



## **Novant Health Brunswick Medical Center**

**Community Health Needs Assessment**

**Brunswick County**

**2013-2015**

**Approved by the Novant Health Brunswick Medical Center Board of Directors on December 10, 2013**

Dear Community Resident:

It is our pleasure to share with you the 2013-2015 Novant Health Brunswick Medical Center Community Health Needs Assessment. On behalf of the Novant Health Brunswick Medical Center Board of Directors, leadership, physician partners, and staff, we hope that you will find this information useful in planning and responding to the needs of our community.

This report contains data which was reported by the Brunswick County Health Department. We sincerely thank the health department and our various community partners and governmental agencies for their contributions to this report.

Novant Health exists to improve the health of communities, one person at a time. Along with our staff, physician partners, and volunteers, we are united by a promise to deliver the most remarkable patient experience, in every dimension, every time.

Responding to the health needs of our communities, especially to the most vulnerable among us, is central to the mission of Novant Health and other not-for-profit health care organizations. We strongly believe in our role as a good corporate citizen, which involves working with community agencies and organizations to make our communities better places to live and work. Novant Health 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 including maintaining an active community health outreach program, demonstrating superior outcomes for many health conditions as indicated by our state and national quality scores, and creating innovative programs (many are recognized nationally) that address important health issues.

We believe that the data contained in this report will help us and our community partners in our planning and implementation strategies so that we can continue to effectively respond to the health needs of our community.

On behalf of Novant Health Brunswick Medical Center, thank you for taking the time to read this report. Again, we do hope that you will find this information useful in planning and responding to the needs of our community.

Sincerely,

Shelbourn Stevens, President  
Novant Health Brunswick Medical Center

Denise Mihal, Senior Vice President & COO  
Novant Health Greater Winston-Salem Market  
& Eastern Markets

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## I. Introduction

The Brunswick County Health Department in collaboration with Novant Health Brunswick Medical Center and other community partners established a community health assessment in 2011 to identify the most pressing health needs in our community. The 2011 community health assessment serves as the basis for Novant Health's Community Health Needs Assessment 2013 – 2015. Novant Health Brunswick Medical Center will use the data in the Community Health Needs Assessment to enhance the health of its community through health and wellness programming, clinical services and financial support.

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

Novant Health is the parent company of Novant Health Brunswick Medical Center and is a not-for-profit integrated health system consisting of 15 hospitals and a medical group consisting of over 1,000 physicians in over 350 clinic locations. In addition, Novant Health consists of numerous outpatient surgery centers, medical plazas, rehabilitation programs, diagnostic imaging centers and community health outreach programs. Novant's 25,000+ employees and physician partners care for patients and communities in North Carolina, Virginia, and South Carolina.

Novant Health 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. Many of our programs and services are 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.

By bringing together world-class technology and clinicians to provide quality care, Novant Health Brunswick Medical Center is committed to creating a healthcare experience that is simpler, more convenient and more affordable so patients can focus on getting better and staying healthy.

Novant Health Brunswick Medical Center was opened in 1977 as Brunswick Community Hospital, an acute care facility in the heart of Brunswick County. In 2006, Novant Health was selected by the Brunswick County Hospital Authority to provide healthcare services to counties in eastern North Carolina. In 2011, our new facility opened its doors to the community.

### Novant Health Brunswick Medical Center Services Include:

- Cardiac Rehabilitation
- Cardiology
- Cardiopulmonary

- Care Now
- Critical Care Units
- Diagnostic Cardiac Catheterization Services
- Emergency
- Surgery
- Laboratory
- Lithotripsy services
- Maternity
- MyChart
- Orthopedic
- Pharmacy
- Physical Therapy
- Pulmonary Rehabilitation
- Radiology
- Respiratory
- Speech Therapy

#### Awards & Recognition:

- TJC Top Performer – In 2013, Novant Health Brunswick Medical Center was named among the country’s top performing hospitals in The Joint Commission’s Annual Report on Quality and Safety. Brunswick Medical Center was one of only 1,099 hospitals nationwide to be named a Top Performer. Recognition is given in several specific categories, and Brunswick Medical Center received Top Performer recognition in five categories: surgical care, heart failure care, pneumonia, stroke and immunization.
- PRC President’s Award – In 2011, Novant Health and its organizations, including Brunswick Medical Center, received the President’s Award from Professional Research Consultants, a nationally known healthcare research company. Each year, PRC presents its top award to one organization or individual that has made an extraordinary contribution to healthcare. Novant Health was honored for its success in permeating a customer-focused culture of service excellence throughout the organization.
- National Leadership Award–In 2010, the national HealthLeaders Media organization recognized Novant Health and its organizations, including Novant Health Brunswick Medical Center, with the 2010 Top Leadership Teams in Healthcare Award for large hospitals and health systems.
- Most Reliable Hospital – In 2009, Brunswick Medical Center was designated a Most Reliable Hospital in Surgical Infection Prevention, and in 2008 recognized as Most Improved for Pneumonia Care and Surgical Infection Prevention by the North Carolina Center for Hospital Quality.

