

**BRUNSWICK
COUNTY
COMMUNITY
ASSESSMENT**



2011

Report compiled by the Brunswick County Health Department
With cooperation from the community

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Acknowledgements

Various community groups and individuals were involved in this assessment of the health of Brunswick County. Contributors included both local and regional partners including but not limited to:

Brunswick Community College School of Nurses

Brunswick County School System

Brunswick County Libraries

Brunswick Electric Members Corporation Annual Meeting

Brunswick Novant Medical Center

Brunswick Realtors Association

Brunswick Transit System

Boiling Spring Lakes Food Pantry

Community Care Network of the Lower Cape Fear

Dosher Memorial Hospital

Hope Harbor Home

Lion's Club of Southport

Martin Luther King Society

Mexican Grocers

Minority Infant Mortality Task Force of Brunswick County

NAACP of Brunswick County

New Hanover Regional Medical Center

New Hope Free Clinic

Office of Preparedness and Planning

University of North Carolina Wilmington

Southport/Oak Island Chamber of Commerce

United Way

Executive Summary

Healthcare needs of a community are constantly changing and Brunswick County is no different. Since the last Community Health Assessment in 2007, there have been some improvements but also some new concerns.

Teenage pregnancy rate in Brunswick County has decreased to below the State rate.

Women Who Smoke while Pregnant has decreased from 28% in 2003 to 15.9%.

Dental service for Medicaid eligible children has increased to 49.0%.

Unfortunately unemployment rate, poverty rate, and lack of health insurance are on the rise.

Two thirds of adults are overweight or obese and childhood obesity in particular has tripled.

Previous Community Health Assessments have revealed the need to create programs to combat minority infant mortality, a medical home for new Medicare patients, and diabetes education. Each of these issues now have programs with dedicated staff to ensure improvements.

The Community Health Assessment for 2011 has revealed the need to work on childhood obesity because of the adverse impact it has on the children as they grow older. This will involve collaboration with other community groups who focus on children.

Introduction

The community assessment is conducted by the Health Department every four years to determine the Public Health needs of the community and use the data to develop specific programs to target their needs. Previous assessments have resulted in the formation of a Minority Infant Mortality Task Force to reduce minority infant mortality, formation of a clinic to address Adult Health Services including seniors' health, a Child Car Seat Program, a dental care for children, and a Diabetes Education program.

This assessment is designed to include quantitative data (vital statistics) and qualitative data (surveys and focus groups). The quantitative data supplied by the North Carolina State Center for Health Statistics gives hard data on how they rank against state averages across a wide spectrum of health factors. The quantitative data is utilized as a tool for the residents of the county to have a say about which health issues are included in their community's Health Action Plan. Community input was received from members of the minority community, medical community, faith-based community, senior's community, and concerned citizens from the general population.

County Description

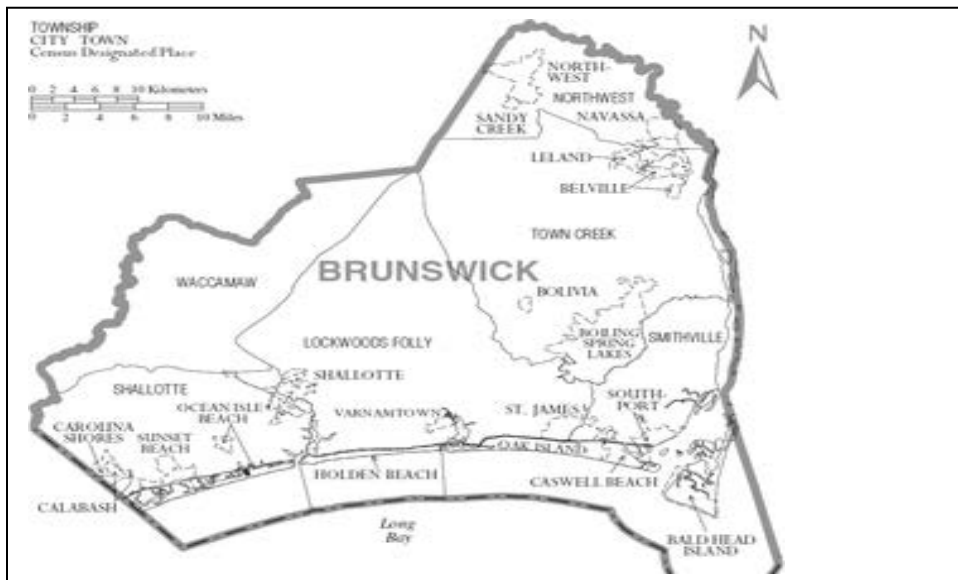
Geographic - Brunswick County is located in the Southeastern most point in North Carolina bordered by New Hanover, Pender, Columbus, and Horry County, South Carolina. The temperate climate and beautiful beaches have opened it up to tremendous population growth over the past ten years. The county has 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 here.

