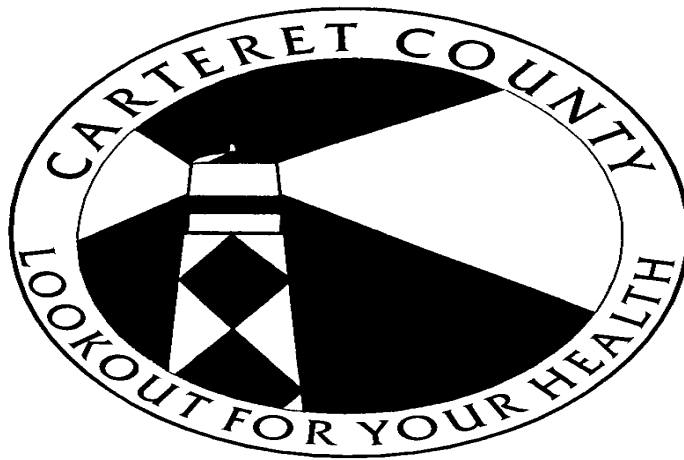


# Carteret County 2005 Community Health Assessment



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## **I. The Community Health Assessment**

### **A) PURPOSE OF THE COMMUNITY HEALTH ASSESSMENT**

The following document represents the combined efforts of the Carteret County Health Department and Healthy Carolinians of Carteret County.\* It is the result of efforts to assess the health needs of Carteret County, as required every four years by the North Carolina Department of Health and Human Services.

The purpose of the Community Health Assessment is to provide an understanding of the current health status and needs of Carteret County, along with community strengths, assets, and potential resources to address those needs. The goal is to provide a compilation of health data and information with which appropriate planning may take place to improve the overall health of the community.

### **B) TEAM COMPOSITION**

The Community Health Assessment Team was assembled with a core group of staff from the Carteret County Health Department. Members of Healthy Carolinians of Carteret County participated in the important decision-making process used to identify the top health priorities for the community. The combined partnership will develop action teams to address specific health needs. Monies were also obtained from Healthy Carolinians to assist with printing and dissemination of assessment findings. Among the organizations represented in the Healthy Carolinians group are the following:

- Carteret General Hospital
- Carteret County Schools
- NC Cooperative Extension
- Carteret County Parks and Recreation
- Mayor's Committee for Persons with Disabilities
- Community volunteers
- Carteret County Health Department
- Business community
- Faith-based community

### **C) PROCESS OVERVIEW**

The Community Health Assessment survey instrument was distributed throughout Carteret County by the Community Health Assessment Team. Surveys were collected and submitted for summary and analysis by Carteret Community College. Community forums were also held in three different locations to obtain verbal input from the community. The survey produced primary data on current health status and needs, as contrasted with existing secondary data which was collected from a variety of sources on state and community health status. The latter provided a basis for comparison of county health conditions to those for the state as a whole, thereby identifying issues for consideration as top health priorities in Carteret County.

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*\*The name Beacon Health Partners was used in the Community Health Survey, however the name has recently changed back to Healthy Carolinians of Carteret County.*

A subcommittee of the Healthy Carolinians of Carteret County will be formed in January, 2006 and a weighted analysis process will be utilized to develop priorities. Once these priorities have been determined and approved by the entire Healthy Carolinians group they will be added to the report as an addendum. A summary of the Community Health Assessment for Carteret County will be distributed through various modes. Task forces will be established to develop local health initiatives for addressing the report findings.

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\*\*Secondary data was gathered by the Community Health Assessment team and was collected from various sources and is cited throughout the document. Data sources include websites such as the NC State Center for Health Statistics, the 2000 Census accessed through U.S. Census Bureau, LINC ( Log Into North Carolina), American FactFinder, The North Carolina Child Advocacy Institute, the Sheps Center for Health Services Research and Eat Smart, Move More...North Carolina.

# Community Profile



## *“Carteret County is Defined by Water”*

### **A) GEOGRAPHY**

Carteret County, also referred to as “The Crystal Coast,” covers an area of approximately 1,064 square miles, of which 524 square miles are land. This coastal area is geographically the southernmost portion of the Outer Banks (SOBX), bordered on the north by Pamlico Sound and on the east and south by the Atlantic Ocean. The county is bordered by Onslow County and Craven County to the west and northwest. Located midway on the coastline of North Carolina, the county has an average elevation of nine feet above sea level and has large areas of forest and farmland as well as many miles of coastline and marshes. The county is composed of eleven municipalities plus many smaller communities that have their own unique identities and history.



### **B) HISTORY**

The county’s written history dates back to around 1525. Carteret was first home to the Tuscarora Indian tribes. The early settlers came mainly from the other American colonies rather than directly from Europe. They began moving in to the region as early as 1706 and slowly began to force the tribes away from the Coast. By 1766 all the native people had either been forced to migrate north or to live on a reservation in Hyde County. Carteret County was formed in 1722 from Craven and was named in honor of Sir John Carteret who later became the Earl of Granville, one of the Lords Proprietors of North Carolina. Beaufort, originally called “Fishtown,” the third-oldest town in North Carolina, was surveyed in 1713 and incorporated in 1722. Small fishing settlements and villages grew throughout the county. Huguenots, Germans, Scotch-Irish, French, English and Quakers were the mix of people coming to settle the land. Exported products of the plantations were tobacco, grains, salted meat and fish, lumber and naval stores - tar, pitch, rosin and turpentine. The lumber industry was the most widespread and of

greater monetary value in the county. Early sawmills were established and operated in what are now Mill Creek and Newport areas.

Fishing and water-related activities were and continue to be a chief commercial activity of Carteret County. The coastal Indians and settlers depended on fishing for much of their food and trade. Through the years, whaling, menhaden fishing, mullet, seatrout, diamond-back terrapin, oyster, bay scallop, crab, and shrimp fisheries have played a part in the development and commerce of the county

Trade within Carteret County developed along Indian trails or “trading paths.” These narrow trails widened over time and use and some made into roads. Eventually, the “Great Trading Path,” running from the coast to the western part of NC, became part of a post road over which a mail and stage line was established in 1789, running from Beaufort to Pollocksville.

Education was slow getting started in the county except among the wealthy. Most small farmers were too busy with their labors to afford the time. Children of the wealthy had instruction in the home and then sent out of the colony for higher training. The arrival of Scotch-Irish and German settlers provided great impetus to education, as these two groups made schools a priority in their communities. Hunting Quarters or Atlantic had the first school and eventually became the first accredited high school in the county.

Organized religion as well was slow to get established. The Anglican Church was established by law but was never strong or popular. St. John’s Parish was established in Beaufort in 1724, then a second parish was formed in the western part of the county. The Quakers were the strongest sect until the end of the 1700’s, when the Baptist and Methodist religious organizations also became influential.

The county faced its share of adversity over the years. The coast was both a target and a haven for pirates. In fact, in 1747 the town of Beaufort was overrun by pirates who were eventually driven off by the local farmers and militia. (Blackbeard’s ship was recently discovered in the Beaufort inlet!) The people here played an active role in all of the major conflicts from the Revolutionary War, Civil War, up through WWII when German submarines were off our coast.

By 1861, the county was still only sparsely settled. The Town of Beaufort was a town of 3000 and already had a reputation as a resort area catering to North Carolina society. Morehead City, established in the mid 1850’s, reflected more the business and working interests. Now the most populated town in the county, Morehead City was a planned railroad town, bringing passengers from the middle of the state to spend summers at the large hotels along Bogue Sound. The railroad was also used for commerce. In the early 1900’s a bridge connected Morehead City to Bogue Banks, which has become a famous east coast vacation area. In the last several years, population growth has been spurred in the western portion of the county. Beaufort and areas “Down East” are beginning to see new subdivisions and land development, promising population growth at that end of the county.

## C) DEMOGRAPHICS

According to the figures of the US 2000 Census:

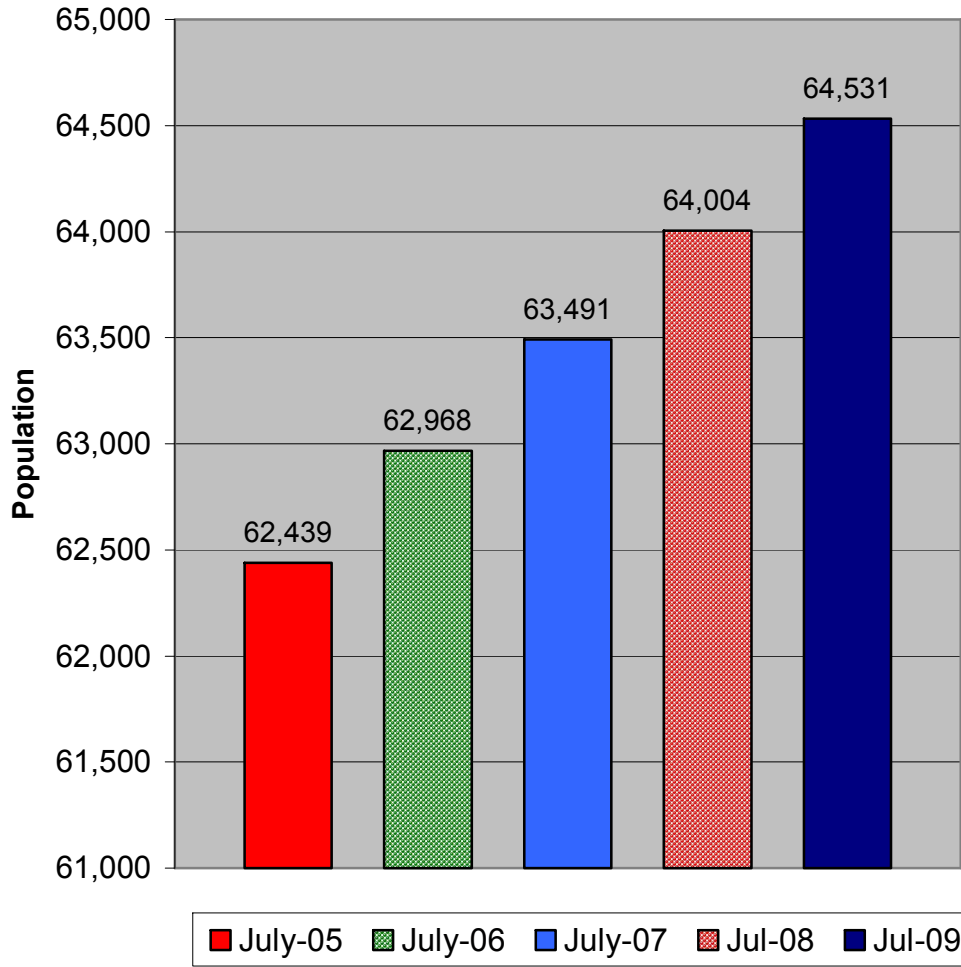
- Carteret County has a permanent population of approximately 59,383 persons (Table 1)
- Carteret County population grew by more than 13.3% from 1990 to 2000
- Carteret County population grew an estimated 4.2% from 2000 to 2004 (Table 1)
- Carteret County is projected to grow to 64,531 by 2009 (Figure 1)
- There are 25,204 households in the county averaging 2.31 persons per household
- 4.9% of the residents are under 5 years (Table 2)
- 20.7% of the residents are under 18 years (Table 2)
- 17.2 % of the residents are 65 years and over (Table 2)
- The median age for males and females is 42.3 (Table 2)
- Carteret County has 11 municipalities, with Newport growing the fastest (Table 3)
- In 2004 it was estimated that there were 11,464 persons ages 0-17, 2,825 ages 25-29 and 5,213 ages 45-49
- According to the 1990-2000 Population and Growth (*by total and % Hispanic*) there was a growth of 8.4 % in the county
- Few minorities reside in Carteret County: 7.0 % are African American, 1.7% are Hispanic or Latino, 0.4% American Indian and Alaska Native, 0.5% Asian, and 0.1% are Native Hawaiian and Other Pacific Islander. (Figure 2)
- Carteret County townships by race & Hispanic or Latino origin (Table 4)
- In 2000 the seasonal population was 134, 676 (not including permanent population)

**Table 1**

<b>Carteret County Population (1990) (2000)</b>		
1990 *	2000	Net
Population	Population	Change
52,407	59,383	+13.3%
<b>Carteret County Population (2000) (2004) (estimation)</b>		
2000	2004 (July)	Net
Population	Population	Change
59,383	61,870	+ 4.2%

**Figure 1**

### Carteret County Annual Projected Population Totals



Source: North Carolina Demographics

**Table 2** Age Group and Sex U.S Census 2000 Carteret County and North Carolina

Age Group	<u>Carteret County</u> <u>Number</u>			<u>Carteret County</u> <u>Percent</u>			<u>North Carolina</u> <u>Percent</u>		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>All ages</b>	<b>59,383</b>	<b>29,157</b>	<b>30,226</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>
<b>Under 5 years</b>	2,913	1,495	1,418	4.9	5.1	4.7	6.7	7.0	6.4
5-9	3,346	1,735	1,611	5.6	6.0	5.3	7.0	7.3	6.7
10 -14	3,678	1,892	1,786	6.2	6.5	5.9	6.8	7.1	6.6
15-19	3,491	1,793	1,698	5.9	6.1	5.6	6.7	7.0	6.4
20-24	2,693	1,376	1,317	4.5	4.7	4.4	7.2	7.7	6.7
25-29	3,195	1,738	1,457	5.4	6.0	4.8	7.5	7.8	7.2
30-34	3,611	1,806	1,805	6.1	6.2	6.0	7.6	7.8	7.4
35-39	4,491	2,207	2,284	7.6	7.6	7.6	8.1	8.3	8.0
40-44	4,854	2,343	2,511	8.2	8.0	8.3	7.8	7.9	7.8
45-49	4,716	2,297	2,419	7.9	7.9	8.0	7.1	7.0	7.1
50-54	4,630	2,304	2,326	7.8	7.9	7.7	6.4	6.3	6.4
55-59	4,041	1,951	2,090	6.8	6.7	6.9	5.0	4.9	5.1
60-64	3,497	1,689	1,808	5.9	5.8	6.0	4.0	3.9	4.2
65-69	3,194	1,519	1,675	5.4	5.2	5.5	3.5	3.3	3.7
70-74	2,799	1,334	1,465	4.7	4.6	4.8	3.1	2.8	3.5
75-79	2,115	929	1,186	3.6	3.2	3.9	2.5	2.0	3.0
80-84	1,197	481	716	2.0	1.6	2.4	1.6	1.1	2.0
85-89	629	207	422	1.1	0.7	1.4	0.9	0.5	1.2
90 years over	293	61	232	0.5	0.2	0.8	0.4	0.2	0.7
<b>Under 18 years</b>				<b>20.7</b>			<b>24.4</b>		
<b>65 years and over</b>				<b>17.2</b>			<b>12.0</b>		
<b>Median age for Male &amp; Female</b>				<b>42.3</b>			<b>35.3</b>		

Sources: U.S. Census Bureau(American FactFinder)

**Table 3 Carteret County 2004 Municipal Growth Estimates**

Municipality	2000	2004	Growth Percents
Atlantic Beach	1,781	1,791	0.6
Beaufort	3,771	3,888	3.1
Bogue	590	629	6.6
Cape Carteret	1,214	1,298	6.9
Cedar Point	817	855	4.7
Emerald Isle	3,488	3,720	6.7
Indian Beach	95	92	-3.2
Morehead City	7,691	8,041	4.6
Newport	3,349	3,608	7.7
Peletier	487	521	7.0
Pine Knoll Shores	1,524	1,574	3.3

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*Source: NC Demographics*

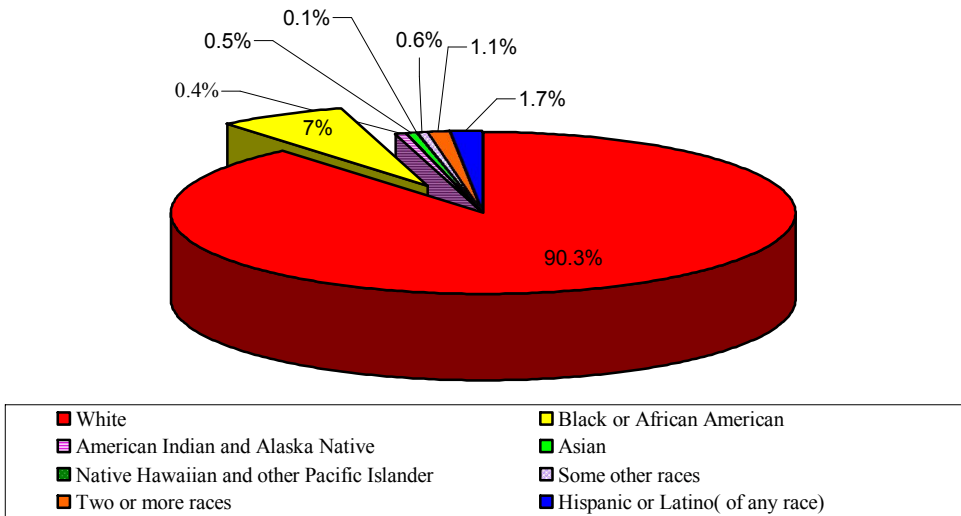
**Table 4** Carteret County Population by Race and Hispanic or Latino origin, for Township (2000 Census)

