



## **Novant Health Rowan Medical Center**

**Community Health Needs Assessment**

**Rowan County, North Carolina**

**2016-2018**

**Approved by the Novant Health Rowan Medical Center Board of Trustees on June 27, 2016**

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## **I. Introduction**

Novant Health Rowan Medical Center, in partnership with Rowan County Health Department (RCHD) conducted a community health needs assessment in 2015 to identify the most pressing health needs in our community. Novant Health Rowan Medical Center will enhance the community's health by offering health and wellness programming, clinical services and financial support to meet health needs identified.

### ***a. Organization Overview***

Novant Health Rowan Medical Center is an integral part of the Novant Health system (collectively known as "Novant Health"). Novant Health is a non-profit integrated health care system of 14 medical centers and a medical group with over 500 clinic locations. Other facilities and programs include outpatient surgery and diagnostic centers, charitable foundations, rehabilitation programs, and community health outreach programs. Novant Health and its affiliates serve their communities with programs including health education, home health care, prenatal clinics, community clinics and immunization services. Novant Health's over 25,000 employees and physician partners care for patients and communities in North Carolina, Virginia, South Carolina and Georgia.

### ***Mission***

Novant Health exists to improve the health of our communities, one person at a time.

Our employees and physician partners strive every day to bring our mission, vision and values to life. We demonstrate this commitment to our patients in many different ways. Our organization:

- Maintains an active community health outreach program.
- Demonstrates superior outcomes for many health conditions as indicated by our state and national quality scores.
- Creates innovative programs that address important health issues, with many of our programs and services being recognized nationally.
- Believes in its role as a good corporate citizen, working with community agencies and organizations to make our communities better places to live and work.

**Novant Health Rowan Medical Center (NHRMC)** is a 268-bed tertiary care hospital, providing a full continuum of services, including emergency, maternity care, surgery, diagnostics, rehabilitation, and other specialty care such as hospice, psychiatric and chemical dependency.

**b. Our Community**

Primary and Secondary Service Areas

The Primary Service Area for Novant Health Rowan Medical Center is defined by the zip codes that represent 75% to 85% of the hospital’s in-patient population as outlined below:

