</tr>
<tr>
<td>Lee County</td>
<td>27.8%</td>
<td>30.2%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>10.7%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Moore County</td>
<td>18.0%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Richmond County</td>
<td>18.0%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Total Area</td>
<td>18.0%</td>
<td>18.0%</td>
</tr>
</tbody>
</table>

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc.  [Item 331]
Notes:
- Reflects all respondents.
- Data prior to 2015 are not comparable for this indicator.
- Trending: Lee County is excluded from the Comparative Area data.
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)

Difficulties Accessing Services

Just over one-third (34.7%) of Total Area adults report some type of difficulty or delay in obtaining healthcare services in the past year.

- More favorable than national findings.
- Least favorable in Hoke and Richmond counties.

Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 171]
2017 PRC National Health Survey, Professional Research Consultants, Inc.

Notes: Asked of all respondents.

Note that the following demographic groups more often report difficulties accessing healthcare services:

- Women.
- Adults under age 65.
- Lower-income residents.
- Black residents.
Experienced Difficulties or Delays of Some Kind in Receiving Needed Healthcare in the Past Year (Total Area, 2018)

| Source: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 171] |
| Notes: Asked of all respondents. |
| Represents the percentage of respondents experiencing one or more barriers to accessing healthcare in the past 12 months. |
| 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level. |

To better understand healthcare access barriers, survey participants were asked whether any of seven types of barriers to access prevented them from seeing a physician or obtaining a needed prescription in the past year. Again, these percentages reflect the total population, regardless of whether medical care was needed or sought.

Barriers to Healthcare Access

Of the tested barriers, cost of prescriptions impacted the greatest share of Total Area adults (15.0% say that cost prevented them from obtaining a prescription in the past year).

- The proportion of impacted Total Area adults is statistically comparable to or better than that found nationwide for each of the tested barriers.

Barriers to Access Have Prevented Medical Care in the Past Year

| Source: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 7-13] |
| Notes: Asked of all respondents. |

<table>
<thead>
<tr>
<th>Total Area</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost (Prescriptions)</td>
<td>15.0%</td>
</tr>
<tr>
<td>Cost (Doctor Visit)</td>
<td>12.6%</td>
</tr>
<tr>
<td>Getting a Dr Appointment</td>
<td>12.4%</td>
</tr>
<tr>
<td>Inconvenient Office Hours</td>
<td>9.6%</td>
</tr>
<tr>
<td>Finding a Doctor</td>
<td>8.3%</td>
</tr>
<tr>
<td>Lack of Transportation</td>
<td>7.4%</td>
</tr>
<tr>
<td>Language/Culture</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
Accessing Healthcare for Children

A total of 2.3% of parents say there was a time in the past year when they needed medical care for their child, but were unable to get it.

- Favorably lower than what is reported nationwide.
- Reported access difficulties are notably higher in Moore County.
- Highest among parents of girls (similar by age group).

Parents experiencing difficulties primarily cited **transportation, long waits for appointments, and lack of staffing**.

**Had Trouble Obtaining Medical Care for Child in the Past Year**

(Among Parents of Children 0-17)

Parents with trouble obtaining medical care for their child mainly reported barriers due to transportation, long waits for an appointment, and lack of staffing.

<table>
<thead>
<tr>
<th>Boys</th>
<th>Girls</th>
<th>Age 0-4</th>
<th>Age 5-12</th>
<th>Age 13-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7%</td>
<td>4.5%</td>
<td>2.1%</td>
<td>2.7%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Items 118-119]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
- Asked of all respondents with children 0 to 17 in the household.
- Note that the sample for Montgomery County is not large enough to be shown here.
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).

Access to Primary Care

In the Total Area in 2014, there were 165 primary care physicians, translating to a rate of 59.5 primary care physicians per 100,000 population.

- Well below what is found statewide and nationally.
- Access is lowest in Hoke and Montgomery counties.

Access to Primary Care
(Number of Primary Care Physicians per 100,000 Population, 2014)