Township	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino (of any race)
Atlantic	796	1	9	1	0	0	10	11
Beaufort	6,006	1,435	23	23	2	102	74	182
Cedar Island	322	0	0	1	0	0	1	0
Davis	412	0	0	0	0	0	0	1
Harkers Island	1,503	0	5	3	0	1	13	2
Harlowe	1,226	12	10	2	0	1	21	23
Marshallberg	524	0	2	2	0	0	0	0
Merrimon	542	112	1	0	0	0	2	4
Morehead	21,367	1,689	125	149	19	131	268	374
Newport	7,355	601	39	79	3	93	156	287
Portsmouth	0	4	0	0	0	0	0	0
Sea Level	457	2	1	0	0	0	1	0
Smyrna	673	0	0	1	0	0	5	0
Stacy	203	2	1	0	0	0	0	0
Straits	2,650	0	8	4	1	5	18	21
White Oak	9,575	293	34	58	10	24	79	130
<b>Total</b>	<b>53,611</b>	<b>4,151</b>	<b>258</b>	<b>323</b>	<b>35</b>	<b>357</b>	<b>648</b>	<b>1,035</b>

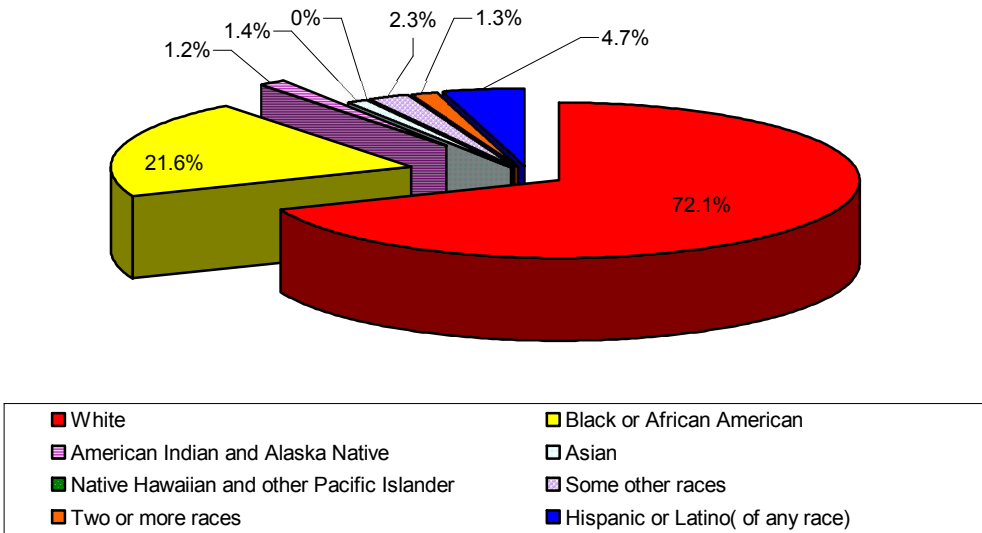
Source: U.S. Census Bureau

**Figure 2**

**Carteret County Distribution by Race and Ethnicity (2000)**



**North Carolina Distribution by Race and Ethnicity (2000)**



Sources: U.S. Census Bureau( American FactFinder)

## **D) ECONOMIC**

The Carteret County Economic Development Council (EDC) is the source of much of the information on our local economy. According to the EDC, Carteret County's economy is booming. Real estate prices are climbing, new residents are moving into the area, business is expanding, new educational and training opportunities are being offered, and more commercial development can be seen everywhere.

Another positive economic sign in 2005, the NC Department of Commerce elevated Carteret County from a Tier 4 to a Tier 5 ranking, which is the highest tier, as one of the less economically distressed counties in the state. There are 17 other NC counties in this tier. The ranking is based on population growth, per capita income and unemployment rates. Population growth was the factor that moved the county to top tier level. Carteret moved from the 67<sup>th</sup> to 39<sup>th</sup> most populated county in the state. These tier rankings can have far reaching implications for attracting new business to the area.

Morehead City is home to a deep water port where over fifty percent of the cargo is related to agribusiness. The top international trading partners utilizing our port are Venezuela, China, Indonesia, Brazil, Indonesia and Turkey. Main imports are sulfur, scrap metal, rubber, asphalt, and ore, mica, and schist. Top exported products are phosphate, aggregate, metal products, military, and general merchandise/miscellaneous. During 2005, port business has increased by 20% after enjoying a similar growth in 2004. An upcoming expansion program will add another warehouse to the existing port, and develop a new port facility at Radio Island. The port expects to maintain its' level of growth in part due to the unfortunate effect of Katrina on the port of New Orleans and the diversion of their business to other ports.

The seafood industry, tourism and the Marine Corps Air Station, Cherry Point provide many jobs for county citizens, creating the highest economic impact on the area. 31% of the civilian employees at Cherry Point, in Craven County, live in Carteret County. Local businesses and firms pursuing more military business contracts and opportunities will reap even more economic benefits.

The top seven county employers of manufacturing jobs are Atlantic Veneer, Bally Refrigerated Boxes, SPX Air Treatment, Parker Marine Enterprises, Jarrett Bay Boatworks, Creative Outlet and Veneer Technologies.

Carteret Community College is launching a new comprehensive marine technology training facility, which will train workers for new and expanding marine industry jobs. Carteret County is considered to be the center of the boat building and service industry not only in the state, but the Mid-Atlantic region.

Top employers in the non-manufacturing sector are Carteret County Schools, Carteret General Hospital, Wal-Mart, Carteret Community College, Carteret County Government, Food Lion, Henry's Tackle, and the U. S. Coast Guard.

Marine Science research activities bring \$58 million annually into the economy and provide one out of every 10 jobs in Carteret County. There are nine coastal research stations located here,

and Carteret Community College is building a biotechnology laboratory to explore farming sea life for chemicals used in pharmaceuticals and industry.

Tourism revenue continues to grow annually. In 1990, \$132.03 million of revenue was reported; in 2004, \$236.24 million with 3,320 jobs in the county directly resulting from travel and tourism. The Crystal Coast Tourism Development Authority (TDA) is looking at new ways to promote the county as a desirable vacation destination.

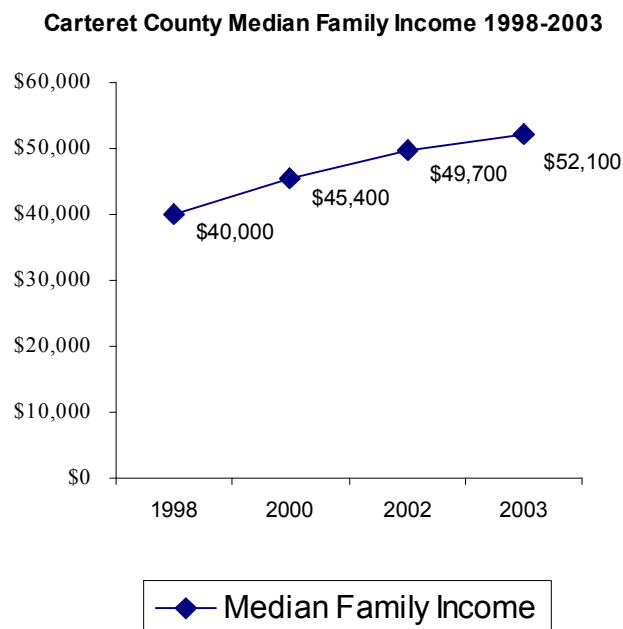
According to the Employment Security Commission, during the second quarter of 2004, 39% of county workers were employed in the “Service-Producing” sector; 11% in “Education and Health;” and 10% in “Trade, Transportation and Utilities.”

Fourth quarter figures in 2004 showed that the average weekly wage in Carteret County was \$501.00 compared to NC average of \$715.00. This may be because many workers in the service-producing jobs are working at a lower wage scale.

Tourism creates a seasonal economy for our county as seen in our unemployment rates which are higher in the winter months, lower in the spring and summer. In 2004, the ESC reported the highest rate of 7.4% unemployment in January. The lowest unemployment rate was in September, 2004 with 2.6 % not working. The most recent data available for 2005 in the month of February showed unemployment at 3.9% compared to NC’s rate in March 05 which was 5.2%

In 2004, the annual average number of those in the county’s labor force was 29,291 persons with 28,023 employed and 1,268 not employed.

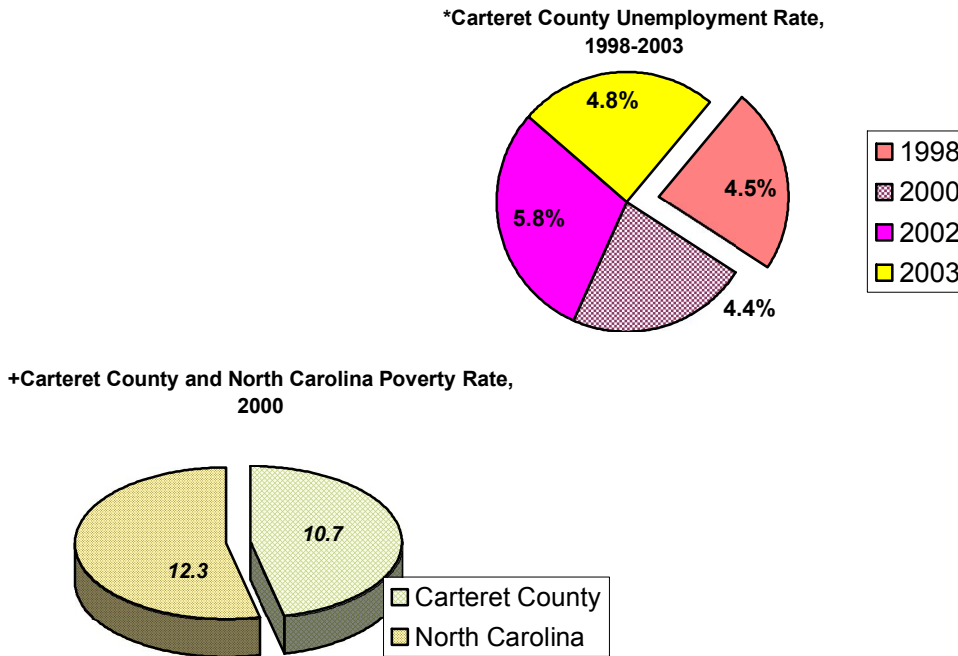
**Figure 3**



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Source: North Carolina Child Advocacy Institute

**Figure 4**



## **E) EDUCATION**

Educational information and data about Carteret County presented here was compiled from community reports published by the Carteret County School System, Carteret Community College, and Carteret County Economic Council.

### **Public and Private Schools**

Public and private schools, a community college, and seven university lab and research centers are located in Carteret County.

“The mission of the Carteret County School System is to graduate all students prepared to be productive citizens.” Our school system consists of 16 schools and one alternative middle school, with a student enrollment of 8,237. The school system is the largest non-manufacturing employer in the county with 1,187 employees. Approximately 3,500 volunteers spent 146,420 hours helping in the schools.

Based on parent surveys, the public schools are perceived to be safe and orderly, that teachers and administrators have high expectations of the students and that parents are kept informed of student progress.

The school system operates from a strategic plan formulated by the system with citizen input. Out of every dollar in the 2003-04 operating budget:

- 81 cents went to instruction
- 13 cents to operations and maintenance
- 4 cents to administration
- 2 cents to transportation

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Sources: \*North Carolina Child Advocacy Institute  
+North Carolina Rural Economic Development Center, Inc.

Per pupil expenditure or “PPE” is a ranking assigned annually by the NC Department of Public Instruction. By dividing the total funds divided by the total number of students, Carteret County is ranked 34<sup>th</sup> in the State with PPE of \$7,729. The child nutrition program is a separate fund and currently 37.5% of Carteret students are on free and reduced lunch.

Student performance in the schools is notable. Reading scores for Grades 3 -8 in 2004 was ranked 10<sup>th</sup> among the state’s 117 systems. Math proficiency in those same grades was ranked 22<sup>nd</sup>. High School End-of-Course exam results were ranked #3 in the state. For five consecutive years, SAT results have increased and remained above the state average.

The dropout rate for grades 7-12 was 3.34% for 2002-2003. The state drop out for the same period was 3.23%, While the 2001-02 high school completion rate was 63.6% and NC average was 58%. 82.1%, in 2000, graduated from high school (NC % 78.1) and 19.8% graduated with a bachelor’s degree or higher (NC % 22.5).

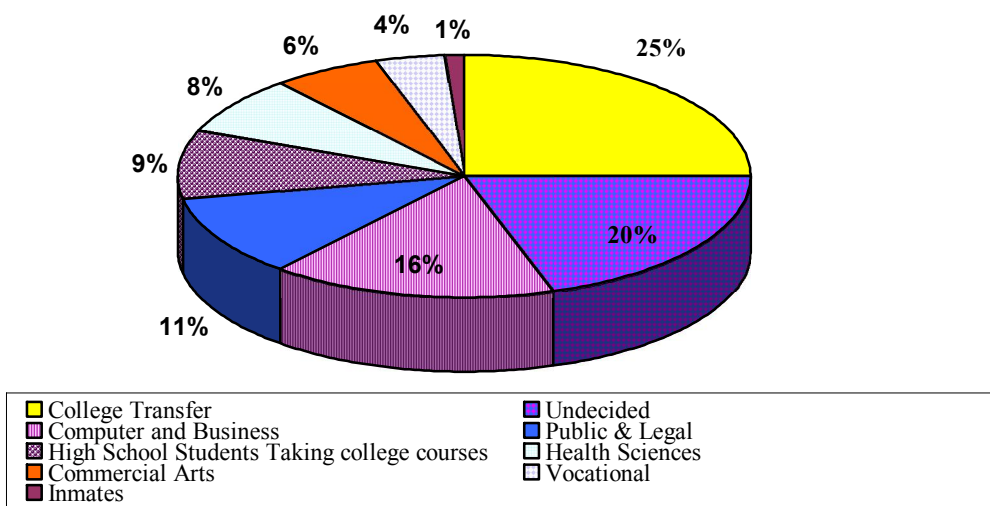
The four private schools in Carteret County are Beaufort Christian Academy, Grace Christian School, Gramercy Christian, and St. Egbert’s Catholic School. As of the fall of 2003, the combined student enrollments were 449 with 35 certified staff.

**Community College**

Carteret Community College (CCC) has a forty year history of providing adult education and workforce training. New facilities and programs have constantly been added to enhance services and adapt to the needs of students, businesses and the community. The enrollment in 2001-2002 was 6,659; 2,491 in curriculum and 4,475 in extension programs.

**Figure 5**

**Enrolled in Curriculum Programs**



Recent programs that have been added are: Associate in Nursing, Associate in Science, Aquaculture Technology, Construction Trades, Culinary Arts, Eco-Tourism, Emergency Medical

Services, Fine Arts Degree, Horticulture Technology, Hotel & Restaurant Management, Sonography and Therapeutic Massage.

### **Science and Research**

Carteret County has the distinction of being a major center of marine science and research on the central eastern coast, with scientists and facilities representing many disciplines.

Duke University Marine Laboratory on Gallants Channel in Beaufort performs and supports research on many issues related to the world's coasts and oceans, as well as being involved with coastal and marine policy and management. Duke offers a full year-round curricular program to undergraduate, professional masters and doctoral students.

Another well-known educational institution, University of North Carolina at Chapel Hill, has been involved in coastal research since the late 1940's at its' Institute of Marine Sciences on Bogue Sound in Morehead City. Its' resident faculty instruct graduate students and post-doctoral associates. Current research includes hurricane/coastal flooding, beach erosion, sea level change, global warming, coastal fertility, fisheries and food chain dynamics. Also, shellfish aquaculture, endangered marine animals, storm water runoff, point source discharges and atmospheric pollution.

North Carolina State University ( NCSU) Center for Marine Sciences and Technology (CMAST) is located on the campus of CCC and provides a facility for research, training, and education regarding the coastal environment and utilizing coastal resources. Faculty, staff and students from NCSU, CCC, NC Cooperative Extension and North Carolina Sea Grant Program share this new facility.

The NC State Seafood Lab began in 1970 and is also housed in the CMAST building. Personnel work with recreational and commercial industries and with state and federal health authorities and consumer groups on seafood safety, quality, nutrition, innovative processing technologies and new products.

CMAST also houses the NC Sea Grant Extension Program that studies water quality, fisheries, and habitat and erosion issues. It also provides advisory and educational services to the public.

The National Oceanic and Atmospheric Administration of the US Department of Commerce also maintains two research facilities in Carteret County: The Center for Coastal Fisheries and Habitat Research on Pivers Island in Beaufort studies management and stewardship of coastal ecosystems, while the NOAA National Weather Service in Newport has been upgrading its abilities to provide marine forecasts for mariners, aviators and all Eastern North Carolina residents. NOAA Weather Radio broadcasts 24/7 to provide forecasts, watches and warnings for severe weather, flooding and tropical storms and hurricanes updates.

### **F) ENVIRONMENTAL CONCERNS**

The environment plays an important role in the over all health of a community. Environmental factors in Carteret County, such as air and water quality are key health indicators to be examined as we assess the health of the county.

Poor air quality has been associated with premature deaths and illnesses due to respiratory illness, cardiovascular disease and cancer. Two indicators of air quality are ozone (outdoor) and environmental tobacco smoke (indoor).

### **Ozone**

Carteret County enjoys relatively good outdoor air quality in comparison to more urban areas of the state. According to the Division of Air Quality, NC Department of Environment and Natural Resources, all of Eastern North Carolina was 92.28% in compliance for major and minor emissions sources.

On the U. S. Environmental Protection Agency's 2005 "Ozone Season Review" Map, no coastal towns were referenced as having an ozone problem. The closest city to Carteret County listed in the EPA's 2004 Air Quality Summary Report was Wilmington, which registered "good" or "moderate" Air Quality Index readings, with only two days reported to be "unhealthy for sensitive groups."

Many urban areas of the state are experiencing problems with air quality due to high ozone levels formed by the reactions of nitrogen oxides, and volatile organic compounds with oxygen. Emissions control will continue and become stricter. Carteret County, beginning January 1, 2006 will be among the last counties to be included in the vehicle inspection and maintenance programs (vehicle tailpipe testing). This inspection program is one of NC's key strategies for reducing ozone. It is estimated that highway vehicles account for about half of the ozone-forming emissions statewide.