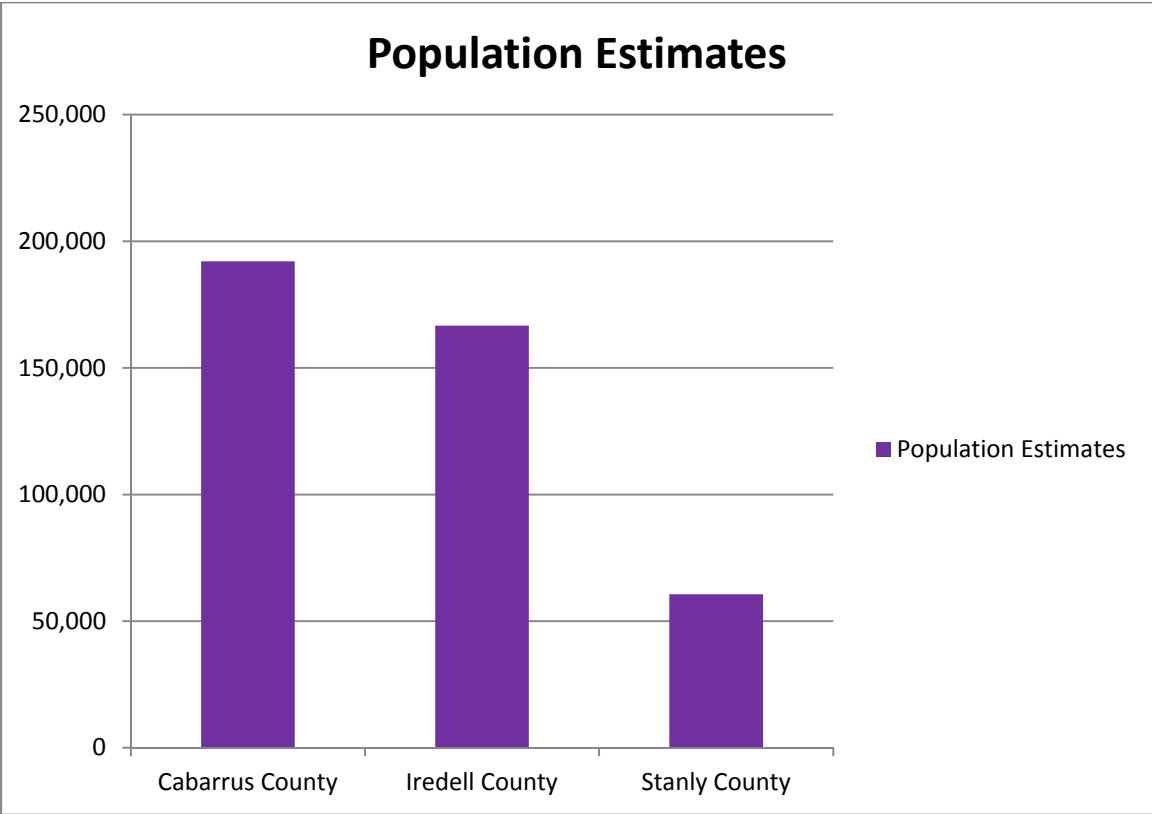
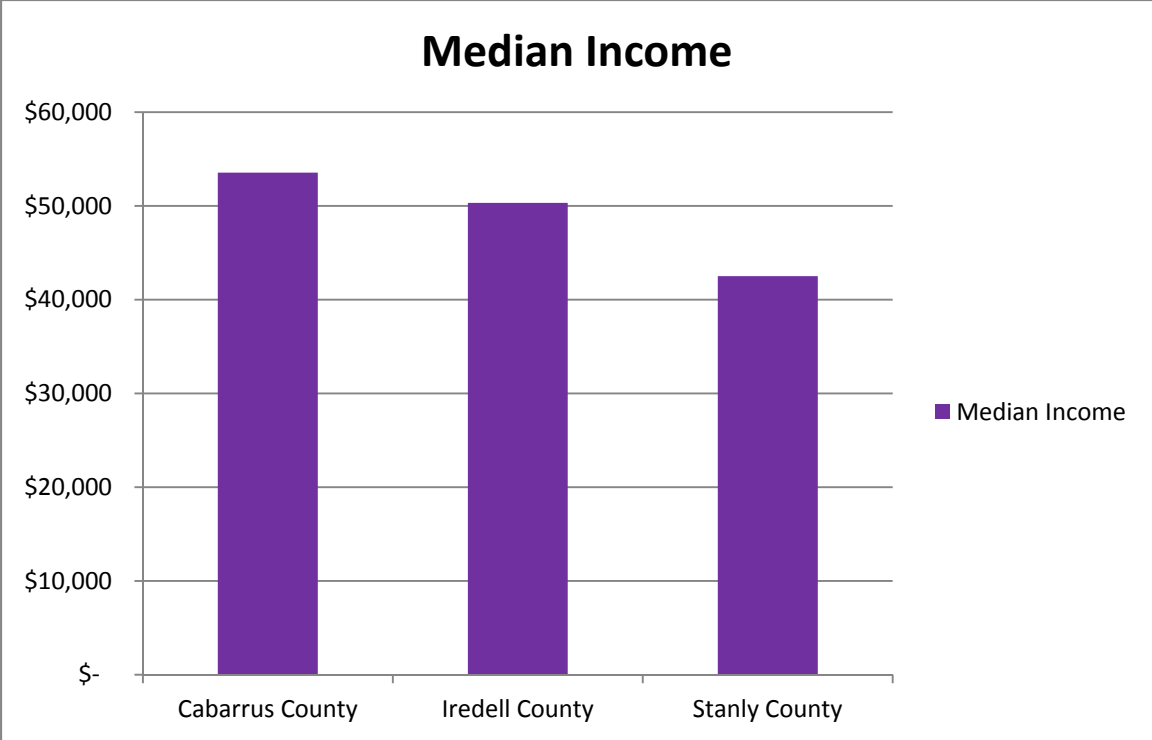
Zip Code	City	County
27013	Cleveland	Rowan
27054	Woodleaf	Rowan
28023	China Grove	Rowan
28039	East Spencer	Rowan
28041	Faith	Rowan
28071	Gold Hill	Rowan
28072	Granite Quarry	Rowan
28088	Landis	Rowan
28125	Mount Ulla	Rowan
28138	Rockwell	Rowan
28144	Salisbury	Rowan
28145	Salisbury	Rowan
28146	Salisbury	Rowan
28147	Salisbury	Rowan
28159	Spencer	Rowan