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

Municipalities - 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 – 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.



History

The county was formed in 1764 from parts of Bladen County and New Hanover County. Once the home of the Tuscarora Native Americans, it was named for the colonial port of Brunswick Town which was itself named for Duchy of Brunswick-Luneburg, now Northern Germany. Brunswick Town grew rapidly and became a busy port for exporting forest products used for merchant ships, tar, pitch, and turpentine. The Brunswick River and the Cape Fear River provide access to the Atlantic Ocean. In 1792, the Town of Smithville was formed later to be named Southport. Southport was the county seat until 1977 when it was moved to Bolivia. Brunswick County continues to make use of its natural resources, a strong industrial base, a thriving tourism economy, and a viable transportation system. Corn, Wheat, and Soybeans

Demographics

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.

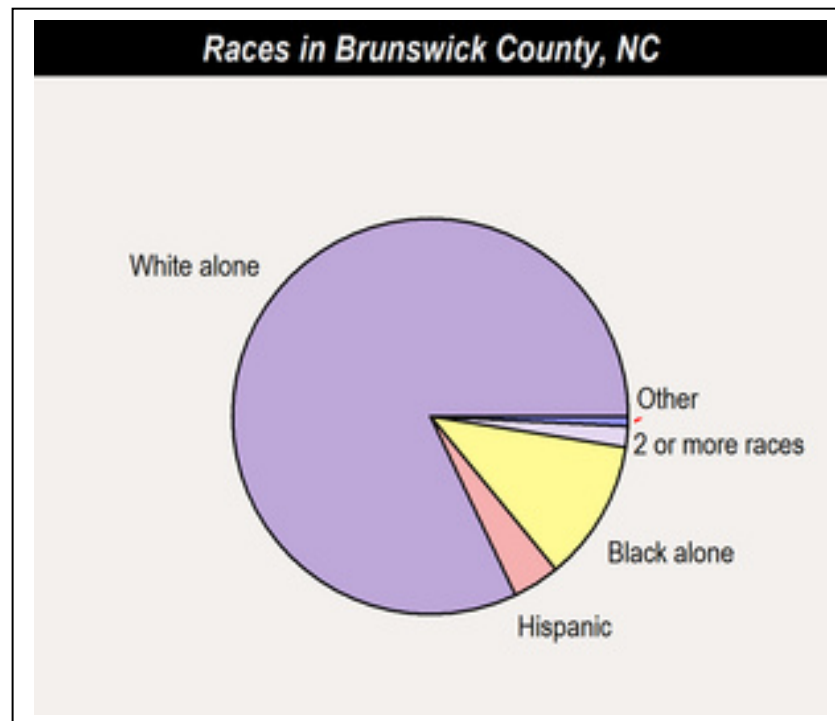
According to the 2010 US Census, Brunswick County has a population of 107,431. (34% urban, 66% rural) The population in 2000 was 73,143 resulting in a 46.9% increase to 2010.

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%.



High school graduation is 84% and persons with a bachelor's degree or more are 18.5%.

The per capita income has risen from \$19,857 in 2007 to \$25,993.

The median household income has risen from \$35,888 in 2007 to \$44,891.

The un-employment 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 1578 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%.