### **Indoor Air Quality**

The air we breathe inside our homes, offices and schools can be negatively impacted by cigarette smoke, growth of mold and mildew, and the presence of lead-based products. Many serious medical problems can be attributed to or aggravated by these inside pollutants.

### **Environmental Tobacco Smoke**

Recent medical studies prompted the Centers for Disease Control in 2004 to advise persons with a history of or at risk for coronary heart disease to avoid all indoor environments that permit smoking. The Environmental Protection Agency has classified environmental tobacco smoke (ETS) as a Class A carcinogen, meaning that it has been found to cause cancer in humans. Secondhand smoke can cause lung cancer in nonsmoking adults and serious respiratory illness in children. Parental smoking can cause increased illness in infants and small children, like bronchitis, bronchiolitis and pneumonia.

Smoking during pregnancy has been a well-documented risk factor contributing to low birth weight in babies and a higher incidence of respiratory problems and increased risk of SIDS.

In Carteret County, smoke-free environments in schools, medical facilities, many workplaces, restaurants and institutions have been established by policy. For example, Carteret County School System was one of the first school systems in the state that adopted a 100% tobacco-free policy. Also, the 2003 NC Restaurant Heart Health Survey Statewide Report reported that of 91

restaurants surveyed in Carteret County, 33% had smoke-free policies, and 23% of 93 restaurants surveyed stated they would be interested in assistance in setting up smoke-free dining.

Despite institutional policy changes, smoking rates have not declined substantially in the last decade, according to the Tobacco Prevention and Control Branch of North Carolina. Nearly a quarter of U. S. adults and about one-third of U.S. youth continue to smoke. In NC, the prevalence of cigarette smoking among adults in all age groups is slightly higher than in the United States as a whole. In 2001, roughly 1.4 million adult smokers lived in North Carolina.

There is no county specific data on tobacco use except in the area of smoking during pregnancy. The State Center for Health Statistics does have data that shows between 1998 and 2001, the “Percentage of Live Births Where Mother Smoked during Pregnancy,” Carteret County rates were higher than NC rates. During the most recent data period of 1997-2001, NC rate was 14.4% while Carteret’s was 19.5%.

The most specific data to our area is available through the Eastern Region (NC-37 counties) 2003 Youth Tobacco Survey conducted by the NC Tobacco Prevention and Control Branch. Tobacco use includes cigarettes, or smokeless tobacco (spit, dip or chew).

A total of 1,115 eastern region high school students participated. Survey results show:

- 68.6% of students had ever used any tobacco products
- 34% of students currently use any tobacco product
- 69.16% think smoke from others is harmful to them
- 48.7% want to quit smoking
- 58.7% attempted to quit in the past year
- 89.3% saw or heard anti-smoking media messages in the past month
- 23.12% have an object with a tobacco brand logo
- 25.45% were taught the dangers of tobacco in the past year
- 11.8% buy cigarettes in stores
- 59.7% who bought cigarettes in a store were NOT refused purchase because of their age.

Some highlights from the middle school tobacco survey: 4 in 10 have used tobacco; 14% currently use some form of tobacco; 6 in 10 think smoke from others is harmful to them; more than half want to quit; nearly half of the students were taught the dangers of smoking in the past year; 7 in 10 students were not refused the purchase of cigarettes due to age. 1,021 students participated.

At present, there are no youth smoking prevention programs and only one smoking cessation program available in Carteret County through the Allwell program.

## **Mold and Mildew**

Mold and mildew problems are a common concern in Carteret County, especially after hurricanes, flooding and major rain events. People with asthma, allergies or other breathing conditions are often sensitive to mold. People who are immune suppressed due to HIV infection, cancer patients taking chemotherapy and persons who have received an organ transplant, can develop serious infections due to mold exposure. Mold and mildew can also cause asthma, and

later in this document, asthma hospitalization rates for our county are documented, showing a significantly higher rate for all age groups compared to the state rates.

People who are sensitive to mold may have symptoms of stuffy nose, wheezing, skin irritation, difficulty breathing and shortness of breath.

Mold may be recognized by sight and/or smell: Walls and ceilings may be discolored and a wet or a musty, earthy odor or foul stench is noticed.

Once a mold problem is diagnosed, the home or business needs to be cleaned along with fixing any water problems, such as leaks in roofs, walls or plumbing. Controlling moisture is the critical factor for correcting and preventing reoccurrence.

Carteret County Health Department offers an Indoor Air Quality Program. Because it is not a mandated public health program, the Environmental Health Division can only make recommendations, and does not have the authority to require corrective action, evacuation or condemnation of a home or business. After a visual inspection and checking moisture levels in walls and ceilings, remedial action is recommended. Mold problems in a public building can be referred to an Industrial Hygienist from the State; renters whose landlords are not addressing the problem may be referred to a legal aid agency. The Health department does provide public education on asthma and mold and mildew.

### **Childhood Lead Poisoning**

Childhood lead exposure though declining is still a serious health concern which merits continued monitoring and screening efforts. Sources of lead are often found in or around a child's home environment. Some of most common sources are lead-based paint, soil and house dust, some imported ceramic ware, drinking water contaminated by lead pipes or solder. Adults in certain occupations may bring lead dust on their clothing or bring home scrap materials. Lead can be found in some traditional medicines and folk remedies, cosmetics, jewelry and mini-blinds.

According to North Carolina 2004 Lead Elimination Plan, lead poisoning is still a problem that impacts affected children for their entire lives. The good news is that between 1995 and 2003, the number of children screened for lead increased, and the number of children with confirmed exposures dropped. The plan outlines a strategy to eliminate childhood lead poisoning by 2010 through health and housing initiatives.

In 2004, 62.1% or 725 of Carteret County children ages 1 and 2 were screened for lead exposure. Seven of those children (1%) had a blood lead level over 10 micrograms per deciliter which is considered positive for exposure to lead. When high lead levels are detected, the child's physician and the Health Department can assist the family in conducting a thorough lead investigation of their environment as well as extensive guidance on clean-up of the lead source, nutritional guidelines and hygiene practices.

When compared to NC's overall rates, Carteret County has a markedly higher screening rate (62.1% vs. 39.1%), and a slightly lower percentage of children with elevated blood lead levels (1.0% vs. 1.3%). (Source: NC Lead Screening Data, 2004).

## **Water Quality**

Water quality concerns in a coastal community include drinking water as well as recreational water quality.

The NC Recreational Water Quality Program is the department within NC Department of Environment and Natural Resources responsible for monitoring recreational water at both ocean and sound-side beaches in Carteret County. Sites along our shores are tested weekly from April 1 to September 30, twice a month in October, and monthly between November and March. Testing is done to determine the levels of *enterococci* bacteria which do not cause illness itself, but its presence is closely correlated to the presence of other disease-causing organisms. If levels exceed EPA standards, the Water Quality Program posts swimming advisories and continues to test the area daily until levels come down. Bacteria levels can go up due to human waste in some cases, but can also be caused by other sources like high populations of waterfowl in an area, or waste from other animals.

In the past two to three years two swimming areas near marinas have been closed for extended periods, and currently an area of ocean-side beach in Emerald Isle has been closed since Hurricane Ophelia, August 2005, to allow for pumping of storm water out of flooded areas.

Wastewater lift stations and wastewater treatment plants have also caused closures of local creeks and sounds due to accidental spills of untreated sewage into the waters.

Heavy rains and hurricanes often cause increased bacterial levels in ocean waters due to increased storm water run-off. Also, failing private and commercial septic systems can result in untreated wastewater flowing into nearby waters. According to a report issued in 2001 by the NC National Estuarine Research Reserve, "Septic system failures are a concern for the community as a whole. . . . Educating homeowners about appropriate septic system practices is essential to overall environmental and public health in coastal North Carolina." Figures released in that report estimate that about 11,614 households (30.4%) in Carteret County are on a sewer system for wastewater disposal, while 26,141 households or 68.44% report septic system usage.

The NC Recreational Water Quality Section has gone on record to say that our coastal waters are generally clean, and that continual monitoring will help ensure the public's health. As our county continues to grow, the community will need to work even harder to monitor and protect the quality of the recreational waters that we all enjoy.

## **Drinking Water**

Ground water is the principal source of drinkable water in coastal North Carolina. The source of most of the ground water for Carteret County comes from wells drawing from the Castle Hayne aquifer. This source runs at a depth of 200 to 500 feet underground, stretches from New Jersey southward into southeast North Carolina and is the most productive aquifer in the state.

Recent Water Quality Reports from the Town of Morehead City, Merrimon and North River areas show that those water systems are currently meeting or exceeding all Federal and State requirements for drinking water. The reports also describe the Source Water Assessment Program that the NCDENR Public Water Supply conducts. SWAP rates the susceptibility of our

source wells to PCS's – Potential Contaminant Sources. The wells serving Morehead City have a susceptibility rating of "Moderate" and "Lower."

EPA sets regulations limiting the amount of certain contaminants in water provided by the public water system. As water travels over the surface of land or through the ground, it can acquire naturally occurring minerals and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include: Microbes, inorganic compounds, pesticides and herbicides, organic chemicals and radioactive contaminants. Town water systems must constantly monitor levels of these substances.

Keeping our ground water safe and drinkable is a high priority. As our population grows over the next several decades, we will need to watch that we do not overuse our supply and create water shortages like the ones experienced in other more developed areas of the state.

Families that get their drinking water from a well face unique challenges. They must be sure their wells are in good repair; that it is in a good location away from sources of possible pollution; that they be aware of the soil type the well sits on and that the well is protected at the ground surface; and finally, have annual water testing by a certified lab.

The local Environmental Health Division of the Health Department is the agency to be contacted before any well construction or repairs are begun. The local NC Cooperative Extension office also has written materials and guidelines helpful to homeowners with wells.

## **G) COMMUNITY ORGANIZATIONS**

### **Spiritual Community**

Carteret County is fortunate to have an active, involved church community.

There are approximately 150 churches in Carteret County representing many denominations where individuals and families can worship together. Most of the churches have active youth programs, and both adults and children are involved in many faith based outreach programs locally and world-wide.

Churches fill an important role by opening their doors to scouting programs, support groups and organizations that are in need of a central meeting place for their members. Fellowship halls provide short term housing to student groups and other volunteer groups that come in to the county to work on special work/mission projects. Many churches offer playgroups, mother's day out, and certified preschool and pre-kindergarten programs.

Many churches contribute money and volunteers to help support important community assistance programs. The Hope Mission Soup Kitchen is a church and privately supported community service which provides free, hot meals and monetary assistance to persons in need. Martha's Mission Food Cupboard is another public and church supported community service which provides emergency food and household necessities to those who qualify.

Habitat for Humanity is another successful community program that helps qualifying families finance and build homes. A coalition of local churches and volunteers initiated and sustain this vital project.

Several of the churches in Carteret County have their own vehicles and trailers equipped, and ready to respond to hurricane and other emergency follow-up needs both in our county and out-of-state. Church teams were making weekly trips down to Louisiana and Mississippi after Hurricane Katrina hit the Gulf Coast during the summer of 2005.

There is also a Salvation Army unit based in Morehead City which, in the past few years, has been invaluable to our citizens, providing food and supplies to areas hard-hit by damaging hurricanes and flooding. They also mobilized many volunteers to help in Hurricane Katrina clean-up efforts.

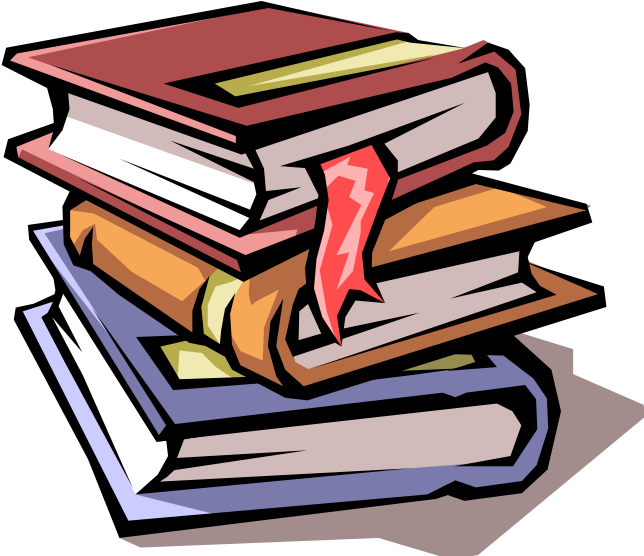
### **Civic and Community Groups**

A wide choice of civic and community organizations representing many areas of interest are available to adult citizens. Civic organizations, travel clubs, sporting interests, theatre groups, antique car club, newcomers clubs, garden clubs, Civil War Roundtable, Izaak Walton League, stamp and coin clubs, singles group, Coast Guard Auxiliary, Civitan Club, Christian Men's Group, Elks, Coastal Stogies, Lions Club, Optimists, Carteret Writers Club, American Legion, Toastmasters, Duplicate Bridge, Council for Women, and a women's investment group, Blue Chip Belles are just a few of the types of organizations available to interested individuals.

Youth programs, other than scouting, sports and church groups are scarce. In the comment section of the Community Health Assessment, there were frequent recommendations that the county provide more free or low cost activities for children and adolescents. A few of the comments: "I think the communities decision making is not based around our youth enough....There are not enough child based activities available to all of us." "The community needs more interactive, fun places for our children and teens." "We need affordable recreational activities for minors, both during school year and summer break." "Recreational centers are not open on weekends."

Opportunities for children and adults to become involved in their community certainly add to the overall quality of life and health.

# Community Health Resources



## **A) PRIVATE HEALTH CARE RESOURCES**

### **Health Resources**

Carteret General Hospital is a key element in the Carteret County healthcare system. The hospital is a not-for-profit organization which encompasses the Hospital, Taylor Extended Care Facility, Carteret General Hospital Imaging Center, Eastern Carteret Medical Center, Raab Specialty & Cancer Care Center, Carteret Home Health Services, Hospice of Carteret County, Allwell Wellness Program and Carteret General Hospital Foundation.

Services offered by Carteret General hospital include acute care, diagnostic and outpatient services, a cancer center, imaging center, emergency department and birthing center. There is a staff of approximately 900 employees.

There is an active staff of approximately 56 physicians, 45 consulting physicians and 12 visiting/courtesy physicians covering a comprehensive range of specialties which include; anesthesiology, cardiology, family practice, gastroenterology, gynecology and obstetrics, endocrinology, internal medicine, nephrology, rheumatology, neurology, oncology, ophthalmology, orthopedics, pediatrics, psychiatry, pulmonary medicine, emergency medicine, urology, plastics, vascular, general and trauma surgery.

Carteret General Hospital has 117 beds to serve the people of Carteret County. On average there are 87 inpatients each day and the hospital performs over 410 surgeries and 4,000 outpatient tests or treatments each month. The emergency department reports approximately 35,400 visits in fiscal year 2005. 682 babies are delivered annually in the Brady Birthing Center.

The AllWell program offers many community and industrial health and education programs. The hospital and Carteret County Health Department partner to provide this program to Carteret County employers.

Taylor Extended Care Facility has 104 residents and provides skilled nursing services for residents who require long-term care.

Carteret Home Health Service and Hospice of Carteret County are part of Carteret General Hospital. These services allow continuity of care for patients as they move from hospital to home.

The following chart represents an approximate number of health care providers in Carteret County for 2004.

**Table 5**

Non-Federal Physicians	91
Primary Care Physicians	44
Family Practice	18
General Practice	3
Internal Medicine	10
Obstetrics/Gynecology	9

Pediatrics	4
Physicians, Other Specialties	47
Dentists	38
Dental Hygienists	40
Registered Nurses	434
Nurse Practitioners	19
Certified Nurse Midwives	0
Licensed Practical Nurses	183
Chiropractors	10
Optometrists	9
Pharmacists	53
Physical Therapist	20
Physician Therapist Assistants	10
Physician Assistants	17
Podiatrist	3
Practicing Psychologists	6
Psychological Associates	0
Respiratory Therapists	30

Carteret County also has 6 Emergency Care Centers to support our community. These centers are accessed by non-residents and residents of Carteret County. Since Carteret County is a resort community these emergency care centers ultimately see an increased number of patients during the summer months. They are as follows:

Beachcare Urgent Care Center  
5059 Highway 70  
Morehead City, NC 28557  
808-3696

Carteret Urgent Care Center  
3104 Arendell Street  
Morehead City, NC 28557  
247-0770

ECIM Urgent Medical Care  
906 W. B. McLean Drive  
Cape Carteret, NC 28584  
393-9007

Med Center I  
600 Morehead Avenue  
Atlantic Beach, NC 28512  
247-2464

Urgent Care of Morehead City  
3722-A Bridges Street  
Morehead City, NC 28512  
726-1116

Western Carteret Medical Center  
718 Cedar Point Blvd.  
Cedar Point, NC 28584  
393-6543

The county also has many support groups and educational classes. This information may be accessed through Carteret General Hospital web site at [www.ccggh.org](http://www.ccggh.org) (calendar of events). Some of the programs offered include information on Congestive Heart Failure, Total Joint Excellence, Chemotherapy, Breast Cancer, Ostomy Support, Freedom from Smoking, Advance Care Planning, Prostate and Colon Screenings.

The local paper is also a good resource of the many support groups and educational classes offered throughout the county. Some of the listings offered include: Chrohn's/Colitis support, Bypass, Diabetic and Suicide support groups.

## **B) PUBLIC HEALTH PROGRAMS**

### **Community Based Services**

Carteret County Health Department services are delivered at the health department, in the home and followed up in the community. Occasionally these services consist of community members meeting to identify service gaps or community education needs.

In the Post Partum/Newborn Care Program, a registered nurse will visit newborns and their mothers in the home within 2 weeks of hospital discharge. The purpose of this visit is to provide education and support to the new mother. Resource information and referrals may also be offered during this visit.