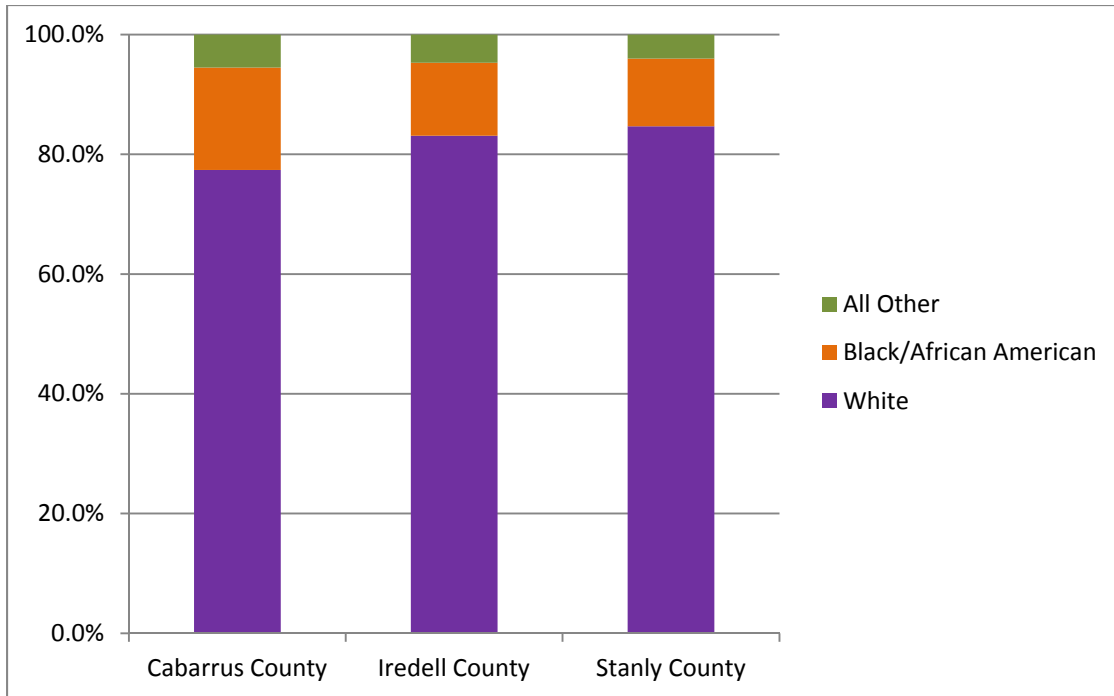
Rowan County, NHRMC’s primary service area and defined community, includes the county seat of Salisbury. Based on 2014 estimates<sup>1</sup>, Rowan County has a population of 138,630 residents. Estimates indicate that Rowan County’s population grew 0.1% since the 2010 US Census when there were an estimated 138,442 county residents. The County covers an 511.37 square mile area, with an average of 270.7 persons per square mile.