TREND: Access to primary care (in terms of the rate of primary care physicians to population) has increased slightly over the past decade in the Total Area, though remains under state and national rates.
**Trends in Access to Primary Care**
(Number of Primary Care Physicians per 100,000 Population)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Area</th>
<th>NC</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>49.5</td>
<td></td>
<td>50.7</td>
</tr>
<tr>
<td>2005</td>
<td>48.3</td>
<td></td>
<td>49.5</td>
</tr>
<tr>
<td>2006</td>
<td>49.2</td>
<td></td>
<td>49.9</td>
</tr>
<tr>
<td>2007</td>
<td>51.0</td>
<td></td>
<td>51.3</td>
</tr>
<tr>
<td>2008</td>
<td>52.7</td>
<td></td>
<td>52.4</td>
</tr>
<tr>
<td>2009</td>
<td>55.2</td>
<td></td>
<td>55.2</td>
</tr>
<tr>
<td>2010</td>
<td>57.8</td>
<td></td>
<td>58.0</td>
</tr>
<tr>
<td>2011</td>
<td>59.5</td>
<td></td>
<td>59.8</td>
</tr>
<tr>
<td>2012</td>
<td>59.5</td>
<td></td>
<td>59.6</td>
</tr>
<tr>
<td>2013</td>
<td>59.5</td>
<td></td>
<td>59.6</td>
</tr>
<tr>
<td>2014</td>
<td>59.5</td>
<td></td>
<td>59.5</td>
</tr>
</tbody>
</table>


Notes:
- This indicator is relevant because a shortage of health professionals contributes to access and health status issues.
- These figures represent all primary care physicians practicing patient care, including hospital residents. In counties with teaching hospitals, this figure may differ from the rate reported in the previous chart.

---

**Perceived Importance of Preventive Medical Care**

The majority (85.1%) of survey respondents consider preventive routine medical care to be “very important.”

- Another 14.0% gave “somewhat important” ratings, while 0.9% said it is “not important.”

---

**Perceived Importance of Preventive Routine Medical Care**
(Total Area, 2018)

- **Very Important**: 85.1%
- **Somewhat Important**: 14.0%
- **Not At All Important**: 0.9%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 304]

Notes:
- Asked of all respondents.
• “Very important” ratings are highest in Lee County.

• TREND: Over time, ratings of importance have shown no clear trend, with the current proportion being significantly higher than first measured in 2007, though decreasing since 2011.

**Preventive Routine Medical Care is “Very Important”**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>86.1%</td>
<td>94.6%</td>
<td>84.4%</td>
<td>87.1%</td>
<td>81.6%</td>
<td>85.1%</td>
</tr>
<tr>
<td>2011</td>
<td>80.3%</td>
<td>93.0%</td>
<td>85.7%</td>
<td>85.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>82.1%</td>
<td>94.3%</td>
<td>85.4%</td>
<td>85.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>87.8%</td>
<td>90.9%</td>
<td>86.2%</td>
<td>87.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 304]

Notes: • Asked of all respondents.

Those most likely to consider preventive routine medical care as “very important” include:

- Women.
- Adults age 40-64.
- Those under 100% or over 200% of poverty.
- Black or “Other” race respondents.

**Preventive Routine Medical Care is “Very Important”**

(Total Area, 2018)

<table>
<thead>
<tr>
<th>Group</th>
<th>2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 304]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>82.1%</td>
</tr>
<tr>
<td>Women</td>
<td>87.8%</td>
</tr>
<tr>
<td>18 to 39</td>
<td>81.4%</td>
</tr>
<tr>
<td>40 to 64</td>
<td>86.2%</td>
</tr>
<tr>
<td>65+</td>
<td>86.9%</td>
</tr>
<tr>
<td>Very Low Income</td>
<td>79.1%</td>
</tr>
<tr>
<td>Low Income</td>
<td>87.5%</td>
</tr>
<tr>
<td>Mid/High Income</td>
<td>82.5%</td>
</tr>
<tr>
<td>White</td>
<td>90.9%</td>
</tr>
<tr>
<td>Black</td>
<td>85.4%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>94.3%</td>
</tr>
<tr>
<td>Other</td>
<td>85.1%</td>
</tr>
<tr>
<td>Total Area</td>
<td>85.1%</td>
</tr>
</tbody>
</table>

Sources: • 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 304]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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

A total of 93.5% of Total Area adults 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 tests or a regular checkup.

- Residents in Richmond County are least likely to have a regular source of ongoing care.
- TREND: Marks a statistically significant increase since 1999.

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoke County</td>
<td>92.3%</td>
<td>94.1%</td>
<td>97.3%</td>
<td>94.1%</td>
<td>90.3%</td>
<td>93.5%</td>
</tr>
<tr>
<td>Lee County</td>
<td>90.7%</td>
<td>91.1%</td>
<td>90.7%</td>
<td>92.4%</td>
<td>90.0%</td>
<td>93.3%</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>89.6%</td>
<td>91.1%</td>
<td>94.1%</td>
<td>97.3%</td>
<td>94.1%</td>
<td>90.3%</td>
</tr>
<tr>
<td>Moore County</td>
<td>92.3%</td>
<td>94.1%</td>
<td>97.3%</td>
<td>94.1%</td>
<td>90.3%</td>
<td>93.5%</td>
</tr>
<tr>
<td>Richmond County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparative Area**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>89.6%</td>
<td>91.1%</td>
<td>90.7%</td>
<td>92.4%</td>
<td>90.0%</td>
<td>93.3%</td>
</tr>
</tbody>
</table>

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 305]

**Notes:**
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.

When viewed by demographic characteristics, the following population segments are less likely to have a regular source for routine care:

- Men.
- Adults under age 65 (correlation with age).
- Very low-income adults (correlation with income).
- Hispanic residents.
Utilization of Primary Care Services

Adults
Eight in 10 Total Area adults (83.0%) visited a physician for a routine checkup in the past year.