High risk pregnant women are also visited by a registered nurse in the patient's home. Nurses provide education, counseling, assessment, clinical and emotional support. These women are referred by their physician and must meet specific high risk eligibility. Conditions classified as high risk pregnancy could include diabetes, hypertension or pre-term labor.

Community based services also include Sudden Infant Death Syndrome (SIDS) counseling. A trained SIDS counselor is available for families who have lost a child from SIDS. Community presentations such as "Back to Sleep" are offered to families and child care providers. These presentations cover prevention measures to reduce the incidence of SIDS.

Every quarter the Community Child Fatality Prevention Team meets to review the deaths of children, birth to 18 years of age in Carteret County. The goal of this team is to look for ways to prevent future fatalities among this population.

### **Case Management**

Case Management services are services provided by a care coordinator from the Carteret County Health Department who is assigned to a family to help identify and find services and resources.

Child Service Coordination is a program for families with children from birth to 5 years of age at risk for developmental delay, those with a diagnosed condition or special need. Children can be referred by any source. The family is assigned a child service coordinator who through home visits, telephone calls and other personal contacts will identify programs, services and other resources that meet the families' needs. These coordinators will also provide developmental screenings.

### **Maternity Care Coordination**

This program is for pregnant women who qualify for Medicaid. These women are assigned to a care coordinator who will assist in arranging for services that are appropriate. They will also assist with meeting special needs such as prenatal care, transportation, adequate housing, education, substance abuse counseling, smoking cessation, labor and delivery education as well as preparing for a new baby. This preparation includes breast feeding information and referrals to other resources and or information.

### **Child Health Program**

The Child Health Program encompasses numerous services for young and school age children. Assessment and physicals are performed for kindergartners. Primary care services are also available to school age children when they are ill. This program also assists and refers to headstart and day care availability.

The Health Department also offers services to children in the community who are at greatest risk for lead poisoning. Blood tests can be done to determine a child's blood lead level. Screening is recommended at 12 and 24 months of age. Children up to 6 years of age may also be tested. This program also offers follow up services for children with elevated blood levels which may include a home visit with a nurse and an environmental health specialist. The nurse may make a referral for nutritional counseling, developmental testing and medical follow up. The environmental health specialist can assess the home environment for lead hazards. Health checkups include a routine physical exam, lab tests, growth measurements, developmental screenings, hearing and vision checks coupled with immunizations. Children should receive well child check ups at the following ages:

- ✓ 2 weeks
- ✓ 2 months
- ✓ 4 months
- ✓ 6 months
- ✓ 9-12 months
- ✓ 15 months
- ✓ 18 months
- ✓ 2 years
- ✓ Then every year through age 5
- ✓ Then every 3 years for children 6 years and older

Carteret County has an excellent immunization rate. According to immunization registry Carteret County has a 90% rating. Childhood immunizations are to prevent diphtheria, whooping cough, tetanus, polio, measles, mumps, rubella, meningitis, hepatitis B and chicken pox. These

are available through the Carteret County Health Department. Immunizations are available daily without an appointment. The Health Department also encourages college age students living in dorms to have the meningococcal vaccine.

The Carteret County Health Department also provides vaccinations for adults: flu, pneumonia, Hepatitis B and tetanus.

### **Women’s Health Services**

Carteret County Health Department offers a wide range of services for women. These services include medical care, education and support.

The Maternal Health Services program is available to uninsured women. Services include a physical examination by a Family Nurse Practitioner, education and referrals if follow up services are necessary.

The Family Planning and Women’s Preventive Health Services program provides options for women and men to protect themselves from unwanted pregnancies. This program also identifies conditions that affect reproductive health, such as sexually transmitted diseases, breast and cervical cancer.

The Breast and Cervical Cancer Control Program targets women 50-64 years of age. This program offers breast and cervical cancer screenings.

### **Women, Infants and Children Program (WIC)**

WIC is a federally funded program that provides healthy supplemental foods and nutritional counseling for low-income pregnant women, new mothers, infants and children under age five. This program provides nutritious foods to supplement diets, education on healthy eating and referrals for additional healthcare services.

The criteria for eligibility to the WIC program include low income pregnant women or low income women who have given birth within 6 months. Infants and children up to age 5 of low income families are also eligible.

### **Dental Health Program**

This program provides a mobile dental clinic, “Miles of Smiles.” The mobile clinic travels to elementary schools within Carteret County, providing dental care to children 0-17 years of age. The program strives to produce short-term and long-term improvements while providing a quality dental experience for all participating children. Services provided include dental examinations, cleaning, x-rays and fluoride, dental sealants, fillings and extractions. Children 0-17 enrolled in the North Carolina Medicaid or Health Choice programs qualify for services.

### **Communicable Diseases**

The health department provides childhood immunizations to prevent diphtheria, whooping cough, tetanus, polio, measles, mumps, rubella, meningitis, hepatitis and chicken pox. Also available is the flu, pneumonia, Hepatitis B and tetanus vaccines.

The Sexually Transmitted Diseases (STD)/HIV Program provides counseling, testing and education about sexually transmitted diseases such as gonorrhea, chlamydia, syphilis, herpes and genital warts. Services are available to all persons without regard to income or place of residence.

The International Travel Clinic provides assessments, education and offers vaccines to international travelers for the purpose of protecting them while in other countries and protecting our community when these travelers return from high risk countries.

### **Public Health Preparedness & Response**

Emergencies are classified in many different ways, some are weather related and others are technical or man-made. Since Carteret County is a coastal community, weather related emergencies such as hurricanes are taken seriously and the county is committed to preparation.

Technical or man-made emergencies such as hazardous spills, utility system failures, ship or ferry accidents and acts of terrorism are not predictable but require communities to have plans in place that can be activated when necessary. Carteret County has those plans in place.

The Carteret County Health Department has developed plans, procedures and guidelines for how we should protect individuals during emergencies and disasters that affect our county. Planning for an emergency requires working through events that could disrupt public services such as electricity, water, and transportation or those events that threaten the health of citizens.

### **Health Promotion/Education**

The Health Education/Health Promotion Program in the Carteret County Health Department provides health information to patients and the public at large. This program also promotes change in policies and the environment that will encourage local citizens to make healthier lifestyle choices. Policy and environmental changes mainly focus on ways to increase physical activity, improve nutrition and encourage smoking prevention and cessation.

Some of the Health Education/Health Promotion Programs are as follows:

- Folic Acid Education is offered to groups and individuals with materials provided by the NC Folic Acid Council. The goal of this program is to encourage all women of child bearing age to take a daily multi-vitamin containing 400 mcg of Folic Acid as a way to prevent certain birth defects and to enhance over-all health.
- Take 10! is a K-5 classroom based physical activity program that gives elementary school teachers ways to include physical activity in their regular lesson plans.
- Winners Circle – This program is designed to help identify foods that are both nutritious and delicious when eating away from home.
- Child Safety Seat information is also available at the Carteret County Health Department. The Health Department has a certified child safety technician who works with Buckle Up and Safe Kids in Carteret County Coalition to do child safety seat check-up events.

## **Public Information**

In cooperation with Time Warner Cable TV-10 in Newport, the Carteret County Health Department produces a monthly public service television show called “Lookout for Your Health.” This program covers an array of health issues and topics.

## **Environmental Health**

The Environmental Health team is responsible for monitoring conditions within the community that could present a threat to the health and safety of the public. The goal is to maintain a healthy environment.

These specialists work in areas of water quality protection, siting private wells, wastewater treatment and disposal of solid and hazardous waste management. They are also responsible for food and lodging inspections, permits to community programs such as pool permits, lead investigations and indoor air education.

There are approximately 50,000 private, irrigation, community and municipal wells in Carteret County. During the 2004 calendar year the following is a synopsis of services rendered by the Environmental Health team.

**Table 6**

ON-SITE WASTEWATER PROGRAM	
Improvement Permits Issued	731
Construction Authorization Permits Issued	797
Repair Permits Issued (existing systems)	116
Operation Permits Issued	516
Site Evaluations	1400
Site Visits	3819
Applications Received	1724
Improvement Permits Denied	138
Re-inspections of existing systems and or mobile park re-inspections	297
Complaint Investigations	147
Test Wells Monitored	78
WATER SUPPLIES	
Consultative Visits and or Inspections	44
Bacteriological Samples Collected	169
Other Samples (Chemical/Pesticide/Petroleum)	36
Complaint Investigations	13
SWIMMING POOL PROGRAM	
Number of Pools	253
Complaint Investigations	3

There were 859 quarterly inspections during July 2004-June 2005.

Food and lodging establishments under inspection are as follows:

**Table 7**

<b>Type of establishment</b>	<b>Number of establishments</b>	<b>Inspections per year</b>
Restaurants	219	876
Food Stands	31	124
School Lunchrooms	16	64
Schools	25	50
Meat Markets	20	80
Institution Food Services	6	24
Child Care Centers	24	48
Adult Care Centers	2	2
Motels	48	48
Bed and Breakfast Homes	9	9
Bed and Breakfast Inns	4	8
Local Confinement	1	1
Summer Camps	1	1
Residential Care Homes	10	10
Nursing Homes	8	8
Hospitals	1	2
Pushcarts	1	4
Catered Elderly Nutrition Site	1	1
Limited Food Service	5	20
Temporary Food Establishment	26	26
<b>Total</b>	<b>458</b>	<b>1406</b>

Pest Management is another division of the Health Department. Animal and Vector Control (mosquito spraying) are the two major areas of responsibility.

Here is a synopsis of services provided in 2004:

Animal Control

Total Number of Animal Control Calls	3435
Premises Visited	2861
Animals Impounded	1757
Traps Distributed	233
Bite Cases	180
Specimens Sent to State Lab	22
Cruelty/Abandonment Cases	359
Permit/Citations Issued	23
Follow-Up Investigation	117
Positive Rabies Cases	6

Although the complete 2005 report is not available, by mid-year, the department had investigated 259 reports of possible animal abandonment or cruelty.

Vector Control

Requests for Mosquito Spraying	114
Request No Spraying	10
Dead Bird Calls for West Nile Virus	27

**C) OTHER COMMUNITY HEALTH PROGRAMS**

**Alternative Care**

The Whole Health Resource Network (WHRN) was created in 1995. Their goal is to be a support group and to increase community education and awareness on options available for a healthy lifestyle. Some of the options listed in their directory include acupressure, acupuncture, aestheticians, aromatherapy, athletic training, massage therapy, support groups, counseling and consultation services. This network puts out a directory and is available to the public.

**Additional Information on Mental Health, Developmental Disabilities, and Substance Abuse (MH/DD/SA) Services in Carteret County**

Citizens concerns about mental health services were voiced through the Community Assessment Survey. The county is in the midst of the transition of moving mental health services from a community mental health center to a local management entity and contracted providers. The \$28 million state budget shortfall within the Department of Health and Human Services adds more uncertainty to an already difficult situation.

**Substance Abuse**

There are five substance abuse assessment and treatment providers in Carteret County, all in Morehead City. In addition, Onslow Carteret Behavioral Healthcare Services which is still in the transition stage can refer persons needing substance abuse services to private providers or offer in-house services if no private providers are available. Persons needing detox or in-patient substance abuse treatment are referred to services out of the county. Alcoholics Anonymous and Narcotics Anonymous groups are both available in the community to aid in the recovery process.

It is difficult to assess the number of persons in the county in need of substance abuse services, but the following sources provide some general observations and data on prevalence of drug use.

In April, 2003 the National Drug Intelligence Center (NDIC) published the “North Carolina Drug Threat Assessment.” NDIC states that crack cocaine is likely to remain the biggest illicit drug threat. Marijuana will continue to be the most available and most abused drug in the state. Methamphetamine is spreading from the western part of the state to central and eastern portions, and MDMA and OxyContin abuse will likely increase. Heroin is typically available in more urban areas of North Carolina.

The NC Department of Justice web-site has crime statistics for the state and counties. In 2004, Carteret County had the following drug-related arrests:

Sale or Manufacture of Cocaine	23
Sale/Manufacture of Marijuana	15

Sale/Manufacture of Other Dangerous Drugs	1
Possession Cocaine	34
Possession Marijuana	55
Possession of Synthetic Narcotics	4
Possession of Other Dangerous Drugs	4
Driving Under the Influence	742
Disorderly Conduct/Drunk and Disorderly	141

Another source of information of prevalence of drug use in our area is from the Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies. Following are some of the results from their “National Survey on Drug Use and Health, 1999, 2000 and 2001.” Data for the US, NC and Eastern NC area are given.

**“Alcohol Use in Past Month, Binge Alcohol Use in Past Month, and Perception of Risk among Persons Aged 12 and Over”**

	<i>Alcohol Use</i>	<i>Binge Alcohol Use</i>	<i>Perception of Risk</i>
US	47.2%	20.70%	45.99%
NC	38.49%	17.43%	46.89%
Eastern NC	36.33%	18.60%	47.06%

**“Marijuana Use in Past Month, Average Annual Rate of First Use and Perception of Risk”**

	<i>MJ Use in Past Month</i>	<i>Average Annual Rate</i>	<i>Risk Perception</i>
US	5.09%	1.59%	43.42%
NC	5.72%	1.57%	44.12%
Eastern NC	4.77%	1.59%	47.25%

**“Any Illicit Drug Use in Past Month, Any Illicit Drug Use Other Than Marijuana in the Past Month and Cocaine Use in Past Year among Persons Aged 12 and Older”**

	<i>Illicit Drug Use</i>	<i>Any Use Except MJ</i>	<i>Cocaine Use</i>
US	6.68%	2.84%	1.72%
NC	7.43%	2.78%	1.64%
Eastern NC	6.60%	2.68%	1.67%

In April, 2004 the National Survey on Drug Use and Health published an article, “Graduated Driver Licensing and Drinking among Young Drivers.” The main findings were: 1.) During the years of 1999 to 2001, about 20% of young drivers aged 15 to 17 were binge drinkers and 6% were heavy drinkers. (Binge alcohol use is defined as drinking 5 or more drinks on the same occasion on at least 1 day in the last 30 days. Heavy alcohol use is defined as drinking 5 or more drinks on the same occasion for 5 or more days in the past 30 days.) 2.) In states with the most restrictive driver-licensing laws, young drivers had lower rates of heavy drinking, and lower rates of driving under the influence of alcohol. North Carolina is considered “Moderately Restrictive,” or second most restrictive out of four rankings in our graduated licensing laws.

**Mental Illness**

The National Alliance for the Mentally Ill in North Carolina (NAMI) states that approximately 1.6 million persons in our state have a mental illness. Early diagnosis and treatment are vitally

important to reduce symptoms and improve quality of life. There is a local affiliate of NAMI in Carteret County that provides support and education to families and the community. Atlantic House is a local psychosocial treatment program that provides a place for job training and socializing for persons with chronic and severe mental illnesses. Atlantic House has had to move several times over the years, but is planning on building a permanent facility with the help of donated land and a community matching grant.

### **Developmental Disabilities**

There are services for those with developmental disabilities. Five licensed homes provide living quarters for adults. Station Club Enterprises in Morehead City is a state licensed adult developmental vocational program where the clients learn to build and sell outdoor furniture. The Club also has an annual sale of plants grown from its own greenhouse, and does other contracted work for area businesses. Staff and community volunteers help organize a Special Olympics event once a year.

Advocates for expanded and improved mental health services are understandably concerned about the progress of the reform/transition process and the possible loss of funds in an already under funded system. This issue will remain of prime importance in Carteret County as it is throughout the entire state.

### **Onslow Carteret Behavioral Healthcare Services**

Onslow Carteret Behavioral Healthcare Services (OCBHS), is a Nationally Accredited public agency that serves individuals in need of mental health, developmental disabilities or substance abuse services. Their goal is to assure accessible, quality and affordable services for those in need.

A vast array of substance abuse services are available for adults, adolescents, children and families affected by substance abuse. These services include:

- Individual, Group and Family Counseling
- Treatment Alternative to Safer Communities (TASC)
- Non-Hospital Medical Detoxification Unity
- Women's Services
- Alcohol and Drug Education, Traffic School/Driving While Impaired

Several services exist for individuals with developmental disabilities of all ages. They include:

- Identification and diagnosis
- Developmental Day Center
- Outpatient services through the mental health component
- Parent/caregiver training
- Vocational/community living skills training for adults
- In-home respite care services, camping and psychological services
- Early Childhood Intervention Program
- Community Alternative Program for persons with mental retardation or developmental disabilities

Mental Health Services exists to restore individuals who experience mental illness to their highest level of functioning. Services provided are as follows:

- Psychological Assessment
- Psychotherapy
- Supportive Counseling
- Sex Offender Specific Treatment
- Psychosocial Rehab

### **Child Care in Carteret County**

Much of the following data was supplied by Carteret County Child Care Resource and Referral (CCR&R), also known as “Smart Start.” This agency offers information to parents looking for childcare and provides technical assistance and training to childcare centers.

CCR&R states in its’ most recent “Child Care Impact on Carteret County,” that child care is an important small business by employing approximately 220 teachers, that child care businesses’ purchases and wages re-circulate in the local economy, child care enables parents to work, and that quality child care has shown to increase academic achievement in children.

The agency states that they are seeing two main problems in our county. Number one is that openings for infants and toddlers are hard to find because of budget restraints. Center directors and home child care owners are not able to offer more openings for this age group.

The second problem is the affordability of child care services. As of December, 2005, there were 200 families on a waiting list for the child care assistance program administered by the Department of Social Services. Many parents working at lower wage jobs may be paying one-third to one-half their income to cover childcare costs.