The Primary Service Area includes the Cities of Cleveland, Woodleaf, China Grove, East Spencer, Faith, Gold Hill, Granite Quarry, Landis, Mount Ulla, Rockwell, Salisbury and Spencer, which are all located in Rowan County. The Secondary Service Area for Novant Health Rowan Medical Center covers a three county radius, including: Iredell, Cabarrus, and Stanly Counties, North Carolina. According to the 2014 U.S. Census estimates, the aforementioned counties include the following demographic profiles:

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<sup>1</sup> Us Census Bureau. State and County QuickFacts. <http://quickfacts.census.gov/qfd/states/37/37159.html>





**Population**

Rowan County is more urban in nature, with 61.2% <sup>2</sup>of the population living in urban areas and 38.8% of the population living in rural areas. The county is located between the State’s largest city, Charlotte, and its capital, Raleigh. Demographic data for Rowan County is outlined below:

**Rowan County Population By Race & Ethnicity (2014)**

	Rowan County	North Carolina
Population Estimate	138,630	9,943,964
Persons Under 5 Years, percent 2014	5.6%	6.1%
Persons Under 18 Years, percent 2014	22.8%	23.0%
Person 65 Years & Over, percent 2014	16.3%	14.7%
Female Persons, percent 2014	50.7%	51.3%
White Alone, percent 2014	80.1%	71.5%
Black/African-American Alone, percent 2014	16.6%	22.1%
American Indian & Alaska Native Alone, percent 2014	0.6%	1.6%
Asian Alone, percent 2014	1.1%	2.7%
Native Hawaiian & Other Pacific Islander Alone, percent 2014	0.1%	0.1%
Two or More Races, percent 2014	1.5%	2.1%
Hispanic or Latino, percent 2014	8.2%	9.0%

Source: U.S. Census Bureau (2014).

<sup>2</sup>NC Economic Data and Site Information, 2015, <http://accessnc.commerce.state.nc.us/docs/countyProfile/NC/37159.pdf>

Children and adolescents make up just under one-third (28.4%) of the population in Rowan County, while seniors make up 16.3% of the population. Non-white minorities currently make up 28.1 % of the racial demographic in Rowan County.

Median Household Income		Population Educational Attainment (25 years and over)		Poverty Rate based on Educational Attainment (25+ yrs old)	
Rowan County	\$41,495	HS diploma/GED or higher	32.7%	< HS diploma/GED	30.6%
				HS diploma/GED	15.1%
North Carolina	\$46,596	Bachelor's degree or higher	11.9%	Some college or associate's degree	11.8%
				Bachelor's degree or higher	4.8%

Source: U.S. Census Bureau (2015).

Rowan County residents earn a median income that is slightly lower than the North Carolina state average. According to the U.S. Census American Fact Finder, less than a tenth of the population (11.9%) of Rowan County residents aged 25+ have attained a bachelor's degree or higher<sup>3</sup>. A key indicator to evaluate economic condition of Rowan County is the poverty rate. The poverty rate for Rowan County residents aged 25+ based on educational attainment indicates that the higher educational attainment, the lower the rate of poverty for those educational groups.

## II. Assessment process

The following are excerpts and findings from the 2016 Rowan County Community Health Assessment.

To access the full report, please visit

<https://www.rowancountync.gov/GOVERNMENT/Departments/HealthDepartment.aspx>

### a) Collaborative community partners

Local Health Departments in North Carolina are required to conduct a comprehensive community health needs assessment to maintain local health department accreditation. The 2015 Rowan County Community Health Assessment (CHA) is a collaborative effort of Rowan Department of Public Health Novant Health Rowan Medical Center, the Healthy Rowan! Board, and numerous community agencies and organizations. As part of this assessment process, special attention was paid to the needs of the underserved. The process emphasized collaboration among community partners to improve the overall health of the community.

<sup>3</sup> U.S. Census Bureau. American FactFinder 2014.

<http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

The Healthy Rowan! Board served as the oversight/advisory group for the development of the Rowan County CHA. A CHA Work Group Team was developed to help facilitate the coordination of the CHA process. To ensure input from public health professionals, leaders of medically underserved communities, and persons with broad knowledge of the community, the CHA Work Team was comprised of a diverse group of community stakeholders.

The CHA was strengthened by the collaborative nature and engagement of the Advisory Committee (the Healthy Rowan! Board) and Work Group. The efforts of the CHA team and other community agencies and individuals were instrumental in ensuring diversity during the CHA process.

(See Appendix A for a complete list of agencies that were represented on the advisory and work groups. Please see the RDPH 2015 CHA Report at <https://www.rowancountync.gov/GOVERNMENT/Departments/HealthDepartment.aspx> for a listing of individual participant names).