INCIDENCE OF SELECTED HEALTH ISSUES

The Burden of Obesity in Brunswick County

Obesity rates continue to grow in North Carolina and Brunswick County according to a report from Eat Smart Move More Division of Public Health. Childhood obesity in particular has tripled due largely to complex changes occurring in social and physical environments of children.

Nationally, obesity is occurring in both boys and girls, across all states and socioeconomic lines, and among all racial groups although specific subgroups including African Americans and Hispanics are disproportionately affected.

Four of ten causes of death are related to obesity, coronary heart disease, diabetes, stroke, and cancer. Also hypertension and arthritis

In North Carolina, two thirds of adults are overweight or obese.

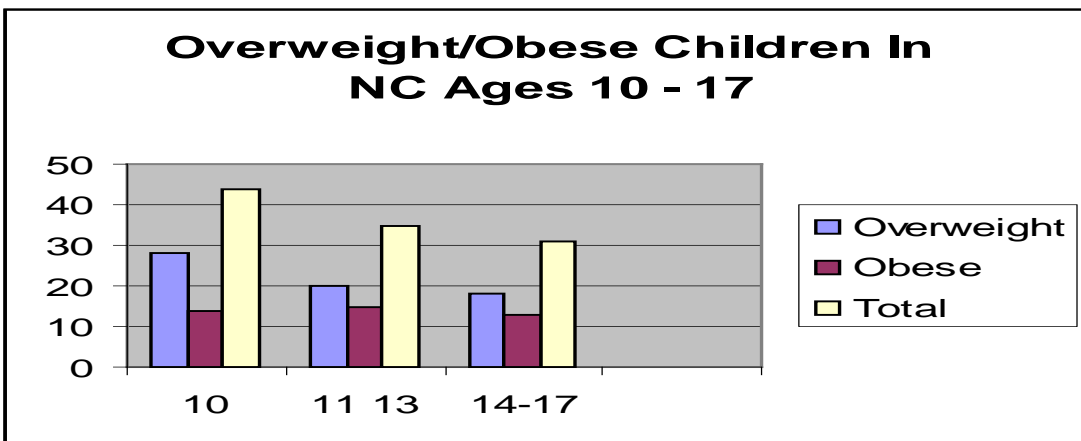
Forty-five percent of parents have reported their child's health care provider had talked with them about how they can help their child to be more physically active.

Childhood obesity in North Carolina is 5th in nation. Among 10 – 17 years old, 20% are overweight and 14% are obese.

10 years old – 28% are overweight, 14% are obese (44%)

11 – 13 years old – 20% are overweight, 15% are obese (35%)

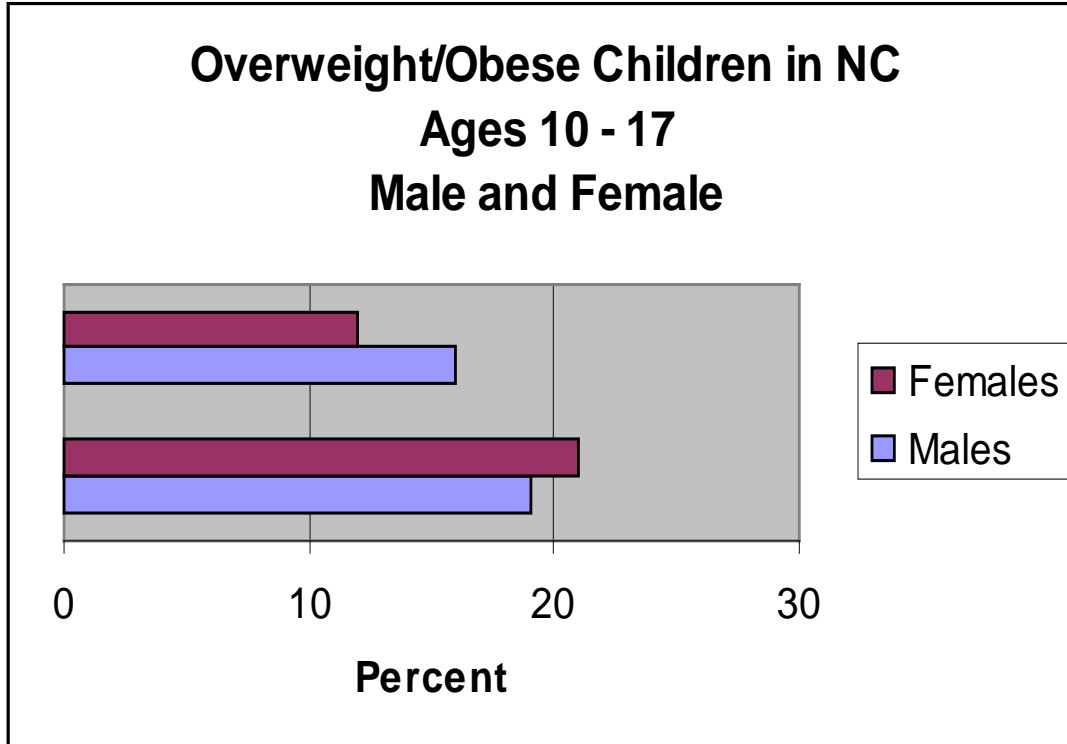
14 – 17 years old – 18% are overweight, 13% are obese (31%)