- VHA Excellence Awards – In 2013, Novant Health Brunswick Medical Center won an excellence award for reporting a 50 percent or greater reduction in rate of falls with injury in calendar year 2012 compared to calendar year 2011. Previously, in 2009, the medical center won an Excellence in MRSA Reduction Award from VHA for reducing hospital-acquired MRSA infections by more than 50 percent. VHA is a network of more than 1,300 not-for-profit hospitals.

### ***b. Our Community***

Brunswick County is located in the Southeastern most point in North Carolina bordered by New Hanover, Pender, Columbus, and Horry County, South Carolina. The temperate climate and beautiful beaches have opened it up to tremendous population growth over the past ten years. The county has a total of 1,050 square miles, of which 855 square miles is land and 195 square miles is water.

The majority of the population lives in rural, unincorporated areas. The majority of the citizens are white with a smaller than average African America population and an even smaller population of Latinos. The major population growth is attributed to a large number of older persons who have chosen to retire in Brunswick County.

Brunswick County is divided into municipalities and small-incorporated areas. There are 19 municipalities, more than any other county in North Carolina.

Municipalities include Bald Head Island, Belville, Boiling Spring Lakes, Bolivia, Calabash, Carolina Shores, Caswell Beach, Holden Beach, Leland, Navassa, Northwest, Oak Island, Ocean Isle Beach, Sandy Creek, Shallotte, Southport, St. James, Sunset Beach, Varnamtown.

Unincorporated Communities include Antioch, Ash, Batarota, Bell Swamp, Bishop, Biven, Bonaparte Landing, Boone's Neck, Bowensville, Brunswick Station, Camp Branch, Cedar Grove, Cedar Hill, Civietown, Clairmont, Clarendon, Coolvale, Doe Creek, Eastbrook, Easy Hill, Piney Grove, Supply, Sunset Harbor, Winnabow. The primary and secondary service areas for Novant Health Brunswick Medical Center are listed below:

Novant Health Brunswick Medical Center Primary Service Area

Zip	City	County	State
28420	Ash	Brunswick	NC
28422	Bolivia	Brunswick	NC
28452	Longwood	Brunswick	NC
28459	Shalotte	Brunswick	NC
28462	Supply	Brunswick	NC
28470	Shalotte	Brunswick	NC
28451	Leland	Brunswick	NC
28479	Winnabow	Brunswick	NC
28467	Calabash	Brunswick	NC
28468	Sunset Beach	Brunswick	NC
28469	Ocean Isle Beach	Brunswick	NC
28461	Southport	Brunswick	NC
28465	Oak Island	Brunswick	NC

Novant Health Brunswick Medical Center Secondary Service Area

Zip	City	County	State	Zip	City	County	State
28423	Bolton	Columbus	NC	29572	Myrtle Beach	Horry	SC
28424	Brunswick	Columbus	NC	29575	Myrtle Beach	Horry	SC
28430	Cerro Gordo	Columbus	NC	29576	Murrells Inlet	Horry	SC
28431	Chadbourn	Columbus	NC	29577	Myrtle Beach	Horry	SC
28432	Clarendon	Columbus	NC	29578	Myrtle Beach	Horry	SC
28436	Delco	Columbus	NC	29579	Myrtle Beach	Horry	SC
28438	Evergreen	Columbus	NC	29581	Nichols	Horry	SC
28439	Fair Bluff	Columbus	NC	29582	North Myrtle Beach	Horry	SC
28442	Hallsboro	Columbus	NC	29587	Myrtle Beach	Horry	SC
28450	Lake Waccamaw	Columbus	NC	29588	Myrtle Beach	Horry	SC
28455	Nakina	Columbus	NC	29597	North Myrtle Beach	Horry	SC
28456	Riegelwood	Columbus	NC	28401	Wilmington	New Hanover	NC
28463	Tabor City	Columbus	NC	28402	Wilmington	New Hanover	NC
28472	Whiteville	Columbus	NC	28403	Wilmington	New Hanover	NC
29511	Aynor	Horry	SC	28404	Wilmington	New Hanover	NC
29526	Conway	Horry	SC	28405	Wilmington	New Hanover	NC
29527	Conway	Horry	SC	28406	Wilmington	New Hanover	NC
29528	Conway	Horry	SC	28407	Wilmington	New Hanover	NC