### ***b) Solicitation***

We solicited input from persons who represent the broad interest of Rowan County, NC including Hispanics, persons living in poverty and those without a high school degree. To ensure that broad input from Rowan's diverse community was sought after, the CHA team and the CHA consultant surveyed the community through medical practices, the Department of Social Services, the Chamber of Commerce, the three community YMCA locations and Ruffy-Holmes Senior Center. 69% of the surveys were done on paper and 31% were done online. The survey respondent pool was racially and socioeconomically balanced in comparison to current Rowan County racial and socioeconomic demographic estimates.

### ***c) Data collection***

#### **Primary Data**

##### *The Community Health Opinion Survey*

In 2015, the Rowan County Health department developed a survey instrument using the template in the CHA Guidelines. Input for the survey was solicited from a variety of county leaders from community groups who are experts in public health, minority populations, health, health disparities, and social services. Survey questions were modified based on local programming provided by Healthy Rowan!, the Rowan County Health Department and Novant Health Rowan Medical Center and the final survey was approved by the CHA Advisory team. Surveys were created with input from community stakeholders and included questions on community issues, preventive care and health behaviors, mental health issues, environmental health issues, access to healthcare, emergency preparedness and various personal and household demographics.

Throughout the data collection process particular attention was given to identifying at-risk and vulnerable populations. Solicitation of the Public Surveys continued until a minimum of 300 was reached. The 2015 survey respondent pool can be generally characterized as predominately female (64% female; 26% male), racially and socioeconomically balanced in comparison to current Rowan County racial and socioeconomic demographic estimates. The CHA Team and its partners attempted to



get adequate representation for males; however participation from males still fell short of an adequate sample of the Rowan county population. Data was analyzed by the independent consultant. To avoid biased estimates, data analyses included a mathematical weight for probability of selection.

#### *Focus Groups and Key Informant Interviews*

For additional primary data for the 2015 CHA, focus groups and key informant interviews were conducted as the solicitation of public surveys began. The Key Informant and focus group participants included representatives of local government, Chamber, school system, law enforcement, emergency services, religious community, social services, medical community, business and non-profit. An assessment was made of group responses to all the questions addressed in the meeting. The focus group's data was based on multiple choice answers, and the percentage of responses for each question was provided in the public input of the CHA data.

#### **Secondary Data**

Along with the outlined primary data, secondary data was collected from other sources and reviewed. Health data was gathered and analyzed from the following sources:

- Sources provided/suggested in the CHA Guidelines
- Rowan County Health Department internal and external sources
- Novant Health Rowan Medical Center
- Community Care of Rowan

### **III. Identification and Prioritization of Health Needs**

#### **a) Identified Significant Health Needs**

From participant responses, several key health problems were identified based on highest rank in responses after analyzing and interpreting Rowan County's primary and secondary data. Overall findings included the following:

- Results from the Community Health Opinion Survey suggest that Rowan County residents are concerned about tobacco use/smoking, obesity/overweight, illegal drug use, prescription drug abuse, alcohol abuse, lack of physical activity, diabetes, teen pregnancy, mental illness and dental health.
- Results from key informant interviews suggest that key informants identified obesity, diabetes, tobacco use, drug/alcohol abuse, dental care, heart disease, mental health issues, respiratory problems and high cholesterol as top health problems.
- The top seven leading causes of death among Rowan County residents in 2014 include heart disease, diabetes, kidney disease, chronic liver disease and cirrhosis, stroke, cancer – all, and chronic lower respiratory disease.
- Regarding personal health, 88% of residents said they consider themselves to be generally healthy; but 30% said they have been diagnosed as obese/overweight, 27% have hypertension and 19% have high cholesterol.
- Regarding lifestyle habits, 81% said their life style habits are generally healthy; but 65% of Public Survey respondents said that inactivity/lack of physical activity is a problem. Key Informants felt

the life style of County citizens is not very healthy. When asked what kept people in the County from being healthy they had these responses:

- Lack of fitness activity – 78%
- Unhealthy Life Style – 71%
- Culture of bad health habits – 68%
- Poor nutrition – 65%
- Lack of knowledge/understanding about the benefits of a healthy life style – 48%
- Regarding tobacco use, this health problem was ranked number 1 in the Public Survey with 72% of the people saying it is a problem (major or somewhat). It was ranked number 3 by Key Informants – 73% said it is a problem.
- Regarding community issues, survey participants ranked issues related to violence very high in the community issues section. Gang activity (57%), Non-violent crime such as theft, robbery (56%), violent crime such as murder, assault, rape (54%), domestic violence (54%) and child abuse/neglect (50%) were ranked as major and/or somewhat non-health related problems in Rowan County.

#### **b) Prioritization**

Rowan County community members provided public input based on the statistical health information provided as part of the public survey. The identified health needs were ranked according to years of potential life lost and magnitude of these issues.

The weighted scores were used to identify the top ranking health issues with the following results:

- 1) Tobacco Use/Smoking
- 2) Obesity/Overweight
- 3) Illegal Drug Use
- 4) Abuse of Prescription Drugs
- 5) Alcoholism/Alcohol Abuse
- 6) Inactivity/Lack of Physical Activity
- 7) Diabetes
- 8) Teenage Pregnancy
- 9) Mental Illness
- 10) Dental Health

In addition, Key Informants also provided rankings of health problems based on the statistical health information provided as part of the Key Informant Interviews:

- 1) Obesity
- 2) Diabetes
- 3) Tobacco Use
- 4) Drug/Alcohol Abuse
- 5) Dental Care
- 6) High Blood Pressure/Hypertension
- 7) Heart Disease
- 8) Mental Health Issues
- 9) Breathing/Respiratory Problems
- 10) High Cholesterol

**Recommended Prioritized Health Outcomes**

Based on these prioritized health needs, health and wellness priority areas were identified through an analysis of health indicators identified through the CHA as part of a combined weighted analysis based on 2010 Census data, public input, local programming and history clarifying the degree of need and the obstacles that would hamper solutions. Below is a summary of those recommendations:

- *Obesity and related disease:* conditions including diabetes, kidney disease, hypertension/blood pressure, high cholesterol, heart disease, stroke, and joint replacement
- *Tobacco use and related disease:* conditions including COPD/Respiratory illness, cancer of the trachea, bronchus and lung, and an increase in likelihood or degree of diseases related to obesity
- *Mental Health and related issues:* conditions including alcoholism, illegal drug use, and prescription drug abuse.

**Facility prioritization**

In addition to the community rankings, Novant Health Rowan Medical Center reviewed the top five diagnosis codes for inpatient and outpatient hospital emergency room visits year-to-date January to July 2015.

Novant Health Rowan Medical Center Emergency Department  
Top 5 Diagnoses YTD Jan-July 2015

Inpatient		Outpatient	
Diagnosis	Volume	Diagnosis	Volume
Pneumonia, organism NOS	199	Urinary tract infection NOS	772
Urinary tract infection NOS	124	Chest pain NOS	534
Chest pain NEC	36	Chest pain NEC	496
Chest pain NOS	28	Acute uri NOS	451
Noninf gastroenterit NEC	28	Lumbago	383
Acute bronchitis	11	Headache	332

A review of the hospital emergency room visits indicated that many of the top inpatient diagnosis codes are correlated with the chronic diseases identified in the CHA. Upon analysis of the outpatient diagnosis codes, it was apparent that many of the patients seen had symptoms that could be related to a number of chronic conditions, including (but not limited to) heart disease and/or stroke, and chronic issues related to aging.