Males are more likely to be obese, females more likely to be overweight

Males 10 – 17 years old – 19% overweight, 16% obese (35%)

Females 10 – 17 years old – 21% overweight, 12% obese (33%)

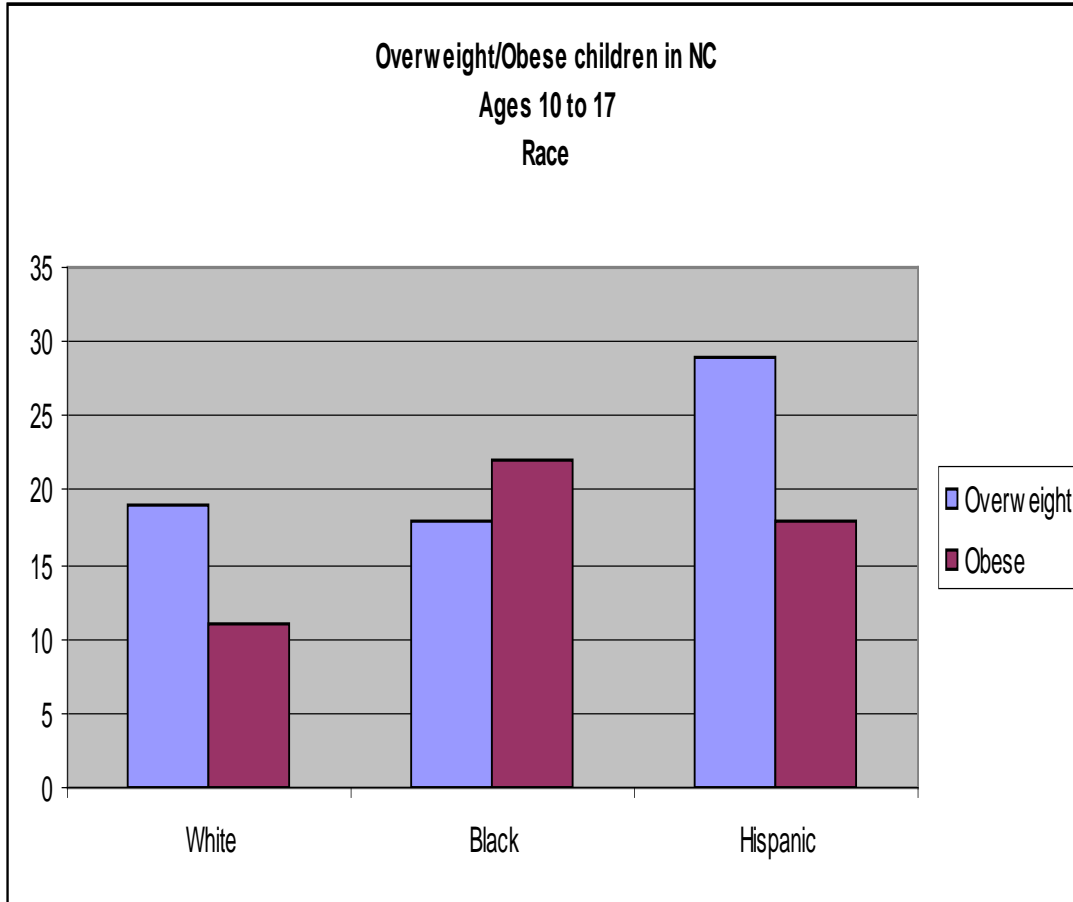


Minorities are more likely to be obese

White 10 – 17 years old – 19% overweight, 11% obese

African American 10 – 17 years old – 18% overweight, 22% obese

Hispanic 10 – 17 years old – 29% overweight, 18% obese



Brunswick County

67.8% receive a free or reduced price for lunch at school compared to 53.7% for the state and an increase from 52.5% in 2005

Percent of low income children who are obese

2005 – 16.8% increase in 2009 to 18.4%

Obesity is attributed to a high rate of physical inactivity and unhealthy eating habits

85% of high school students do not eat 5 fruits of vegetables per day.

One third of all age children eat one serving or less of vegetables per day

One third eat fast food two or more times per week

29.6% drink whole milk with 40% African American

Sedentary lifestyle

49.9% watch two hours or more of television per day

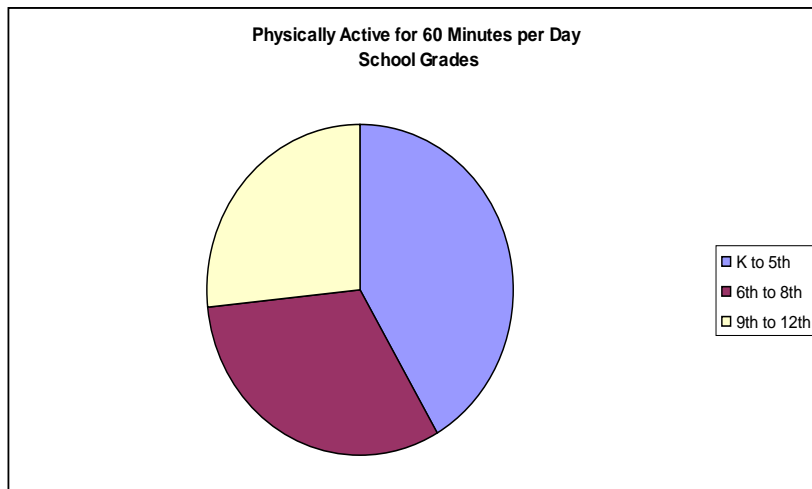
16.6% physically inactive compared to 14.3% for state

Percent of children who are physically active for 60 minutes per day

K-5th grades - 42%

6th – 8th grades - 32%

9th – 12th grades – 27%



HEALTHCARE RESOURCES

There are 2 hospitals in Brunswick County, Doshier Memorial Hospital in Southport and The Brunswick Novant Medical Center in Supply.

Doshier Memorial Hospital has 25 staffed acute care (inpatient) beds and 64 nursing center beds partially funded through taxes collected from the citizens of Smithville Township. Medical services include cardiac rehabilitation, respiratory therapy, diabetes education, emergency services, physical therapy, nursing center, and surgical services.

Brunswick Novant Medical Center (formerly Brunswick Community Hospital) is a 60 bed hospital that exists to improve the health of the community, one person at a time. This hospital has recently gone under new management with Novant Health, a non-profit group. Their new hospital opened in July 2011. Medical services include maternity, cardiopulmonary, cardiac rehabilitation, physical therapy, and surgical services.

New Hope Free Clinic. There are several free clinics in the region with New Hope Clinic being the largest in Brunswick County. New Hope has been providing free healthcare to uninsured, low income residents of Brunswick County since 1998. The clinic is open Monday through Friday and offers an array of services including medical treatment, dental, dermatology, podiatry, and pharmacy assistance. The Cape Fear Health Net works closely with the free clinics to navigate patients through the healthcare maze.