- More favorable than state or US findings.
- Most favorable in Lee County.

Have Visited a Physician for a Checkup in the Past Year
• Adults under age 40 are less likely to have received routine care in the past year (note the strong correlation with age).
• Lower-income adults and Hispanic residents are also less likely to have received recent routine care.

Have Visited a Physician for a Checkup in the Past Year
(Total Area, 2018)

<table>
<thead>
<tr>
<th>Type of Facility Used for Most Recent Visit</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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Visited a Physician for a Checkup in the Past Year (Total Area, 2018)</td>
<td>83.0%</td>
<td>83.1%</td>
<td>75.2%</td>
<td>83.6%</td>
<td>94.9%</td>
<td>79.8%</td>
<td>79.0%</td>
<td>84.9%</td>
<td>82.2%</td>
<td>89.1%</td>
<td>71.8%</td>
<td>88.0%</td>
<td>83.0%</td>
</tr>
</tbody>
</table>

Sources: 2018 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

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

• Another 6.6% visited a hospital, 5.6% used a company clinic, and 5.1% used an emergency room or urgent care clinic.

Of these respondents with recent routine healthcare, 89.7% report that this facility is where they would normally go for healthcare.
**Type of Facility Used for Most Recent Routine Healthcare (Total Area, 2018)**

- Dr’s Office/Private Clinic: 71.1%
- Hospital: 6.6%
- Company Clinic: 5.6%
- ER/UCC (Not in Hospital): 5.1%
- Don’t Know/No Response: 3.2%
- Other (Each <3%): 8.4%

89.7% of respondents say this is where they normally would go for healthcare.

**Interest in Case Management Services**

Six in 10 survey respondents (60.4%) would utilize case management services, if these were available to them.

Another 4.3% currently use these services, and 8.2% would maybe be interested.

- More than one-quarter (27.0%) would not be interested in these services.

**Would Use Case Management Services if Available (Total Area, 2018)**

- Yes: 60.4%
- No: 27.0%
- Maybe: 8.2%
- Currently Use: 4.3%
Interest in Telehealth

A majority of respondents indicated that they would be likely to use telehealth visits if offered (28.8% “very likely” and 35.9% “somewhat likely”).

Probability of Using Telehealth Visits if Offered
(Total Area, 2018)

- Very Likely 28.8%
- Somewhat Likely 35.9%
- Not At All Likely 35.3%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 309]
Notes: Asked of all respondents.

- Interest in telehealth does not significantly differ by county.
- TREND: Interest is far below findings from previous years.

“Very/Somewhat” Likely to Use Telehealth Services if Offered

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 309]
Notes: Asked of all respondents.
Trending: Lee County is excluded from the Comparative Area data.
Adults age 65+ and Hispanic residents are less likely to report interest in telehealth services.

“Very/Somewhat” Likely to Use Telehealth Services if Offered
(Total Area, 2018)

Personal Access to the Internet
A total of 88.3% of respondents report having access to the Internet for personal use, either at home, work, or school.

Lowest in Lee County.

TREND: Marks a steady increase in personal internet access since first measured in 2011.
When viewed by demographic characteristics, the following are more likely to have access to the internet for personal use:

- Men.
- Younger adults (strong negative correlation with age).
- Residents with higher incomes (strong positive correlation with age).
- White or Hispanic residents.

### Have Access to the Internet for Personal Use
(Total Area, 2018)

<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>Hispanic</th>
<th>Other</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>90.3%</td>
<td>86.5%</td>
<td>95.7%</td>
<td>90.6%</td>
<td>71.9%</td>
<td>73.1%</td>
<td>85.3%</td>
<td>96.3%</td>
<td>91.5%</td>
<td>78.6%</td>
<td>91.4%</td>
<td>77.6%</td>
<td>88.3%</td>
</tr>
</tbody>
</table>

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 333]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.

### Smartphones

Eight in 10 Total Area residents (82.5%) have a smartphone or phone that can download apps, access email, or use the internet.

- No significant differences by county.
- TREND: A notable increase in smartphone ownership since first measured in 2015.
Most common among younger adults, higher-income residents, and Hispanic residents.
Emergency Room Utilization

A total of 14.9% of Total Area adults have gone to a hospital emergency room more than once in the past year about their own health.