#### Children and Families of Carteret County

- Children age birth to five in 2003 -- 3,529
- Families with children age birth to five in 2003 -- 2,940
- Children age birth to five in single parent families 2003 – 732
- Birth to teen parents in 2003 -- 81
- Children age birth to six reported as abused and/or neglect in 2003 -- 406
- Children age birth to six with substantiated abuse and/or neglect in 2003 – 181

(this was taken from the Early Childhood Needs and Resources Report 2003, FPG Child Development Institute, UNC)

#### Child Care Resource & Referral (CCR&P): Quick Facts

- 36 licensed child care programs
- The average weekly cost of child care in centers ---\$123.50
- The average weekly cost of child care in family child care home (FCCH)-----\$106.00

#### Outcomes met

- 75% of centers received technical assistance
- 85% of FCCH received technical assistance
- 70% of childcare facilities receive 3 stars or more by June 2004

- Improve the quality of child care  
No one has a greater impact on the quality of care than the people who work with children every day. The CCR&R provide ongoing professional development opportunities to child care providers and staff. When CCR&R provide intensive technical assistance to providers, help create incentives for education, and advocate for better compensation for providers, CCR&R improve the quality of care for all children.
- Document child care needs  
The CCR&R gather information to better understand family needs. The CCR&R is a major source of information about the local supply and cost of childcare. The CCR&R is able to track trends about the changing needs of families.

Since 2001, North Carolina child care programs in every county have been able to participate in a voluntary rating system. Based on a program's performance in three areas, it can earn one to five stars which are posted on the child care license.

The star ratings are determined by three components:

**Program**

- What do the children do each day?
- Do their activities encourage learning?
- Does each teacher work with small, manageable number of children?

**Staff Education**

- What is the education level of staff?
- What is their understanding of child development?
- What is their knowledge of effective learning activities?

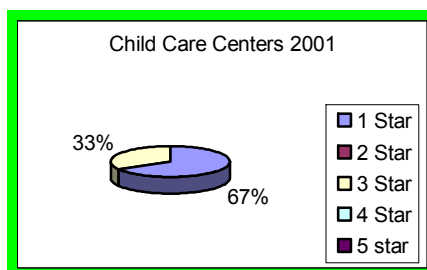
**Compliance**

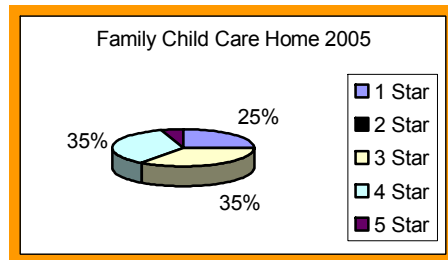
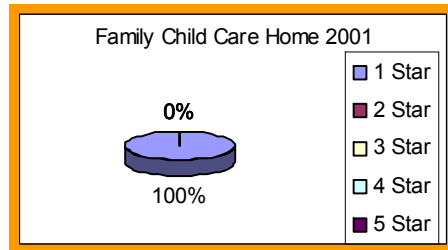
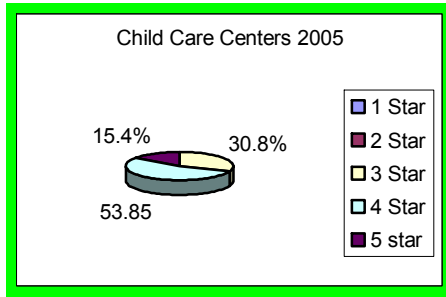
- Is this a safe and healthy place for the children?
- Does the program follow state rules and regulations?
- Have there been significant charges or complaints by parents?

Each component earns 5 points. Adding the totals in each area leads to the number of stars:

- 5-7 points will earn program 2 stars
- 8-10 points will earn program 3 stars
- 11-13 points will earn program 4 stars
- 14-15 points will earn program 5 stars

**Figure 6**





**D) BARRIERS TO HEALTH CARE ACCESS**

**Access to care**

Access to healthcare is critical to a healthy community. Access to a variety of health care services is also important in preventing and early detection of disease. Individuals who live at or below the Federal Poverty Level and those who lack health insurance experience greater difficulty in accessing effective healthcare. This lack of access often results in health conditions progressing to advanced or chronic stages.

North Carolina, Carteret County-Level estimates of Uninsured (Shep Center 2004):

Aged 0-17		Aged 18-64		Aged 0-64	
Percent	Number	Percent	Number	Percent	Number
11.1%	1,352	23.3%	9,039	20.4%	10,391

2004 State rate uninsured 17.5% Carteret County ranks, 63 in State.

Residents over the age of 64 who are on Medicare and do not qualify for Medicaid services have trouble purchasing all of their medications. Although the new Federal Prescription Program will begin to be implemented in 2006, its impact will not be known for some time. Those with only minimal medical insurance and the underinsured, often have difficulty accessing needed medical services and often do not have assistance with mental health or dental health care.

The population/physician ratio in 2004 was 672. Many general practice and family practice physicians refer their patients to specialists outside of the county. The population/dentist ratio for 2004 was 1,608. Per capita personal income for Carteret County in 2002 was \$27,713. Per capita personal income for NC, 2002 was \$27,785. The percent of the Carteret County population in poverty in 2000 was 10.7% based on a population of just under 60,000.

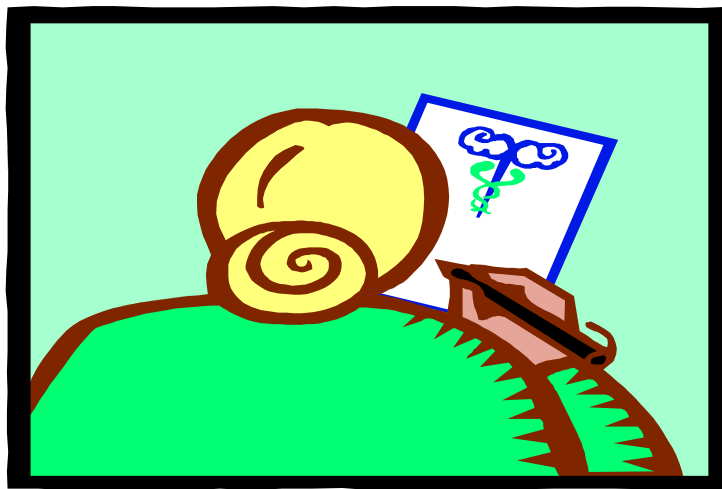
Health Care Services in Carteret County are located primarily in the Morehead City/Beaufort area. There is one hospital and 15 jurisdictional EMS units within the county. Lack of a consolidated county-wide 911 often creates delays in receiving timely emergency medical services and often fosters competition, not coordination among the EMS units.

The Carteret County Health Department is located in Morehead City and although it offers a variety of health care services, there are no satellite or outreach clinics for the more rural areas. Clinical services are offered between the hours of 8:00 to 5:00 Monday thru Friday. There are no evening or weekend clinical services available.

Transportation also has an impact on access to services within the county. The only general public transportation services is taxi cab services in the Beaufort, Morehead City and Atlantic Beach areas. There is a countywide transportation service, "Carteret County Area Transportation System (CCATS) which does not provide emergency medical transportation or escort service but does provide Paratransit and Community Transit services. Paratransit services are available to agency-sponsored passengers for human-services related transportation. Agencies served by CCATS include the County Department of Social Services, Coastal Community Action, Leon Mann Enrichment Center, Station Club Enterprises, Atlantic House, and the Health Department. Community Transit services are available to the general public and is a fare-based service operated on a space-available basis in cooperation with the Paratransit service.

The Hispanic population in the county is growing and as of the 2000 Census reflected 1.7% of the total population. Results from the 2002 and 2003 North Carolina Behavioral Risk Factor Surveillance System (BRFSS) study indicates that Spanish-speaking Hispanics represent a distinct demographic population, characterized by young age and very low levels of education and income. They constitute a high-risk group, with a combination of limited access to health care, limited use of preventive services, and poor health status. This study concluded that the elevated risks of fair/poor health, lack of adequate nutrition, low level of leisure-time physical activity, and lack of health insurance among Spanish-speaking Hispanics in the State call for public health action to remedy negative health outcomes.

# Community Health Status



**A) MAJOR CAUSES OF DEATH**

The following represents the ten leading causes of death for Carteret County including the total number of deaths and the age-adjusted death rates compared to North Carolina for 2000-2004. mortality\*\*

**Table 8**

Rank	Cause of Death	Total Number of Deaths Carteret Co. 2000-2004	Age-Adjusted Death Rates per 100,000 for Carteret County	Age-Adjusted Death Rates per 100,000 for North Carolina
1	Heart Disease	979	258.0	233.9
2	All Cancers	853	213.6	197.4
3	Cerebrovascular Disease	248	65.6	67.4
4	Chronic Respiratory Disease	167	42.4	46.0
5	Alzheimer's Disease	112	31.4	25.5
6	Other Unintentional Injuries	103	32.8	24.8
7	Diabetes	86	22.2	27.5
8	Pneumonia and Influenza	61	17.0	23.8
9	Suicide	57	19.1	11.6
10	Motor Vehicle Injuries	56	19.2	19.6

\*\*The leading causes of death for North Carolina are as follows:

- |                                |   |
|--------------------------------|---|
| 1. Heart Disease               | 6. Other Unintentional Injuries                 |
| 2. Cancer                      | 7. Alzheimer's Disease                          |
| 3. Cerebrovascular Disease     | 8. Pneumonia and Influenza                      |
| 4. Chronic Respiratory Disease | 9. Motor Vehicle Injuries                       |
| 5. Diabetes                    | 10. Nephritis, Nephrotic Syndrome and Nephrosis |

When looking at mortality rates for Carteret County there are some differences between males and female. Males have higher rates than females for heart disease, cancer, chronic lower respiratory disease, septicemia, nephritis, nephrotic syndrome, nephrosis, suicide, homicide, unintentional motor vehicle injuries and all other unintentional injuries.

Males also have a higher rate of heart disease, cancer, all other unintentional injuries and suicide over males in North Carolina.

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\*\* Data Source: North Carolina Center for Health Statistics

There are also differences between whites and minorities. Minorities from 1993-2003 had a higher rate than whites for heart disease, cerebrovascular disease, diabetes, pneumonia, influenza, chronic liver disease, cirrhosis, nephritis, nephritic syndrome, and nephrosis. While whites had a higher rate of cancer, chronic lower respiratory diseases, septicemia, unintentional motor vehicle injuries, suicide, and all other unintentional injuries over minorities.

When comparing whites in Carteret County to the State whites have a higher rate of:

- Heart disease
- Suicide
- Cerebrovascular Disease
- Diabetes
- Chronic Liver Disease and Cirrhosis
- Cancer

When comparing minorities in Carteret County to the state minorities have a higher rate of:

- Heart disease
  - Diabetes mellitus
  - Chronic liver disease and cirrhosis
- (See Appendix C-F)

**Carteret County Medical Examiner Deaths by Manner/Means in Carteret County in 2000, 2001 and 2002 from NC OCME Data**

<u>Year</u>	<u>Total</u>	<u>Natural</u>	<u>Homicide</u>	<u>Suicide</u>	<u>MV</u>	<u>Drowning</u>	<u>Fall</u>	<u>Fire</u>	<u>Other</u>
2000	67	33	3	13	7	2	1	0	8
2001	75	38	0	16	5	0	6	2	8
2002	83	38	1	12	10	1	5	0	16

**Carteret County Suicide Deaths by Means, 2000-2002, from NC OCME Data**

Total – 41    Hanging/Strangulation – 6    Handgun – 25    Other – 10

**Infant Mortality**

According to the State Center for Health Statistics for 1999-2003 infant death rates per 1,000 live births (<1 years), Carteret County has a total death rate of 9.0 per 1,000 that is over the state rate of 8.5 per 1,000. Carteret County is also above the State rate for White infants and Minorities infants, Whites die at a rate of 7.1 per 1,000 compared to the State rate of 6.2 per 1,000, while minorities death rate of 25.5 per 1,000 is all most twice the rate of the State of 14.4 per 1,000\*

**Child Mortality in Carteret County**

Infant and child deaths from 2000-2004 in Carteret County were due to the following causes according to the State Center for Health Statistics:

**Table 9**

<b>Total Deaths =52</b>	<b>Number</b>
Birth Defects	8
Perinatal Conditions	12
SIDS	6
Illnesses	12
Motor Vehicle	8
Drowning	2
Other Injuries	2
Suicide	1
All Other	1

<b>Age Breakdown</b>	<b>Number</b>
1- 4	6
5-9	4
10-14	8
15-17	6

**Childhood Injuries**

Safe Kids, founded in 1987, is a network of organizations dedicated to preventing accidental injury. Safe Kids statistics show that despite declining numbers, accidental injury is still the leading cause of death for U. S. children from one to 14 years old, with children four and under accounting for 49% of these deaths. Infants are more likely to die from motor vehicle occupant injury and drowning than older children. Injuries are the second leading cause of hospitalization and the leading cause of emergency room visits among children under 14.

The primary risks for childhood injuries in NC, according to the NC Office of State Fire Marshall and Safe Kids North Carolina are motor vehicle, bike and pedestrian injuries, burns and scalds, choking and strangulation, poisoning and drowning.

In the fall of 2005, Safe Kids in Carteret County was created to provide education and direct services to reduce injury in the community. The membership is composed of police departments, Coast Guard, emergency services, fire departments, Parks and Recreation, Health Department and businesses. Membership is open to all interested persons. Motor vehicle injury including proper child safety seat installation, water safety and bike safety are the focus of the local chapter.

The local Safe Kids plan includes hands on educational activities for children and families at car seat checks, bike rodeos, and water safety events through collaboration with other community partners. Through grants, Safe Kids in Carteret County will purchase child safety seats and bike helmets for local distribution.

**B) MAJOR CAUSES OF ILLNESS**

Heart Disease, Cancer, Cerebrovascular Disease, Diabetes and Asthma are the major causes of illness and hospitalization in Carteret County.

**Table 10**

## Heart Disease Hospitalization 1995-96\*

	Average Annual Hospitalizations	Hospitalization Rate	Average Annual Expenditures
North Carolina	106,058	146.1	\$1,458,369,296
Carteret County	1,001	172.7	\$13,677,583

## Cancer Incidence Rate per 100,000 Population 1998-2002\*\*

	Colon/Rectum		Lung		Breast		Prostrate		All Rates
	Cases	Rate	Cases	Rate	Cases	Rates	Cases	Rates	
North Carolina	19,021	48.3	27,103	68.0	32,228	147.1	26,073	151.2	440.5
Carteret County	194	50.8	327	82.4	332	163.9	347	188.6	512.8

## Stroke Hospitalization 1995-96\*

	Average Annual Hospitalizations	Hospitalization Rate	Average Annual Expenditures
North Carolina	26,686	36.8	\$293,782,679
Carteret County	239	41.1	\$2,312,426

**Impact of Diabetes in Carteret County:\***

<i>Indicator</i>	<i>Numbers</i>
Estimated Cases of Diabetes and Retinopathy 23% of People with Diabetes	1,120
Estimated Cases of Foot Lesions/Sores 8.9% of People with Diagnosed Diabetes	430
Lower Extremity Amputations per Year	20
Hospitalizations per Year Diabetes Main Cause	91

\* North Carolina Center for Health Statistics

\*\* North Carolina Cancer Registry, 2/2005

***Asthma Hospitalizations and Rates per 100,000\*\*\****

	All Ages Number	All Ages Rate	Ages 0-14 Number	Ages 0-14 Rate
Carteret County	113	186.5	47	501.9
NC	12,051	143.2	3,572	207.9

North Carolina Medicaid information on the number of claims paid by Medicaid during fiscal year 1997-98 for children under the age of 14 indicates that approximately 13 % of these children had asthma. Out of the 3,493 children enrolled in Medicaid in Carteret County, 659 had asthma.

When looking at the major causes of illness and hospitalization in Carteret County it is difficult to determine which ones can be prevented or reduced in severity. For illness and disease in older individuals one must look at hereditary, life style and environmental factors. It is important not to jump to conclusions about factors in our community that may contribute to high rates of a particular illness or disease. For example, high cancer rates that could be attributed to environmental factors may be diagnosed in individuals who have retired to our county from other states. On the other hand, the relationship between asthma and allergies to mold in humid, flood prone coastal communities is more specific to our county.

**Reportable Motor Vehicle Crashes on State-Maintained Roads in Carteret County, 2001 – 2003, from NC Crash Data, Highway Safety Research Center, UNC-CH**

<b>Year</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>TOTAL</b>
<b><u>Crash Severity</u></b>				
<i>Fatal</i>	7	13	12	32
<i>Disabling Injury</i>	36	25	29	90
<i>Evident Injury</i>	149	173	161	483
<i>Possible Injury</i>	315	364	302	981
<i>No Injury</i>	572	604	690	1,866
<i>Unknown</i>	37	50	51	138
<b>Total</b>	<b>1,116</b>	<b>1,229</b>	<b>1,245</b>	<b>3,590</b>

\*\*\*North Carolina Center for Health Statistics- Study No. 113

## **C) IMPACTS ON HEALTH AND QUALITY OF LIFE**

Quality of life is a broad concept that can include many characteristics of a community. The characteristics that will be briefly addressed in this section are public safety, availability of housing, transportation, and recreational resources.

### **Public Safety**

Local government law enforcement in Carteret County consists of 8 police stations and the Carteret County Sheriff's Department which serves as the law enforcement agency for all unincorporated areas as well for the municipalities of Bogue, Cedar Point and Peletier. The Sheriff's Department also serves civil court papers, provides courtroom security, manages the jail and works with the Teen Court program. The Department's crime clearance rates have been in line with statewide averages over the past several years.

The North Carolina Department of Justice published in August, 2005 a report called "Crime in North Carolina – 2004." Carteret County rates per 100,000 are as follows:

<u>Year</u>	<u>Index Crime Rate</u>	<u>Violent Crime Rate</u>	<u>Property Crime Rate</u>
2003	3183.3	226.4	2956.8
2004	3397.5	265.8	3131.7

The Index Crime Rate is a total of the violent and property crime rates combined. Although the state's overall rate declined 2.9% from 2003 to 2004, Carteret County's increased slightly. From 1995 to 2004 in the State, there has been a decrease in crime rates across all types of crime.