Brunswick County Health Department offers an array of services mandated by the State and Federal governments. In addition the health department offers an Adult Primary Care Clinic as well as a Pediatric Care Clinic. They have a very strong Flu Shot program providing 6000 flu shots per year. They are one of the innovators of the School Based Immunization Initiative providing immunizations in the schools. The health department was one of the pilot counties to provide Diabetes Education with a statewide program designed to be in all North Carolina health departments.

There are several home health care agencies in the county providing home care and a hospice organization provides care to terminally ill patients and their families.

Health Data Collection Process

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

Primary Data

Surveys – A total of 2088 were collected.

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. Doshier Memorial Hospital and Brunswick Novant Medical Center distributed surveys via email and hard copy. University of North Carolina 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.

As with any survey of this type, 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.

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

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

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

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

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

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

6. How do you rate your own health?

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

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

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

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

10. Does your family have a basic emergency supply kit?

1. Yes

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

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

Yes

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

Focus Group

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 men, and retired professionals. Format was a group discussion.

BRUNSWICK COUNTY FOCUS GROUP QUESTIONS

1. General Questions about the Community

- a. What are some of the strengths in Brunswick County?

Volunteerism to hospitals, Wilmington health care, weather EMS response time, police citizen programs, flu shot programs, schools

- b. What are some of the challenges in Brunswick County?

Obesity/diabetes in students, mental health services, need for adult daycare, economic development and jobs, technical school, wheelchair access, lack of communication about health services,

2. Health And Welfare Improvement

- a. What makes a healthy community?

Smoke free, side walks and bike lanes, activities for all age groups, nutrition education, and health spirit

- b. What is a major health concern in Brunswick County?

Childhood obesity, lack of gerontologists, care giver support groups, diabetes education, asthma, adult dental service, lack of insurance

c. What is the major environmental issue in Brunswick County?

Failing septic systems, illegal dump sites, homeless living in the woods, lack of public restrooms, lack of recycle program,

d. Describe collaborative efforts in your community. How can we improve our level of collaboration?

Churches supporting food banks, health department working in schools for immunizations, lions club vision screening, Kiwanis, communities in schools, Brunswick literacy council, Brunswick senior resource, police resource officers

3. Services

a. How effectively do community health services meet the needs of the indigent?

The uninsured? The non-English speaking?

The indigent: loss of jobs, growing population, newly poor, generally embarrassed,

The uninsured: State programs, health choice insurance for children

The non-English speaking: English as a second language program, health department offers interpreters, schools are working to improve service

b. What barriers exist to the access of health care in Brunswick County?

Money, lack of health screening, language, size of county, social stigma of being poor

c. What additional services or changes to existing services do you feel are needed?

Dissemination of information of county agencies and programs, health department open seven days a week, county wide transportation system

- d. If you had unlimited resources to improve the quality of life in Brunswick County, how would you spend the money?

Increase school nurse ratio, reduce hunger, computers for everyone, transportation system, caregiver organization

- e. Is there any other information that you would like to share?

How do you get health information?

Television, e-mail, news papers, internet, social interaction

Secondary Data

Health Indicators

All the worksheets were completed comparing Brunswick County to the average range in North Carolina. Peer county is Burke. Any of the categories that were higher than the State average are highlighted and are considered a priority.

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
<i>Sexually Transmitted Diseases</i>			
Gonorrhea Rate per 100,000 population	109.5	188.2	90.0
Chlamydia Rate per 100,000 population	237.0	345.6	171.0
Syphilis Rate per 100,000 population	3.2	3.7	2.8
AIDS Rate per 100,000 population	1.1	2.0	.4
Teen Pregnancy Rate per 1,000 teens (Aged 15 to 19)	55.3	58.8	61.1
Percent of Teens that do not use Condom		39%	