Upon a comprehensive review of the community’s recommended prioritized outcomes and NHRMC’s ED top 5 diagnosis codes, the Novant Health Rowan Medical Center leadership team and Board of Trustees evaluated this information based on the scope, severity, health disparities associated with the need, and the estimated feasibility and effectiveness of possible interventions. Through this thorough evaluation, the team agreed on the following three top significant health priorities for Novant Health Rowan Medical Center:

1. Obesity-related Chronic Disease
2. Cancer
3. Mental health

#### IV. Addressing needs

Novant Health Rowan Medical Center is committed to working to address each of the identified areas of need through resource allocation and support of the following programs:

Obesity-related Chronic Diseases

- Remarkable You community screenings (BP, BMI, A1C)
- Community health education addressing chronic disease prevention and wellness

Cancer

- Community health education addressing tobacco use and healthy lifestyle

Mental Health

- Community education on mental health and substance abuse prevention

In addition to the programs and services offered to the community through Novant Health Rowan Medical Center, there are several existing community assets available throughout the Rowan County community that have additional programs and resources tailored to meet all of the identified health needs. The following is a list of those existing community assets:

Health Needs	Local Community Resources Addressing Needs
<ul style="list-style-type: none"> <li>- <b><i>Access to care</i></b></li> <li>- <b><i>Chronic disease and diabetes</i></b></li> <li>- <b><i>Maternal and infant health</i></b></li> <li>- <b><i>Mental health</i></b></li> </ul>	<ul style="list-style-type: none"> <li>• The ARC of Rowan</li> <li>• Rowan Vocational Opportunities</li> <li>• Rowan County Health Department Family Health Services</li> <li>• Community Care Clinic of Rowan County, Inc.</li> <li>• Good Shepherd’s Clinic</li> <li>• Family Crisis Council</li> <li>• Cabarrus County Group Homes, Inc.</li> <li>• Timber Ridge Treatment Center</li> <li>• Ascend Psychological Services, PLLC</li> <li>• A Safe Place Counseling</li> <li>• Carolina Counseling and Consulting</li> <li>• Carter House of RHA Behavioral Health Services</li> <li>• Clinical &amp; Forensic Psychological Services, PC</li> </ul>

	<ul style="list-style-type: none"> <li>• Genesis A New Beginning</li> <li>• Hopebound Christian Counseling</li> <li>• Counseling Associates, PA</li> <li>• McCombs Counseling &amp; Consulting</li> <li>• Quality Care Developmental Services</li> <li>• Cardinal Innovations</li> <li>• The ARC of Rowan</li> <li>• NAMI Rowan</li> <li>• Gentiva Home Healthcare</li> <li>• Prospect Care Services</li> <li>• Advanced Home Care</li> <li>• Angels at Heart</li> <li>• Atlantic Coast Home Care Agency, Inc.</li> <li>• Bayada Home Health</li> <li>• Changing Hands Home Health</li> <li>• Comfort Keepers</li> <li>• Home Health Connection</li> <li>• Home Instead Senior Care</li> <li>• Kesler Home Care</li> <li>• Maxim Home Care</li> <li>• Peace Havens Home Care LLC</li> <li>• Personal Touch Home Care Team</li> <li>• Quality Care Developmental Services</li> <li>• Superior Home Care</li> <li>• Tender Hearted Home Care</li> </ul>
<p><b>Community resources addressing:</b></p> <ul style="list-style-type: none"> <li>- <i>Alcohol and Substance abuse</i></li> <li>- <i>Lifestyle factors such as lack of physical activity, overweight and obesity</i></li> <li>- <i>Smoking and tobacco use</i></li> <li>- <i>Social issues including Transportation, Poverty, Housing and Unemployment</i></li> </ul>	<ul style="list-style-type: none"> <li>• Alcohol Abuse Chemical Dependency Counseling Service, LLC</li> <li>• CHOICES Substance Abuse Treatment</li> <li>• Daymark Recovery Services</li> <li>• Alcoholics Anonymous – District 21</li> <li>• Dimensions Dance Arts</li> <li>• NCSU Cooperative Extension/Rowan Center</li> <li>• Rowan Helping Ministries</li> <li>• Grateful Heart</li> <li>• Main Street Mission</li> <li>• Rowan County Department of Social Services</li> <li>• The Forum- Health club</li> <li>• TOPS Chapter (Taking Off Pounds Sensibly)</li> <li>• Rowan Transit System <ul style="list-style-type: none"> <li>○ RITA (Rowan Individual Transportation</li> </ul> </li> </ul>