Although specific county statistics on domestic violence were not obtained, it is possible to gauge the seriousness of that problem by looking at the services provided by the Carteret County Domestic Violence Program. In 2004, the program sheltered 196 women and children for a total of 3,345 bed nights with an average length of stay of 17 days. The agency received 542 calls for assistance, provided 149 transportation services as well as housing advocacy on 166 occasions.

Here's some information from Carteret County's Juvenile Crime Prevention Council's (JCPC) recent Needs Assessment—

During the FY July 1, 2004- June 30, 2005, it is estimated that of the 7,929 Carteret County youth aged 6 -17 years of age, that approximately 1,561 of them were/are at risk for being referred into the juvenile justice system.

Comparisons between County and State rates show these trends:

- A. 27% of adjudicated youth are high risk for committing future delinquent acts  
Compared to state rate of approximately 12%.
- B. Almost ¼ of adjudicated youth were under age 12 at the time of their first Complaint for a delinquent offense which is double the state rate.
- C. Carteret County is also higher than the state rate for youth who have had two or more prior referrals to juvenile court.

- D. 56% of adjudicated youth have some level of substance use/abuse. Higher than the state rate. Of those using substances, 37% are in need of assessment or treatment. This is also higher than the state rate of 18%.
- E. 68% of adjudicated youth have moderate to severe behavioral problems at school.
- F. 89% have peer relationship issues; associating with delinquent peers.
- G. 42% have parents who have problems with providing adequate supervision.
- H. 27% of youth have been victims of abuse/neglect, in comparison with 17% in the state.
- I. 82% have some level of mental health needs.
- J. 40% of adjudicated youth come from homes with domestic discord or domestic violence.
- K. 38% come from homes where one or more family members have current or prior involvement in the justice system.
- L. 21% come from homes where one or more family members are involved in alcohol/drug abuse.

JCPC identifies gaps and barriers in providing services to youth-at-risk. Currently, there are some excellent services available to Carteret County's youth but they do not always adequately address the volume of cases, or the intensity and complexity of situations that some youth are facing. Bilingual services, remediation, and family preservation are some of the programs that could be looked at to address some of those issues.

There are 23 fire departments in the county that serve defined geographic within the county. Each has its own budget and most receive some financial support through the Fire District's tax fund. The county fire marshal's role is one of providing technical and administrative assistance. The NC Department of Insurance, Office of the State Fire Marshall is responsible for inspecting and rating all fire departments in the state that serve a population of 100,000 or less. Fifteen of the twenty-three fire departments also house local Emergency Medical Service units.

### **Housing**

The U. S. Census Bureau reports that Carteret County had 42,090 housing units in 2002. The home ownership rate in 2000 was 76.6%; 14.5% of housing units were in multi-unit structures; and the median value of owner-occupied housing units in 2000 was \$123,900.

Single-family homes and mobile homes comprise over 90% of the county's owner-occupied units, according to a 2001 report of the Housing Assistance Council.

Twenty-three percent of all households in the county are headed by an elderly person. Along with older persons who are native to the area, Carteret County also has witnessed elderly in-migration from other states because of the county's mild climate and recreational benefits. Many of the new residents are able to afford to buy their own homes, but for those seniors with lower incomes, there are several subsidized rental units. Carteret County, according to the report, "...has several active collaborations which greatly assist elderly homeowners to receive repairs and rehabilitations of their homes... This collaboration involving federal agencies, churches, nonprofits and community action groups has been instrumental in providing much needed housing rehabilitation for seniors in Carteret County."

The County Commissioners authorized a County Comprehensive Plan which was completed in 2004. In the plan it is estimated that our population growth over the next few years will make it

necessary to construct about 7,700 new housing units. The objectives to be met are: “1.) Provide an adequate supply of affordable and safe housing for people of all income and age groups, and 2.) allow for various types of housing and residential densities while assuring that public facilities be adequate and the natural, cultural and economic environment will be preserved.”

To meet these needs the county will need to assess housing needs and conditions, establish programs to assist low-income and the elderly with needed repairs or modifications, work with landlords to obtain rehab assistance, identify state agencies that can help finance rehab programs and establish consistent housing codes throughout the county.

Safe, affordable housing can impact personal and community health by lessening injury rates, and improve over all quality of life.

### **Transportation**

Again, citing the County Comprehensive Plan, several observations and objectives are mentioned that will impact our community health and well-being.

The county regularly looks at transportation priorities for road and bridge improvements. In the next twenty years it is predicted that road and bridge traffic will exceed their traffic volume capacities, especially in the western part of the county. U. S .Highway 70, the primary route for people and goods getting in and out of the county has areas of congestion. There is limited public transit, and walking/biking paths projects need to be continued and expanded.

Providing improved roadways with pedestrian walking areas will presumably lessen motor vehicle injuries and fatalities, along with assuring greater safety for walkers and bikers who need access to services and recreation.

For hurricanes and other emergency situations, more efficient evacuation routes need to be developed from Bogue Banks and other high risk areas of the county.

A more comprehensive public transportation system would fill many needs. For example, those without personal autos would have greater access to all types of essential services as well as recreational opportunities. Also, a public system would help alleviate seasonal traffic congestion problems.

### **Recreation, Cultural and Natural Resources**

In the Community Assessment Survey and Community Forums, many people said the best things about living in Carteret County are the natural beauty, beaches, healthy outdoor atmosphere and recreational and cultural opportunities. State and federal parks, an aquarium, off-shore diving, community parks, recreational fishing, public fishing piers, golf courses, public swimming and boating areas, and forests are just a few of our county’s bounty of resources.

Art and cultural activities are steadily growing. Locals and visitors alike can enjoy arts and crafts exhibits, historic tours, a new local history facility, waterfowl and maritime museums. There are annual events that draw visitors from near and far: The Seafood Festival, Beaufort Music Festival, and the Core Sound Waterfowl Festival Weekend grow in attendance every year.

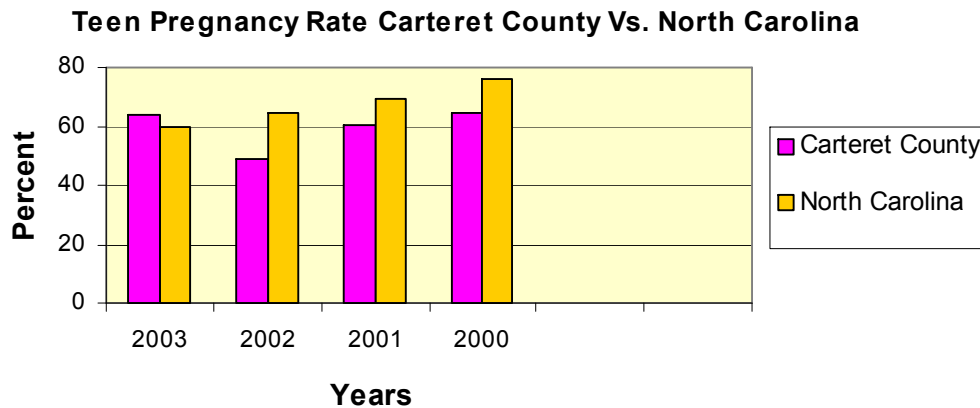
Community bands, NC Symphony, chorales, local theatre and writing groups provide outlets to those interested in the performing and creative arts.

These resources improve quality of life as well as creating jobs and income for the county. Important goals for the future will be to maintain beach and water access, continue to develop high quality recreational facilities, expand cultural opportunities, support historic preservation, and perhaps most important protect natural areas including shellfish and fishing resources.

**D) CHILD AND ADOLESCENT HEALTH**

In Carteret County young women ages 15-19 had a pregnancy rate of 63.8 per 1,000 compared to the state rate of 59.6 per 1,000 as shown in the graph, this is the first time in three years that the county has exceeded the state rate.

**Figure 7**



**Table 11**

**Childhood Overweight:**

Prevalence of Overweight, At-Risk for Overweight, and Underweight in Children 2 through 4 years of age, Carteret County vs. NC, NC-NPASS\*, 2004

	<b>Under Weight &lt; 5<sup>th</sup> Percentile</b>	<b>Normal ≥5<sup>th</sup> to &lt; 85<sup>th</sup> Percentile</b>	<b>At-Risk ≥85<sup>th</sup> to &lt;95<sup>th</sup> Percentile</b>	<b>Overweight ≥95<sup>th</sup> Percentile</b>
<b>Statewide</b>	<b>4.2%</b>	<b>65.3%</b>	<b>15.6%</b>	<b>14.9%</b>
<b>Carteret County</b>	<b>2.8%</b>	<b>62.1%</b>	<b>16.2%</b>	<b>18.8%</b>

Prevalence of Overweight, At-Risk for Overweight, and Underweight in Children 5 through 11 years of age, Carteret County vs. NC, NC-NPASS\*, 2004

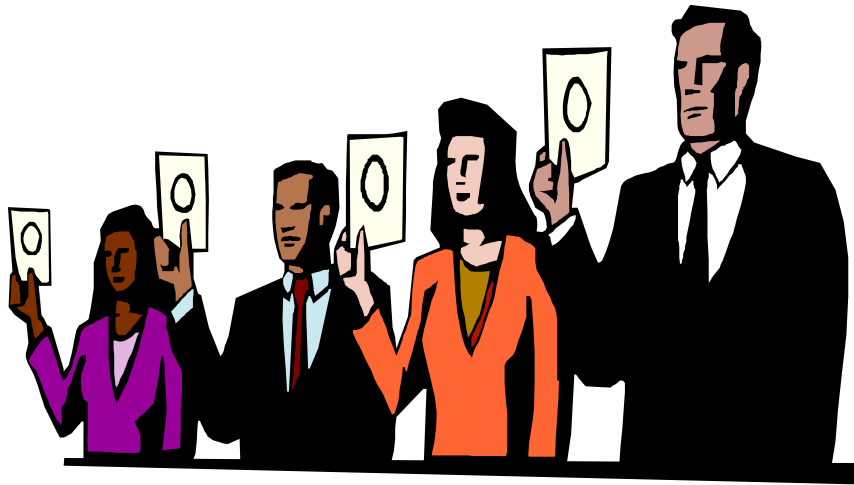
	<b>Under Weight &lt; 5<sup>th</sup> Percentile</b>	<b>Normal &gt;=5<sup>th</sup> to &lt; 85<sup>th</sup> Percentile</b>	<b>At-Risk &gt;=85<sup>th</sup> to &lt;95<sup>th</sup> Percentile</b>	<b>Overweight &gt;=95<sup>th</sup> Percentile</b>
Statewide	3.5%	56.7%	16.0%	23.8%
Carteret County	5.6%	55.6%	22.2%	16.7%

Prevalence of Overweight, At-Risk for Overweight, and Underweight in Children 12 through 18 years of age, Carteret County vs. NC, NC-NPASS\*, 2004

	<b>Under Weight &lt; 5<sup>th</sup> Percentile</b>	<b>Normal &gt;=5<sup>th</sup> to &lt; 85<sup>th</sup> Percentile</b>	<b>At-Risk &gt;=85<sup>th</sup> to &lt;95<sup>th</sup> Percentile</b>	<b>Overweight &gt;=95<sup>th</sup> Percentile</b>
Statewide	1.5%	52.9%	18.3%	27.2%
Carteret County	0.0%	62.5%	12.5%	25.0%

\*North Carolina-Nutrition and Physical Activity Surveillance System includes data on children seen in North Carolina Health Sponsored WIC and Child Health Clinics and some School Based Health Centers.  
[www.eatsmartmovemorenc.com](http://www.eatsmartmovemorenc.com)

# Community Health Survey



## **A) SURVEY PROCESS**

The Community Health Assessment Team compiled a list of distribution points for disseminating the Community Health Survey. This list was intended to generate a large number of returned surveys while reasonably representing the community at large. Without a scientific basis for sampling, it was recognized that this methodology would invariably introduce much bias into the survey. Nonetheless, the committee felt this would be a reasonable approach. The locations determined to be most suitable for distribution of the survey instrument are shown in Appendix A.

A stack of surveys was placed in each location. In some cases, an individual associated with each location was designated to assist in the distribution and collection process. A period of twelve weeks was allowed for the collection of data. Of the some 2500 surveys that were distributed in 71 locations, 792 were completed and turned in, yielding a return rate of roughly 32%. Most of the forms were collected by mail/drop off, but some were also submitted through the Health Department's new web site, [www.carteretcountyhealth.com](http://www.carteretcountyhealth.com). In addition to the designated drop off sites, a full page ad was placed in the Carteret New Times, resulting in approximately 53 returned surveys. At the end of the data collection period, the completed surveys were submitted to a Planning and Research specialist at Carteret Community College for the tabulation of results.

The survey was divided into three parts:

1. Information About You (the respondent)
2. Current Health Status (of the respondent)
3. Living In Our Community (opinions of the respondent)

## **B) SAMPLE CHARACTERISTICS** (Information About You)

This section revealed demographic, socioeconomic, and other information about each survey respondent. Collectively, this data would attempt to represent the community as a whole, subject to some degree of bias inherent in the sampling technique. This, of course, could not be projected given the sampling methodology used. However, comparisons were made between sample parameters and secondary county population data after the results were tabulated. Findings revealed a wide range of disparities in accuracy with respect to the county as a whole. In terms of age distribution, the sample initially appeared highly skewed toward those >55 (46.9% of sample vs. 30% of population). However, a closer inspection suggested much greater accuracy in representing the county once data for individuals <14 were eliminated. The same comparison for those >14 showed 46.9% of sample respondents >55 vs. 38.1% for the general population. A complete breakdown by age is shown in Table 12.

**Table 12**

	TOTAL POPULATION	ADJ. POPULATION	SURVEY SAMPLE
	61,122	51,245 (pop > 14)	762
<b>Age</b>			
less than 18	19.8%	4.4%	1.9%
18-24	7.9%	9.4%	8.2%
25-34	10.8%	12.8%	10.6%
35-44	14.1%	16.8%	15.2%
45-54	15.8%	18.8%	17.1%
55-64	13.7%	16.3%	19.9%
65 or older	18.4%	21.8%	27.0%

Gender, race and ethnicity did not need to be adjusted because of sampling technique, and these parameters showed vastly different disparities with respect to the county as a whole. Whereas the sample was reasonably representative in terms of race (84.7% Caucasian; 12.5% African American in sample vs. 89.3% Caucasian; 7.1% African American in population) and ethnicity (2.3% Hispanic in sample vs. 1.6% in population), the same could not be said for gender. With regard to this variable, results were highly skewed toward female respondents: 72.4% in population vs. 50.9% in sample. Complete results are shown below:

**Table 13**

	TOTAL POPULATION	SURVEY SAMPLE
<b>Gender</b>		
Male	49.1%	27.6%
Female	50.9%	72.4%
<b>Race</b>		
White/Caucasian	89.3%	84.7%
Black/African American	7.1%	12.5%
Asian/Pacific Islander	0.6%	0.4%
Native American	0.4%	1.4%
Other	1.7%	0.9%
<b>Ethnicity</b>		
Hispanic	1.6%	2.3%
Non-Hispanic	98.4%	97.7%

An analysis of respondents' educational levels revealed they were, on the whole, more educated than the county population in general. For example, nearly  $\frac{3}{4}$  of respondents had some education past high school and about  $\frac{1}{3}$  (33.4%) had a four year degree or greater. This is contrasted with county data which describe just over  $\frac{1}{3}$  (37.5%) of the population as having education past high school and only 14% as having a four year degree or greater. Once again,

however, when adjusted for age (for those 25+), data reflect somewhat greater sample accuracy in depicting the county as a whole (52.1%) with education beyond high school and 19.6% with four year degrees or greater, respectively). Complete educational data are shown below:

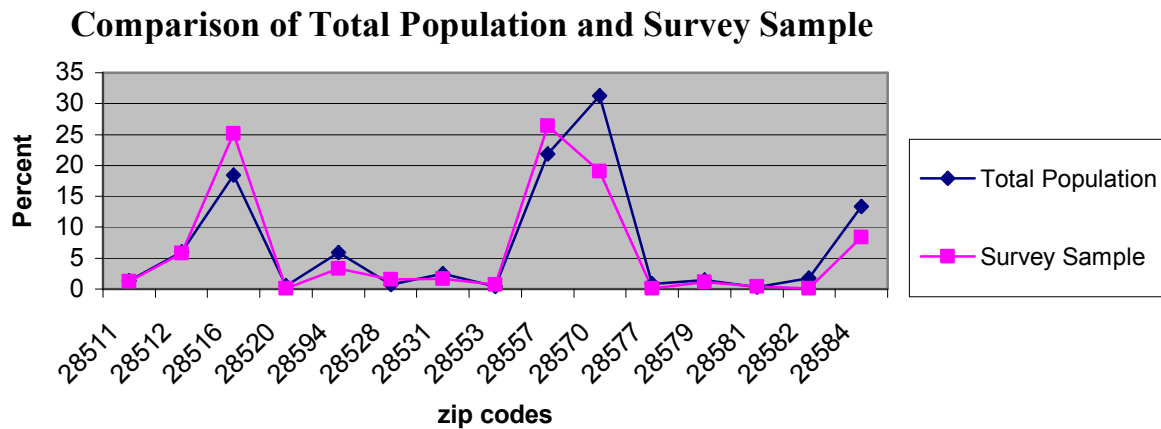
**Table 14**

	TOTAL POPULATION	ADJ. POPULATION	SURVEY SAMPLE
	61,122	44,182 (pop 25+)	762
<b>Educational Level</b>			
Advanced College Degree	4.7%	6.6%	12.8%
Four Year College	9.3%	13.0%	20.6%
Associate Degree	4.9%	6.9%	9.5%
Some College	18.6%	25.6%	31.3%
High School Graduate	21.6%	29.8%	20.8%
Less than H.S. Graduate	13.1%	18.0%	5.1%

Sample data revealed that the greatest number of respondents (28%) reported incomes between \$20,000-39,000, while the second most prevalent response was for incomes less than \$20,000 (24.8%). A direct comparison was not made with the county, as a whole as available data were not bracketed in similar fashion. However, per capita income for 2002 was reported to be \$27,713, which corresponds with the sample mode.