29544	Galivants Ferry	Horry	SC	28408	Wilmington	New Hanover	NC
29545	Green Sea	Horry	SC	28409	Wilmington	New Hanover	NC
29566	Little River	Horry	SC	28410	Wilmington	New Hanover	NC
29568	Longs	Horry	SC	28411	Wilmington	New Hanover	NC
29569	Loris	Horry	SC	28412	Wilmington	New Hanover	NC
				28428	Carolina Beach	New Hanover	NC
				28429	Castle Hayne	New Hanover	NC
				28449	Kure Beach	New Hanover	NC
				28480	Wrightsville Beach	New Hanover	NC

### Demographics of the Community:

According to the 2010 US Census, Brunswick County has a population of 107,431 (34% urban, 66% rural). The population in 2000 was 73,143 resulting in a 46.9% increase to 2010.

In the summer, the population increases to approximately 180,000 with tourists and summer residents but these numbers are not used in this report even though it places a tremendous strain on all aspects of community life.

The percent of the population under five years of age is 5.4%, 18.8% of the population is below twenty years of age, and 21.4% is above age sixty-five years of age compared to 12.9% statewide. Females make up 51% of the total population and males make up 49%. The White population is 83% and African American is 11.4%. Latino population is 5.2%. Native American Indian is 0.7% and Asian is 0.5%.

### Quick Facts:

- High school graduation is 84% and persons with a bachelor's degree or more are 18.5%.
- Per capita income has risen from \$19,857 in 2007 to \$25,993.
- Median household income has risen from \$35,888 in 2007 to \$44,891.
- The unemployment rate has risen from 4.5 in 2007 to 10.4 equal to the state.
- The number of persons living in poverty is 14.6%. The elderly poverty rate is 8.1%. The child poverty rate is 22.6%.
- Whites have an 8.7% poverty rate while blacks have a 27.1% poverty rate compared to the state with whites having an 8.4% and blacks having 22.9%.



- The number of persons without medical insurance is 19.8%. The state average for persons without medical insurance is 19.7%.
- Brunswick County is considered to be a medically underserved area having 1,578 people per physician versus the 859 per physician state average and 631 nationally.
- The number of persons receiving Medicaid is 14,939 or 14.1%. Of those, 10.1% or 10,709 are white, 3% or 3,207 are black, and 1% or 1,023 are Latino. The highest age rates are 0-5 years old with 3,894 or 26%.
- The number of persons eligible for Medicaid receiving dental care is 45.7% under 21 years old and for those over 21 is 30.6%.

## II. Assessment Process and Methodology

### ***a. Collaborative Community Partners and Public Health Input***

Local health departments in North Carolina are required to conduct a comprehensive community health needs assessment to maintain local health department accreditation. The Novant Health Brunswick Medical Center Community Health Needs Assessment 2013 – 2015 is a joint effort with the Brunswick County Health Department, and is a project that involves the entire community. The Novant Health Brunswick Medical Center Community Health Needs Assessment 2013 – 2015 utilizes extensive, existing data from the Brunswick County Health Department Community Assessment 2011 as well as internally conducted research (including a review of Novant Health Brunswick Medical Center Emergency Department Utilization data – 2012).

### ***b. Process, Methods and Assessment Data***

The Novant Health Brunswick Medical Center Community Health Needs Assessment 2013-2015 primarily utilized extensive existing data from the Brunswick County Health Department Community Assessment 2011 and U.S. Census Bureau Data (2010). From a review of the collection of source data and community engagement, we believe that the development of the Novant Health Brunswick Medical Center Community Health Needs Assessment 2013-2015 is comprehensive enough in nature that any gaps that impact the facility's ability to assess the health needs of the community have been minimized.

Primary data (qualitative) was collected from the community through a randomized door-to-door survey, senior centers, Laundromats, an internet survey, community focus groups, and community leader surveys. Secondary data (quantitative) was gathered from state, regional, and local statistics from a variety of Sources. A Non Probability-based Convenience Sample Survey was developed as part of a regional process headed up by the Hospital Alliance. The NC-CATCH system identified Burke as Brunswick's peer county to compare similar statistics. Secondary Data Collection Sources:

## 2011 County Health Rankings – Robert Wood Johnston Foundation

- NC CATCH
- NC State Center for Health Statistics
- NC Division of Public Health - Epidemiology Branch
- NC Division of Medical Assistance (Medicaid)
- North Carolina Office of Minority Health
- Center for Disease Control (CDC)
- U.S. Census Bureau
- Brunswick County Office of Economic Development
- Brunswick County GIS
- Brunswick County Core Land Use Plan

A survey was administered of which a total of 2,088 were collected. The survey was developed on a regional basis in collaboration with the Coastal Carolina Health Alliance and member county health departments. The surveys were developed using the state template to ensure all required information was gathered.