	<p style="text-align: center;">Assistance)</p> <ul style="list-style-type: none"> <li>○ Rowan Express</li> <li>● Transit Operations – Public transportation in City of Salisbury</li> <li>● Helping Hands Specialized Transport, Inc.</li> <li>● Latino Express of Rowan Inc.</li> <li>● Quality Transport</li> <li>● Secure Comfort and Transportation</li> <li>● Your Personal Wellness Center</li> <li>● YMCA of Rowan County</li> </ul>
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## V. Impact Evaluation of 2013-2015 Community Health Needs Assessment

Based on the previously reported health data from the 2013-2015 Community Health Needs Assessment, the Novant Health Rowan Board of Trustees did a collective review of community feedback and prioritization, and determined the top health priorities for Novant Health Rowan Medical Center as the following: **Diabetes, Obesity, Heart Disease, Cancer and Access to Care**

To address these priorities, Novant Health Rowan Medical Center committed to providing community education, screenings and support groups to address these needs, as well as youth-focused physical activity and nutrition programs. From 2013-2015, Novant Health Rowan Medical Center was successful in implementing selected outreach programs for each of the defined priority areas while meeting the goals established for each program. The major program goal that was set for each priority area was to increase the number of community members reached through screenings and health education. This goal was exceeded by almost double for the majority of each community outreach program. Specific objectives and measures achieved are described below:

- 1) Priority Area: Diabetes— Over 900 community members were reached through screenings that included cholesterol, glucose and A1C exams to measure one’s risk for diabetes. In addition, over 4,200 community members received health education specific to diabetes management and prevention. Screenings and educational classes were made available to community members onsite at NHFMC as well as in the community at community centers, senior centers, Churches, schools, and at local community events as requested.
- 2) Priority Area: Obesity – Over 500 community members were reached through Body Mass Index screenings to provide an assessment of overweight and obesity. In addition, over 10,000 community members were received health education specific to nutrition and weight management. Screenings and educational classes were offered throughout the community at various locations.
- 3) Priority Area: Heart Disease – Over 6,400 community members were screened for heart disease risk factors including screenings done in NHRMC’s community cardiac clinics and other community cardiac screenings. Such screenings included vascular screenings, heart risk assessments, lipid profiles and blood pressure screenings. In addition, over 3,900 community members received health education specific to preventing and managing heart disease. Screenings and educational classes were offered throughout the community at various locations.

- 4) Priority Area: Cancer – Over 200 community members received breast cancer screenings, and over 900 community members received cancer education on topics ranging from cancer prevention, healthy lifestyle and general wellness topics. Classes were offered to the community-at-large at various locations throughout the community.
- 5) Priority Area: Access to Care – NHRMC was successful in increasing the total number of congregational health promoters at local health ministries throughout Rowan County. In addition, over 5,300 community members received community nurse services through educational classes on topics including breastfeeding/lactation, women’s health, and nutrition and weight management.

**Appendix A: Advisory Committee Represented Agencies and CHA Work Team Agencies**

<b>CHA Advisory Team/ Be Healthy! Rowan Board</b>	
<b>Agency</b>	
	Rowan County Sheriff's Office
	Community Care of Southern Piedmont
	Smart Start Rowan
	Salisbury Police Dept.
	Rowan County EMS
	NC Cooperative Extension
	Workforce Investment Act Program
	Rufty-Holmes Senior Center
	Rowan Co. Department of Social Services
	Rowan-Salisbury Schools
	Rowan County Health Dept (RCHD)
	Smoke Free Rowan
	Cardinal Innovations
	United Way of Rowan County
	Families First - NC
	Youth Services Bureau
	Rowan-Cabarrus Community College
	Novant Health Rowan Medical Center
	Community Care of Rowan

**\*Also a member of the CHA Work Group**

<b>CHA Work Team</b>	
<b>Agency</b>	
	RCHD Health Education Specialist and Chair of Healthy Rowan!
	RCHD Intern
	RCHD Allied Health manager
	Novant Health Rowan Medical Center Community Engagement Manger
	Rowan County Health Director