An analysis of sample characteristics by zip code showed that the greatest number of survey participants reside in the communities of Morehead City (26.4%), Beaufort (25.2%), and Newport (19.1%). This reflects slightly more weight for the first two than in the general population (21.9% and 18.4%, respectively) and considerably less for the third (31.3% of county). Complete data are shown below: **Table 15**

Zip Codes	Townships
28511	Atlantic Beach
28512	Atlantic Beach
28516	Beaufort
28520	Cedar Island
28594	Emerald Isle
28528	Gloucester
28531	Harkers Island
28553	Marshallberg
28557	Morehead City
28570	Newport
28577	Sea Level
28579	Smyrna
28581	Stacy
28582	Stella
28584	Swansboro



**Figure 8**

One of the more significant factors often related to health and health care is the availability of health insurance. Almost 9 out of 10 (89.2%) of survey respondents indicated that were covered by a health insurance plan. A breakdown by type revealed that 6.0% of these were private insurance, while 28.2% were Medicare, and 6.6% were Medicaid or “other”, respectively. When asked about the insurance premiums, 43.8% of participants indicated their employer paid the majority of costs. The employee (or family) paid the majority of costs in 28.5%, while costs were evenly split for 18.7% of respondents.

**C) COMMUNITY HEALTH STATUS (Current Health Status)**

Survey respondents described their health as remarkably sound, with 78.1% characterizing their overall health as either “good” (51.4%) or “excellent” (26.7%). The top three health conditions reported by respondents, by a significant margin, were high blood pressure (32.7%), allergy problems (26.5%), and high cholesterol (24.7%). Collectively, four of the top five conditions reported related to chronic lifestyle diseases, with allergy problems being the lone outlier. For those respondents reporting a birth within the last five years, 96.7% indicated that the baby weighed in excess of five pounds.

Issues related to access revealed that survey participants were generally diligent about seeking regular health care services. Routine physical exams within the last year were reported by 81.3% of respondents, while 76.7% of the sample reported receiving dental exams within the last year.

Among those respondents that reported a birth in their household within the last 5 years (12.5% of sample), 93.3% reported having received prenatal care for the entire 9 months of pregnancy. A high number of respondents (96.6%) also reported their newborns being seen by a pediatrician within 2 weeks of birth.

With regard to types of medical facilities utilized for non-emergencies, an overwhelming 77.9% of survey participants reported visiting a doctor’s office for these services, followed by 13.4% that sought care at an urgent care facility.

The assessment of lifestyle behaviors related to health showed generally optimistic results among survey participants. A total of 82.5% of respondents indicated they exercised at least 1-2 times per week for 20 or more minutes, while nearly half (46.5%) reported exercising 3 or more times per week. Over three-fourths (79.4%) also reported that one or more members of their household take multi-vitamins on a daily basis. With regard to substance abuse, fewer than 1 in 5 survey participants (18.7%) indicated they used tobacco, while slightly more (21.4%) indicated they were exposed to second hand smoke on a regular basis. Only 0.5% admitted to abusing drugs, whether illegal or prescription. In a beach community where sunbathing is prevalent, fewer than one-fourth of survey participants (21.9%) reported they did not protect their skin from the harmful effects of sunburn.

Issues related to pregnancy revealed that only 6.8% of respondents were less than 18 years of age. This closely matches secondary county data at 6.4% and supports a slightly higher incidence than secondary state data of 6.0%. In addition, only 14.6% of survey respondents reported smoking during pregnancy, compared to 20.6 and 13.3 for the county and state, respectively.

#### **D) HEALTH/COMMUNITY NEEDS (Living In Our Community)**

A tabulation of survey respondents' opinions regarding the community as a whole revealed the following problems to be most significant:

Lack of job opportunities	45.5%
Public transportation issues	44.9%
Land development issues	34.0%
Stormwater runoff	26.8%

Other problems identified by 10-20% of survey participants included: unsafe roads and bridges (19.8%), poor recreational facilities (19.3%), lack of child care and after school programs (17.9%), drinking water supply/quality issues (17.7%), mental illness (17.4%), lack of shopping opportunities (16.7%), inadequate adult education and vocational training (16.3%), housing (15.2%), public schools (13.4%), wastewater disposal (13.1%), and social services (12.8%). It is noteworthy that traditional environmental health issues were not viewed to be among the top community problems. Of the 21 survey choices presented, wastewater disposal ranked #14, followed by private wells at #17, recreational water quality at #19, restaurant safety at #20, and air quality at #21. A review of respondents' narrative remarks suggest that "land development issues" was inferred by most to mean "overpopulation" or "crowding" as opposed to problems related to *lack of development* because of sewage issues, septic tanks, etc.

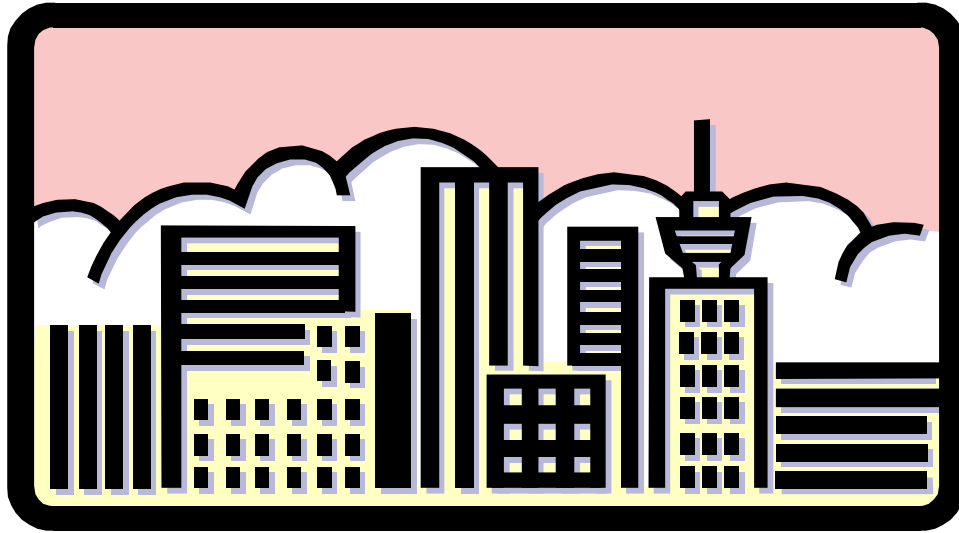
Among 25 top health issues in the United States, almost ½ (49.4%) of survey respondents identified obesity/overweight health status as their chief health concern for Carteret County. This was followed by approximately 1/3 of respondents indicating concern in the following areas: access to health care (37.0%), high blood pressure (32.1%), cancer (31.7%), heart disease (31.4%), and diabetes (30.1%). Approximately ¼ of survey participants identified the following issues as chief concern for the county: Alzheimer's disease (28.7%) and mental illness and depression (26.0%). It is worth noting that 4 of the top 5 health concerns for the county were lifestyle related, with "access to care" being the one exception.

In relation to finding and using 29 specific health services in Carteret County, respondents identified the following five issues as being most important: health care transportation (30.3%), mental health/counseling (29.3%), drug and alcohol treatment (28.0%), lack of private health insurance coverage (25.5%), and home care for the elderly/disabled (24.6%). Among the least problematic services were: 911 emergency services (4.0%), food safety problems (5.4%), public health (6.2%), environmental health services (6.9%), and driver safety training (7.8%). These results suggest a high overall level of satisfaction with most public health programming, most especially related to environmental health.

With regard to 21 unhealthy behaviors resulting in poor health, survey respondents felt that 5 of the top 6 issues for Carteret County were related to some form of substance abuse (including tobacco, alcohol, and drugs). In order of importance, these were identified as follows: alcohol abuse (73.6%), lack of exercise (67.6%), drinking and driving (66.9%), drug abuse (65.3%), tobacco use among adults (62.2%), and tobacco use among those under 18 (57.4%). Among those behaviors seen as posing the least threat in Carteret County are the following: weapons in schools (14.5%), elder abuse (16.3%), inadequate immunization (18.8%), poor use of child safety seats (20.2%), and not using seatbelts (23.7%).

Multiple narrative comments were also submitted by survey respondents. While these remarks ranged from general to very specific and covered a wide range of subject matter, many were seen to relate to such issues as inadequate mental health services, unsafe roads, lack of public transportation, and over development.

# Community Forums



Holding community forums is one of the recommended methods for obtaining important information and opinions from local citizens about what needs and strengths exist in the county.

After the majority of the written surveys were returned, Carteret County Health Department and representatives of Healthy Carolinians (Beacon Health Partners) made arrangements to hold three community forums open to the citizens. The forums were scheduled at each end of the county and at a central location as follows:

Davis Volunteer Fire Department  
Tuesday, September 30, 2005 at 7:00 P.M.  
Number of Participants: 1

Western Carteret Community Center  
Tuesday, September 28, 2005 at 7:00 P.M.  
Number of Participants: 7

Carteret County Health Department  
Tuesday, October 4, 2005 at 7:00 P.M.  
Number of Participants: 2

The forums were publicized through all the local media outlets, and several radio interviews were given to invite the public, and solicit their input.

At each open meeting, Carteret County Health staff members were present to take notes and record the session. At each, similar questions were posed by a facilitator.

The questions and a compilation of responses follow:

- 1.) **Question:** What are the best things about living in Carteret County?  
**Responses:** Salt air, scenery, bike paths, walking trails, the beach, laid back community, healthy outdoor atmosphere.
- 2.) **Question:** What does good health mean/What does a healthy community look like?  
**Responses:** Freedom from pain, good air and water, a combination of physical, mental and spiritual well-being, everyone working together, financial health, safety, good leadership, Godliness, accessible resources and services, prevention/education, recreation and cultural activities, preparedness for emergencies, a clean environment, no stray animals. Good communication.
- 3.) **Question:** What have you observed in the community?  
**Responses:** There are segments or pockets of people who live in unhealthy environments: Children living in homes where smoking, drug use going on; alcoholism, social isolation, lack of education; low income can often be predictor of poor health; dental health problems in young children often reflect general health problems in the family; people find it difficult to find in-county Medicaid providers for special therapies; i.e., physical and occupational; also, difficult to find in-county Medicaid dental providers to take difficult cases that are not appropriate for the mobile dental van; many cannot

afford health insurance; cutting back on prescribed medications to make it last longer. Also, in children, too much junk food and growing problem with obesity is being observed.

4.) **Question:** What needs improvement in Carteret County?

**Responses:** Public transportation; rules and regulations are bent to accommodate developers; more sidewalks; a community resource file; a 24-hour crisis intervention/substance abuse/mental health facility; alternative/holistic medicine working with public health; have all the restaurants go to “non-smoking;” more medical providers who will accept Medicaid; need to have a funds available for people “in the void;” need to get community groups together to work on solutions for a healthier community; getting rid of barriers- who needs/wants the help and how do we get it to them?

5.) **Question:** How to get health promotion messages out?

**Responses:** Due to our geography and many small communities, hard to get health messages out; need to get Healthy Carolinians group going again to open up funding opportunities and bring together independent groups to work together. Also, churches may be good place to promote health-people want to be there and are open to helpful information.

Carteret County Health Department and Beacon Health Partners thanks all those who attended the community forums. We value and appreciate the time and interest they displayed in sharing their views with us.

# Establishing Health Priorities



## **A) SETTING HEALTH PRIORITIES**

### **Decision-Making Forum**

The process of selecting health priorities will take place in early 2006. Carteret County Health Department and Healthy Carolinians of Carteret County will identify and implement needed health initiatives in our community. The board will assemble to review the information contained in this report and to deliberate the current status and health needs of Carteret County. Members of this board include representatives of many diverse interests across the county and, as such, should be able to present a well-balanced approach to decision-making.

The Health Priorities Task Force will be asked to review relevant data and determine the top five health priorities for Carteret County. A list of secondary needs may also be identified for future reference, but the top five will form the basis of a Community Action Plan that will be completed by March, 2006. These issues will also prompt the formation of action teams within the Healthy Carolinians group that will proceed with the development of initiatives to address each health priority. This, for example, is the process that was used to establish some existing health services, such as the mobile dental program, and walking trails.

### **Sources of Health Data**

The main sources of health information that will be used to determine health priorities for Carteret County are as follows:

- 1) Existing “secondary” health data
- 2) New “primary” survey data
- 3) Input from the community health forums (also “primary” data)

Each of these sources offers distinct advantages for decision-making, but also pose inherent limitations which should be considered in light of other available information. For purposes of weighting the relative importance of each data source, it is useful to highlight some of these concerns.

### **Secondary Health Data**

These data are available from a host of governmental and other organizational entities, and reflect population characteristics and health status at federal, state, regional, and local levels. This information often derives from federal census data, and, as such, can be very comprehensive and systematically presented for purposes of comparison locally. Inherent disadvantages may include difficulties in making direct comparisons with local issues of interest and variability in time frames referenced. Nonetheless, these data present valuable points of reference against which community measures can be gauged in determining health priorities.

Secondary data often relates to causes of mortality and morbidity, which present different ways in which to measure community health status. For example, morbidity data often suggests a great sense of urgency and importance in community health planning, and especially insofar as

discrepancies with larger geographic areas or populations are concerned. In reality, local causes of morbidity frequently mirror those seen in larger survey areas, with perhaps only minor changes in ordering. This is particularly true once local data are adjusted for age and/or other demographic variables. Morbidity data, on the other hand, often seems less alarming but may in fact constitute a far more serious community health problem by virtue of the number of people affected, sick days lost, economic costs to families and the community, etc.

**Primary Health Data: Community Assessment Survey**

This information offers the advantages of being locally derived, current, and specific to matters of local interest by virtue of design. However, one significant drawback in relying too heavily upon this data is that of survey bias. In the absence of sophisticated design, sampling, data collection and analysis, locally-conducted surveys are inherently non-scientific, which often translates into a skewed picture of the survey variables being studied. The relevance and accuracy of data can be compromised by how questions are asked, those of whom they are asked, how and where survey subjects are found, and how many participate in the survey. Thus, data can be skewed in any variety of ways, the very extent of which is also difficult to determine. At best, these data can reasonably represent the community at large; at worst, they can be little more than anecdotal.

**Primary Health Data: Community Health Forums**

Community health forums provide an opportunity for community citizens to speak openly about their health concerns. These meetings allow for frank, honest discussion on selected topics. However, they are also limited in that they require individuals to be physically present at a specified time and place.

**B) RELATIVE IMPORTANCE OF DATA SOURCES**

In attempting to prioritize health issues for a given community, it is important to allow due consideration to be given to the matter of process. By developing a framework for decision-making, priorities can be identified more systematically and objectively. This should ultimately lead to a more efficient allocation of resources to effect optimal community health programming.

A first consideration should be given to the relative importance of the three main sources of data. By eliciting input from Healthy Carolinians, an attempt can be made to mentally “weigh” the value of each source, an example of which is shown below:

Example:	Date Source	Relative Weight
	Composite Secondary data	50%
	Survey data	40%
	Community forums	10%

## Importance of Health Values

Moreover, when trying to prioritize a wide array of health issues, dichotomies often emerge which can be tied to strong individual values. For example, it is often difficult to say which of the following is “more important” when setting health priorities for a given community.

- mortality (relatively fewer) vs. morbidity (relatively more)
- curative vs. preventive measures
- children’s vs. adult services
- urgent vs. chronic diseases
- reactive vs. proactive initiatives

During the decision-making process, a group discussion pertaining to these choices may help with establishing a “big picture” perspective. This is to be encouraged, lest the process becomes too focused too quickly to remain objective.

## Types of Issues

It may also be useful to characterize health issues into one of three basic types:

- Issues of crisis: These are crisis-driven, urgent problems, often with dire consequences, for which health programming is mostly reactive in nature.
- Issues of disparity: These refer to problems centered around poverty, social inequality, and health disparities. Programming is often a blend of reactive and proactive strategies.
- Issues of wellness: These issues focus on quality of life, and mostly address lifestyle behaviors that affect chronic health conditions. Initiatives to address these concerns are generally at least somewhat proactive by design.

It might be helpful to determine what level of attention a community can “afford” to pay to each of these types of health problems. This has much to do with a community’s economic prosperity, political and cultural make-up, existing infrastructure, etc. One approach to objective decision-making would be to again “weigh” the relative importance of these three types of health issues, such as is shown below:

Example:	Crisis Issues	20%
	Disparity Issues	40%
	Wellness Issues	40%

### **C) IDENTIFICATION OF PRINCIPAL HEALTH ISSUES**

The task of establishing health priorities will be undertaken by Healthy Carolinians of Carteret County, with some guidance from the Community Health Assessment Team. In effect, a lengthy list of issues which has emerged from the three principal data sources will be pared down to a manageable five or so that can be addressed through the community action plan.

The primary issues that were identified during data collection can be seen in Table 16. Note that health-related issues are grouped by type into one of four categories:

- Environmental Factors
- Behavior Factors
- Disease-Related Factors
- Access-Related Factors

This grouping is structured in accordance with the format of the Community Health Assessment survey instrument, which attempted to solicit input on a wide range of health-related issues. Many of these are within the traditional purview of public health to address in their programming, while others are within the broader scope of “health” more generally. Still more are really beyond the operational sphere of health altogether. For example, community input was solicited on such issues as “job opportunities”, “safe roads/bridges” and “land development.” While these concerns do indeed impact community health, either directly or indirectly, they are often targeted for action by organizations far removed from “health” per se. Nevertheless, they were felt to be important enough for inclusion on the community survey and forum discussions.