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
<i>Maternal and Child Health</i>			
Low Birth Weight (<2,500 g) per 100 births	7.7	9.1	8.4
Very Low Birth Weight (<1,500 g) per 100 births	2.0	1.8	1.6
Gestational Age Less Than 37 Weeks per 100 births		12.7	
Infant Mortality Rate per 1,000 live births	6.8	8.2	8.8
Black Infant Mortality Rate per 1,000 black live births	9.9	15.4	15.1
White Infant Mortality Rate per 1,000 white live births	7.5	6.0	9.3
Neonatal Infant Mortality Rate per 1,000 live births	4.2	5.6	5.9
Postneonatal Infant Mortality Rate per 1,000 live births	3.7	2.7	3.8
SIDS Mortality per 1,000 live births	7.8	8.3	9.7
Percent of Women Who Smoked During Pregnancy	15.9	10.4	19.9
Percentage of Children Screened for Elevated Blood Lead Levels by Age 2	58.8	44.9	61.7
Percent of Non-pregnant women who do not consume folic acid	47.3%	48.4%	

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
Cancer			
Lung Cancer			
Mortality Rate per 100,000 population		50.2	
Incidence Rate per 100,000 males	56.3	71.4	80.1
Breast Cancer (Female)			
Mortality Rate per 100,000 females	22.7	23.5	25.5
Female Incidence Rate per 100,000 females	140.4	151.9	149.4
Colon Cancer			
Mortality Rate per 100,000 population	13.3	15.9	17.0
Prostate Cancer			
Mortality Rate per 100,000 males	22.2	25.8	23.6
Incidence Rate per 100,000 males	87.9	158.8	137.5
Adult Smoking Prevalence	22.5	20.9	
Mammography Utilization	80.1	78.5	74.7

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
<i>Communicable Diseases Cases 2009</i>			
TB	5	162	2
Campylobacter	25	378	
Salmonella	171	842	
Streptococcus	1	85	
Hepatitis A	2	25	
Hepatitis B	52	138	
Hepatitis C	3	13	
Legionella	2	39	
Lyme Disease	6	65	
Pertussis	2	213	

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
Chronic Diseases			
Heart Disease			
Mortality Rate per 100,000 population	192.1	187.8	213.0
Stroke			
Mortality Rate per 100,000 population	118 (Black=180)	125	
Cirrhosis			
Mortality Rate per 100,000 population	8.5	9.8	13.4
Diabetes			
Mortality Rate per 100,000 population	22.9	23.0	29.2
Incidence	12.7%	9.6% 15.6% Black	
COPD			
Mortality Rate per 100,000 population	41.4	32.0	34.8

HEALTH INDICATOR	BRUNSWICK	NORTH CAROLINA	PEER COUNTY
Chronic Diseases Continued			
High Blood Pressure			
"Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?"	30.8	28.8	
Asthma Hospitalizations per 100,000 population	106.4	117.1	88.1
Overweight / Obesity			
Rate of Adults	36.0/32.0	36.2/29.5	
Rate of obese children age 2 - 4	14.4 (2000=10.8)	15.4	
Rate of obese children age 5 - 11	20.9	25.7	
Physical Activity			
"During the past month, did some physical activity	41.5	44.0	
Fruit and Vegetable Consumption			
5 or more per day	18.5	21.6	
Adult Alcohol Use			
5 drinks or more in the past month	12.4	12.9	

Health Data Results

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

Surveys

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

Focus Group

Smoke free community

Safe places to exercise

Childhood obesity

Lack of health screenings

Better dissemination of health information

Secondary Data

Rate of obesity among total population

Increase in the rate of childhood obesity

Lack of recommended consumption of fruits and vegetables

Hypertension especially among African Americans

COPD mortality

Stroke especially among African Americans

Heart Disease mortality

Smoking prevalence especially among women who smoke during pregnancy

Very low birth weight

Percent of teens who do not use a condom

Community Concerns / Priorities

The Brunswick County Health Department has determined from in-depth analysis of the data the following list of priorities to be used to develop programs over the next 5 years.

1. Obesity reduction efforts in the community especially schools
2. Diabetes education and support
3. Provide health screening 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