Survey Monkey was used to collect data online. Paper copies were distributed to citizens that did not have computer access. Novant Health Brunswick Medical Center and Doshier Memorial Hospital distributed surveys via email and hard copy. The University of North Carolina at Wilmington nursing students distributed hard copies throughout the community. The Brunswick County Health Department distributed surveys online thru the county web page and emails as well as hard copies to clients.

The intent of this informal survey was to determine what the citizens think is the biggest health problem in Brunswick County. The survey also was used to find out what types of access to care issues were being felt by the community. A wide variety of health problems were reported, but only the most common are reported here. The top five responses were selected for each question:

Question 1: In your opinion, what do most people die from in your community?

1. Heart Disease; 2. Cancer; 3. Diabetes; 4. Stroke; 5. Motor Vehicle Accidents

Question 2: In your opinion, what is the biggest health issue of concern in your community?

1. Chronic Disease; 2. Obesity; 3. Drug and Alcohol Abuse; 4. Tobacco Use; 5. Asthma

Question 3: In your opinion, what do you think is the main reason that keeps people in your community from seeking medical treatment?

1. Lack of Insurance/ unable to pay; 2. lack of knowledge/understanding of need; 3. Fear  
4. Cultural Health Beliefs; 5. Transportation

Question 4: Which factor do you feel most affects the quality of the health care you or people in your community receive?

1. Economic; 2. Age; 3. Ability to read or write/education; 4. Language Barrier; 5. Not Important

Question 5: In your opinion, do you feel people in your community lack the funds for any of the following? 1. Health Insurance; 2. Medicine; 3. Utilities; 4. Food; 5. Transportation.

Question 6: How do you rate your own health?

1. Very Good Health; 2. Good; 3. Excellent; 4. Fair; 5. Poor

Question 7: What does your community need to improve the health of your family, friends, and neighbors?

1. Job opportunities; 2. Wellness Services; 3. Health Services; 4. Healthy Food Choices; 5. Transportation

Question 8: What health screenings or education/information services are needed in your community?

1. Cholesterol/BP/Glucose; 2. Cancer; 3. Substance Abuse; 4. Physical Activity; 5. Nutrition

Question 9: Where do you and your family get most of your health information?

1. Doctor/Health care Provider; 2. Internet; 3. Health Department; 4. Family and Friends  
5. Television

Question 10: Does your family have a basic emergency supply kit?

1. Yes

Question 11. What would be your main way of getting information from authorities in a large-scale disaster or emergency?

1. Television; 2. Radio; 3. Internet; 4. Text Message; 5. Neighbor

Question 12: If public authorities announced a mandatory evacuation from your neighborhood or community due to a large-scale disaster or emergency, would you evacuate?

1. Yes

Question 13: What would be the main reason you might not evacuate if asked to do so?

1. Concern leaving pets; 2. Traffic jams, hard to get out; 3. Concern about family safety  
4. Leaving property; 5. N/A would leave

The process and methods used to conduct the Novant Health Brunswick Medical Center Community Health Needs Assessment 2013 – 2015 also included a review of the Top 10 cases in the Novant Health Brunswick Medical Center Emergency Department for 2012:

DIAGNOSIS RELATED GROUP (DRG) 2012	CASES
Pneumonia, organism	181
Obstructive chronic bronchitis with (acute) exacerbation	134
Urinary tract infection	101
Septicemia	92
Atrial fibrillation	85
Cerebral artery occlusion, unspecified with cerebral infarction	74
Acute kidney failure	55
Acute on chronic systolic heart failure	52
Dehydration	50
Acute pancreatitis	48

Community Health Data that was used to compile the Novant Health Brunswick Medical Center Community Health Needs Assessment 2013-2015 is listed below:

Governmental Data:

- Brunswick County Community Assessment (2011)
- U.S. Census Bureau (2010)

Internally Conducted Research:

- Novant Health Brunswick Medical Center Emergency Department Utilization Data (2012)
- Novant Health Brunswick Medical Center Defined Primary Service & Secondary Service Areas (2012)

### III. Prioritized Health Needs

Various community groups and individuals were involved in this assessment of the health of Brunswick County. A focus group was held with selected stake holders. There were 14 participants: bankers, emergency room workers, school nurse, parks and recreation, police, rental, other business professionals, and retired professionals who engaged in a group discussion based on five questions relative to data presented.