- Much higher than national findings.
- Notably high in Hoke and Richmond counties.

Of those using a hospital ER, 60.7% say this was due to an emergency or life-threatening situation, while 30.3% indicated that the visit was during after-hours or on the weekend. A total of 3.2% cited a doctor’s recommendation.

Have Used a Hospital Emergency Room More Than Once in the Past Year

These population segments are more likely to have used an ER for their medical care more than once in the past year:

- Young adults (negative correlation with age).
- Very low-income residents (strong negative correlation with income).
- Black residents.
Have Used a Hospital Emergency Room More Than Once in the Past Year
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 22]

Notes: Asked of all respondents.
Hispanics can be of any race. Other race categories are non-Hispanic categorizations (e.g., "White" reflects non-Hispanic White respondents).
Income categories reflect respondent's household income as a ratio to the federal poverty level (FPL) for their household size. "Very Low Income" includes households with incomes below 100% of the federal poverty level; "Low Income" includes households with incomes at 100-199% of the federal poverty level; "Mid/High Income" includes households with incomes at 200% or more of the federal poverty level.
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.

Dental Insurance

More than six in 10 Total Area adults (61.9%) have dental insurance that covers all or part of their dental care costs.

- Similar to the national finding.
- Highest in Hoke County.
These adults are less likely to be covered by dental insurance:

- Older adults.
- Lower-income adults.
- White or Hispanic residents.

Have Insurance Coverage That Pays All or Part of Dental Care Costs
(Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 21]

Notes: 2017 PRC National Health Survey, Professional Research Consultants, Inc.

- 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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% of the federal poverty level; “Mid/High Income” includes households with incomes at 200% or more of the federal poverty level.
Dental Care

Adults

Two-thirds (66.8%) of Total Area adults have visited a dentist or dental clinic (for any reason) in the past year.

- More favorable than statewide or national findings.
- Satisfies the Healthy People 2020 target (49.0% or higher).
- Least favorable in Richmond County.
- TREND: Statistically unchanged since 1999.

Note the following:

- Persons living in the higher income categories report much higher utilization of oral health services (very low-income adults fail to satisfy the Healthy People 2020 target).
- Black residents are least likely to report recent dental care when compared against other racial/ethnic groups.

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.
- Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 and 2007 data also included 4 ZIP Codes in Robeson County.
Have Visited a Dentist or Dental Clinic Within the Past Year (Total Area, 2018)
Healthy People 2020 Target = 49.0% or Higher

Sources:
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 20]

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 with incomes below 100% of the federal poverty level; “Low Income” includes households with incomes at 100-199% 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 63.6% of Total Area residents had an eye exam in the past two years during which their pupils were dilated.

- Above national findings.
- Lowest in Richmond County.
- TREND: Represents a steady decrease over time.

**Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hoke County</th>
<th>Lee 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>61.4%</td>
<td>64.5%</td>
<td>72.9%</td>
<td>65.1%</td>
<td>55.6%</td>
<td>63.6%</td>
<td>55.3%</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparative Area**

- 67.7% in 1999
- 66.3% in 2003
- 63.1% in 2015
- 63.2% in 2018

**Sources:**
- 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 19]
- 2017 PRC National Health Survey, Professional Research Consultants, Inc.

**Notes:**
-Asked of all respondents.
- Trending: Lee County is excluded from the Comparative Area data; note that 2003 data also included 4 ZIP Codes in Robeson County.

Recent vision care in the Total Area is less often reported among:

- Men.
- Younger adults (strong correlation with age).
- Residents with lower incomes.
- Hispanic residents.
Had an Eye Exam in the Past Two Years During Which the Pupils Were Dilated (Total Area, 2018)

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 19]

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).
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[Graph showing the percentage of men and women had an eye exam in the past two years by age group and income level]
Health Education
Health Information Sources

Family physicians (42.3%) and the internet (22.2%) are residents’ primary sources of healthcare information.

Other sources mentioned include insurance (6.5%), hospital publications (5.8%), employers (4.8%), and friends and relatives (4.3%).

- Just 2.4% of survey respondents say that they do not receive any healthcare information.

### Primary Source of Healthcare Information
(Total Area, 2018)

- Family Doctor 42.3%
- Internet 22.2%
- Insurance 6.5%
- Hospital Publications 5.8%
- Employer 4.8%
- Friends/Relatives 4.3%
- Don't Know/No Response 4.0%
- Don't Receive Any 2.4%
- Other (Each <2%) 7.7%

Sources: 2018 PRC Community Health Survey, Professional Research Consultants, Inc. [Item 332]
Notes: Asked of all respondents.