Representative of Broad Interests of the Community:

Brunswick Community College School of Nurses	Brunswick County School System
Brunswick County Libraries	Brunswick Electric Members Corporation
Brunswick Transit System	Brunswick Realtors Association
Community Care Network of the Lower Cape Fear	Boiling Springs Lakes Food Pantry
Hope Harbor Home	Dosher Memorial Hospital
Martin Luther King Society	Lions Club of Southport
Minority Infant Mortality Task Force of Brunswick County	Mexican Grocers
New Hanover Regional Medical Center	NAACP of Brunswick County
New Hope Free Clinic	Novant Health Brunswick Medical Center
University of North Carolina (Wilmington)	United Way

Representative with Special Knowledge/Expertise in Public Health:

- Brunswick County Health Department
- Brunswick Community College School of Nurses
- Community Care Network of the Lower Cape Fear
- Dosher Memorial Hospital
- Minority Infant Mortality Task Force
- New Hanover Regional Medical Center
- New Hope Free Clinic
- Novant Health Brunswick Medical Center

Representatives or Leaders of Medically Underserved, Low-Income and Minority Populations and Populations with Chronic Disease Needs:

- New Hope Clinic is committed to serving the healthcare needs of the underserved in Brunswick County. New Hope Clinic delivers a full range of health-care services, including primary and specialty medical care, dental care, patient education, and prescription medications, at no cost to our patients. With the tireless commitment of our organizational partners, volunteer base, and staff, New Hope Clinic is able to provide an innovative and comprehensive solution for the large number of uninsured Brunswick County residents.
- Community Care of the Lower Cape Fear was launched in 2003. Community Care of Lower Cape Fear serves nearly 95,000 Medicaid and Health Choice (CHIP) enrollees, and select Medicare, Blue Cross Blue Shield of North Carolina and State Employees Health Plan enrollees. The Community Care of Lower Cape Fear geographic footprint spans Bladen, Brunswick, and Columbus, New Hanover, Onslow and Pender counties.

- Community Care of Lower Cape Fear works in partnership with 154 primary care practices, hospitals, health departments, departments of social services, and other agencies and organizations, including LMEs and SEAHEC, in our six-county network. These professionals work together to provide cooperative, coordinated care through the Medical Home model. This approach matches each patient with a primary care physician who leads a health care team that addresses the patient's health needs. Community Care of Lower Cape Fear's care managers provide services to enable patients to better manage their chronic health conditions. The goal of Community Care of Lower Cape Fear is to improve health outcomes and quality of life for our patients, while reducing care costs in the communities it serves. Community Care of Lower Cape Fear is one of 14 networks participating in the statewide healthcare partnership called Community Care of North Carolina. All 100 Counties in North Carolina are covered by a Community Care of North Carolina Network, with more than 4,500 primary care providers participating statewide.

Careful examination of the data listed for Brunswick County show the top indicators in each category are (not in order of priority):

- Heart disease
- Diabetes
- Stroke
- Obesity
- Tobacco use
- Cultural health beliefs
- Economic issues
- Lack of cholesterol / blood pressure screenings
- Teen pregnancy
- Lack of exercise
- Lack of fruits and vegetables in diet

From in-depth analysis of the data, Novant Health Brunswick Medical Center and its collaborative community partners have determined to focus on the following health priorities:

1. Obesity reduction efforts in the community especially schools
2. Diabetes education and support
3. Provide health screenings in the community including cholesterol, glucose, and blood pressure
4. Address minority health issues focusing on cancer, hypertension, and diabetes
5. Emphasis on reducing number of women who smoke while pregnant

The prioritized health needs of the community were collectively reviewed by the Novant Health Brunswick Medical Center Board of Directors. The Board evaluated each documented need and its intersection with the organization's vision, commitments, and key strengths. Subsequently, the team further prioritized the health needs agreeing upon the top three health priorities:

1. Chronic Disease & Disability Prevention: Diabetes
2. Chronic Disease & Disability Prevention: Childhood Obesity
3. Smoking During Pregnancy

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

1. Diabetes: Blood glucose screenings; diabetes education
2. Childhood Obesity: women's and children's wellness education; children's nutrition education
3. Smoking During Pregnancy: OB/GYN referrals for smoking cessation; smoking cessation courses