The focus of much of the secondary data, by contrast, was on disease-related entities. Much of the planning that takes place either in public health specifically or other health groups more generally often revolves around negative health outcomes. These are most often considered in terms of mortality and morbidity. While this may not be the most progressive approach to health planning, it is probably the most common and therefore not unreasonable for purposes of this project.

### **D) SELECTION OF TOP HEALTH PRIORITIES**

While attempting to remain as objective as possible, Healthy Carolinians of Carteret County will attempt to reduce this list to approximately five chief concerns that can be addressed through the Community Action Plan. In so doing, it may be helpful for group members to consider the choices presented in terms of specific, practical questions to be asked of each issue:

1. What is the *magnitude* of the problem?
2. What are the *consequences* of not addressing this problem?
3. What is the *feasibility* of correcting or reducing this problem?

Answers to these questions can then be rated 1 through 5 (with 1 = least important, 5 = most important) by each group member on all issues considered. Once each group member “votes” on

issues of his/her choice, results would be tallied for the group as a whole , and issues would be ranked by numerical score. The group can select as many issues to address through subsequent action planning as resources allow, but five is a reasonable working number and should be sufficient for the near future.

**Summary of Decision-Making Process**

It is important for members of the decision-making body to develop a common “starting point” in their deliberations. It is recommended that initial group discussions include mention of the relative “weight” of data sources utilized, importance of health “values” that can affect decision-making, and nature or “type” of health issues presented. This accomplished, the group can then consider, by nominal group process, the list of principal concerns that emerged from three distinctly different methods of data collection. Each issue should be considered in terms of magnitude, consequences, and feasibility, and rated in these terms, respectively. Once results are tallied, a numerical ranking would emerge to depict a group assessment of the most critical health issues for the community. This approach should prove useful in keeping the decision-making group on task and objective in their deliberations. One would hope that this approach would lead to a rational, balanced set of health priorities that truly reflect a “best fit” picture for the community.

**Table 16**

The principal health-related issues that emerged from efforts to date are shown below:

<b>RANK</b>	<b>ENVIRONMENTAL FACTORS</b>		
	<b>(EH and Community Infrastructure)</b>		
	<b>Comparative Data</b>	<b>Survey Data</b>	<b>Forum Input</b>
1		Job opportunities	
2		Public transportation	
3		Land development issues	
4		Water quality (recreational)	
5		Safe roads/bridges	
<b>RANK</b>	<b>BEHAVIORAL FACTORS</b>		
	<b>(unhealthy personal behaviors)</b>		
	<b>Comparative Data</b>	<b>Survey Data</b>	<b>Forum Input</b>
1		Alcohol	
2		Lack of exercise	
3		Unsafe driving	
4		Drugs	
5		Smoking	

<b>RANK</b>		<b>DISEASE-RELATED FACTORS</b>	
		<i>(causes of mortality/morbidity)</i>	
	<b>Comparative Data</b>	<b>Survey Data</b>	<b>Forum Input</b>
1		Cerebrovascular disease	
2		Obesity	
3		Heart disease	
4		Allergy	
5		All Cancers and Diabetes (tied)	
<b>RANK</b>		<b>ACCESS-RELATED FACTORS</b>	
		<i>(health services and access issues)</i>	
	<b>Comparative Data</b>	<b>Survey Data</b>	<b>Forum Input</b>
1		Transportation	
2		Mental health/counseling	
3		Drug/alcohol treatment	
4		Financial barriers	
5		Home health care	

# **Dissemination of Results & Development of Community Action Plan**



## **A) DISSEMINATION OF RESULTS**

The final Community Assessment report will be completed by January, 2006, and will include a list of top health priorities for Carteret County. Upon review and approval by the Healthy Carolinians of Carteret County, plans will be made for distribution of the report throughout the community. Copies will be forwarded to community leaders. For example, coverage of Community Health Assessment results will appear on the local health department's monthly news program, "Lookout For Your Health".

## **B) DEVELOPMENT OF COMMUNITY ACTION PLANS**

Once health priorities have been approved by the full board of Healthy Carolinians of Carteret County, task forces will be formed to address each health need separately. These work groups will be comprised of individuals with a particular interest, connection, or expertise on the issue. The task forces will pursue a systematic course of action in attempting to fully understand each health issue, develop appropriate interventions, identify resources, and complete a plan for implementation. The group will determine working timelines, specific areas of responsibility, and means of accountability for project success.

A Community Health Action Plan will be completed for health priorities, copies of which will be submitted to the Office of Healthy Carolinians/Health Education. These plans are intended to guide the working progress of initiatives developed to address each health need. Moreover, they are designed to follow a specific format in order to partially satisfy requirements of the Healthy Carolinians Partnership for certification/ recertification. This format is outlined in the Community Assessment Guide Book published by the Office of Healthy Carolinians/Health Education and the State Center for Health Statistics.

The first step for each action team is to thoroughly understand the basis for the health problem their team is posed to address. The group will identify factors that contribute to or perpetuate the problem, barriers to its reduction or elimination, and resources present or needed. In some cases, it may be helpful to formulate specific hypotheses that help highlight underlying causes of the problem. Some risk factors may be lifestyle-related, while others may be more associated with the environment, availability of health care resources, or other aspects of community infrastructure. For clarity and purposes of communication, it will be helpful for each task force to enumerate these risk factors for their respective health priorities.

The groups will next identify specific interventions for reducing or eliminating these risk factors. Intended changes may be designed to take place on individual or organizational levels, or, alternatively, they may impact the entire community vis-à-vis changes in policy, the environment, or community infrastructure. These interventions will be linked to the Healthy Carolinians 2010 Objectives and will include details regarding timelines, settings, areas of responsibility, targeted community members, and attention to health disparities that may be present. North Carolina 2010 Health Goals are:

- Increase the span of healthy life of the citizens of North Carolina;
- Remove health disparities among the disadvantaged;
- Promote access to preventive health services;
- Protect the public's health;

- Foster positive and supportive living and working conditions in our communities;
- Support individuals to develop the capacities and skills to achieve healthy living.

It will also be important to identify existing resources that can be used to address each health priority. During this process, gaps in service may be identified, and the potential benefit of making changes in this regard can be weighed against costs, time requirements, and the like. In order to maximize efficiency and avoid duplication, it will also be important to clearly delineate the scope and responsibility of service organizations that participate in each intervention.

The final planning step in planning a response to each health priority will be the completion of the Community Action Plan. A specific form will be used for each priority, and copies will be made available to the entire board of Healthy Carolinians of Carteret County for discussion, revision, and approval. Final copies will then be submitted to the Office of Healthy Carolinians/Health Education.

### **C) IMPLEMENTATION**

The implementation stage will begin once plans are finalized. Healthy Carolinians partnership will then develop action teams. At this time, specific roles will be identified ,and progress toward achieving stated objectives will be reported to the Board of Health and Healthy Carolinians of Carteret County and the community on an appropriate time basis.

## APPENDIX A

### DISTRIBUTION POINTS FOR COMMUNITY HEALTH SURVEY

ACORN Center for Families	Food Bank
Aging Planning Board	Food Lion, Beaufort
All Hazards Committee	Gold's Gym
Assisted Living Facilities	Henry's Tackle
Atlantic Methodist Church	K-Mart
Beaufort Child Development Center	LeChris Counseling Center
BFT Housing Authority	Leon Mann Center
Board of Education/SHAC	Lowe's Foods
Board of Realtors	Lowe's Home Improvement
Boys and Girls Club, MHC and BFT	Martha's Mission
Broad Street Clinic	Merrimon United Methodist Church
Cape Carteret Aquatics and Wellness	MHC Parks and Recreation
Cape Carteret Town Hall	Miles of Smiles Dental Van
Caroline's House	Mt. Zion Missionary Baptist Church
Carteret Community College	NC Maritime Museum
Carteret County Libraries	Newport Development Center
Carteret County Parks and Recreation	Newport Town Hall
Carteret County Schools - Central Office	Onslow-Carteret Behavioral Health
Carteret General Hospital	Pet Docks
Cedar Island Ferry Administration	Planning and Inspection Office
Coastal Community Action	Reception Areas in Health Dept.
Colony Day Care	South River Fire and EMS
Cooperative Extension	Sports Center
County Bar Association	St. Egbert's Church
Courthouse Offices	Town of Atlantic Beach
Dave Robertson, DDS	Town of Beaufort Water Dept.
Department of Social Services	Town of Emerald Isle
Eastern Athletic Club, BFT	Town of Indian Beach
Eastern Carteret Medical Center	Town of Morehead City
Emerald Isle Parks and Recreation	Town of Pine Knoll Shores
Emerald Isle Primary Care	Veterans Services Office
Emerald Isle Primary Care	Wal-Mart
Employment Security Office	Walter's Chapel A.M.E. Zion Church
Faith Tabernacle of Praise	Western Carteret Medical Center
Family Practice Pharmacy	Western Park Community Center
First Presbyterian Church	



<u>3.4</u>	Food Industry (restaurant, fast food, grocery store)
<u>27.9</u>	Retired
<u>3.1</u>	Not employed
<u>13.3</u>	Other: _____

**10. Are you covered by a health insurance plan?**

**N=757** 89.2 Yes 10.8 No

If yes, what type of coverage do you have?

<u>28.2</u>	Medicare (includes supplemental policy)
<u>6.6</u>	Medicaid
<u>60.0</u>	Private Insurance (includes Blue Cross/Blue Shield)
<u>6.6</u>	Other: _____

If you have private insurance, who pays the premium costs?

<u>43.8</u>	My employer pays the majority of the cost
<u>28.5</u>	I (or my family) pay the majority of the cost
<u>18.7</u>	Employer and I (or my family) each pay about half
<u>9.0</u>	Other: _____

**11. What is your zip code? (See Table 15)**

**Current Health Status**

**1. In general, I would rate my overall health as being:**

26.7 Excellent 51.4 Good 17.0 Average 5.0 Poor

**2. Has your doctor/dentist ever told you that you had: (check all that apply)**

<u>8.0</u>	Heart disease	<u>4.3</u>	Heart attack	<u>7.6</u>	Cancer
<u>32.7</u>	High blood pressure	<u>11.7</u>	Diabetes	<u>1.8</u>	Emphysema
<u>24.7</u>	High Cholesterol	<u>6.8</u>	Gum Disease	<u>9.5</u>	Teeth Grinding
<u>3.4</u>	Prostate Problem	<u>11.5</u>	Obesity	<u>8.7</u>	Asthma
<u>26.5</u>	Allergy problems	<u>4.2</u>	Mental Illness		

**3. How long has it been since you had a routine physical exam? N=773**

<u>43.5</u>	Less than 6 months	<u>37.8</u>	6 months – 1 year	<u>12.9</u>	2 – 5 years
<u>2.1</u>	5 – 7 years	<u>1.4</u>	7 – 10 years	<u>1.8</u>	10+ years
<u>0.5</u>	Never				

**4. Do you exercise (at least 20 minutes each time): N=759**

<u>36.0</u>	1 – 2 times per week	<u>39.1</u>	3 – 6 times per week	<u>7.4</u>	7+ times per week
<u>17.5</u>	Not at all				

**5. Do you smoke cigarettes or use other tobacco products? (cigar, snuff, pipe, chewing tobacco)**

**N=777**

18.7 Yes 81.3 No

**6. Are you exposed to secondhand smoke on a regular basis? N=772**

21.4 Yes 78.6 No

**7. Do you abuse drugs? N=778**

0.5 Yes 99.5 No

**8. Do you protect your skin from sunburn? N=770**

78.1 Yes 21.9 No

**9. Has a baby been born in your household during the last 5 years? If no, skip to the next section. N=714**

12.5 Yes                      87.5 No

**9a. If “yes”, did the baby weigh more than 5 pounds at birth?**

96.7 Yes                      3.3 No

**9b. Did the mother receive prenatal care?**

93.3 Entire 9 months    6.7 6 months    0.0 3 months  
0.0 Less than 3 months    0.0 Not at all

**9c. Did the mother smoke during pregnancy?**

14.6 Yes                      85.4 No

**9d. Was the mother less than 18 years of age?**

6.8 Yes                      93.2 No

**9e. Was the infant seen by a pediatrician within 2 weeks of birth?**

96.6 Yes                      3.4 No

**11. How many members of your household take a daily multi-vitamin? \_\*\*\_\_\_\_\_**

**Living in Our Community**

**1. In your opinion, does your community have a problem with any of these issues? Check all that apply.**

<u>13.4</u> Schooling for children from pre-kindergarten through high school	<u>17.9</u> Child care and/or after school programs
<u>16.3</u> Educational & vocational training for adults	<u>16.7</u> Stores to buy things we need
<u>45.5</u> Job opportunities	<u>3.7</u> Air quality
<u>44.9</u> Public transportation	<u>6.7</u> Recreational water quality
<u>12.8</u> Social services	<u>26.8</u> Stormwater
<u>8.0</u> Legal services	<u>8.1</u> Private wells
<u>19.3</u> Recreation facilities	<u>13.1</u> Wastewater disposal
<u>9.1</u> Injuries (car crashes, work-related, in-home)	<u>17.7</u> Drinking water supply & quality
<u>19.8</u> Safe roads & bridges	<u>5.2</u> Restaurant safety
<u>15.2</u> Housing	<u>34.0</u> Land development issues
<u>17.4</u> Mental illness	

**2. Listed below are health concerns in the United States. Please check all that you are concerned about in our community.**

<u>37.0</u> Access to health care	<u>20.7</u> HIV/AIDS	<u>49.4</u> Obesity/overweight
<u>28.7</u> Alzheimer’s/Dementia	<u>9.6</u> Infant Mortality	<u>19.7</u> Sexual Assault/Rape
<u>15.5</u> Asthma	<u>21.2</u> Environmental pollution	<u>18.4</u> Stroke
<u>30.1</u> Diabetes	<u>6.2</u> Low-birth weight	<u>14.8</u> Suicide
<u>14.4</u> Flu/pneumonia	<u>26.0</u> Mental illness/depression	<u>14.8</u> Lung disease
<u>32.1</u> High blood pressure	<u>21.6</u> Motor vehicle injuries	<u>8.2</u> injuries
<u>18.1</u> Respiratory Disease (Bronchitis)		<u>31.4</u> Heart Disease
<u>18.6</u> Learning & developmental disabilities		
<u>17.4</u> Lack of Basic Needs (food, water, home)		
<u>6.3</u> Liver Disease (hepatitis, cirrhosis)		
<u>17.3</u> Sickness from animals (rabies, West Nile Virus)		
<u>31.7</u> Cancer (Type) _____		
<u>4.9</u> Other: _____		

**3. In your opinion, do people in your community have a problem finding or using these services? Check all that apply.**

22.2 Medical Care                      10.1 Hospital Services                      22.2 Dental Care

<u>29.3</u>	Mental health care/counseling	<u>9.7</u>	Emergency medical care	<u>8.1</u>	Pharmacy/drug stores
<u>28.0</u>	Drug & alcohol treatment	<u>19.4</u>	Health education programs	<u>14.8</u>	Home health care
<u>30.3</u>	Transportation to health care	<u>16.5</u>	Respite care (relief for caregivers)		
<u>19.8</u>	Long term care	<u>6.2</u>	Public Health		
<u>10.1</u>	Rehabilitation after surgery or injury				
<u>25.5</u>	Private health insurance coverage				
<u>10.1</u>	Enrolling in Medicaid/Medicare				
<u>4.0</u>	911 emergency services				
<u>17.6</u>	Housing assistance (public housing or aid)				
<u>15.4</u>	Utilities assistance (to pay electricity or fuel bill)				
<u>14.0</u>	Food Assistance (money or food)				
<u>9.6</u>	Alternative Care				
<u>6.6</u>	Environmental Health Services				
<u>5.4</u>	Food Safety Programs				
<u>7.8</u>	Driver Safety Training				
<u>12.8</u>	Nutrition Counseling				
<u>8.5</u>	Eye Care				
<u>20.5</u>	Adult Day Care				
<u>11.6</u>	Child Care				
<u>24.6</u>	In home care for elderly/disabled				
<u>2.9</u>	Other: _____				

**4. Listed below are some unhealthy behaviors that may cause poor health. Please check all behaviors that you think keep people in our community from being healthy.**

<u>73.6</u>	Alcohol abuse	<u>44.8</u>	Domestic Violence	<u>65.3</u>	Drug Abuse
<u>33.0</u>	Child Abuse	<u>66.9</u>	Drinking & driving	<u>30.9</u>	Not getting physical/eye check-ups
<u>67.6</u>	Lack of exercise	<u>16.3</u>	Elder abuse	<u>18.8</u>	Not getting immunizations
<u>20.2</u>	Not using child safety seats	<u>23.7</u>	Not using seatbelts	<u>52.8</u>	Poor eating habits
<u>39.0</u>	Poor oral care	<u>35.2</u>	Reckless driving	<u>44.6</u>	Unsafe sex
<u>62.2</u>	Tobacco use among adults	<u>14.5</u>	Weapons in schools	<u>57.4</u>	Tobacco use among people under 18
<u>33.3</u>	Violent behavior	<u>24.4</u>	Youth violence		
<u>25.0</u>	Youth access to & use of weapons				
<u>4.0</u>	Other: _____				

**5. What type of medical facility do you normally use for non-emergencies?**

<u>77.9</u>	Doctor's office	<u>5.9</u>	Military facility
<u>13.4</u>	Urgent Care facility	<u>7.3</u>	Emergency Room
<u>4.2</u>	Public Health Department	<u>3.0</u>	None

**6. How long has it been since you had a routine dental exam? N=750**

<u>52.3</u>	Less than 6 months	<u>24.4</u>	6 months to 1 year	<u>13.6</u>	2 to 5 years
<u>2.9</u>	5 – 7 years	<u>1.7</u>	7 – 10 years	<u>5.1</u>	10+ years

**7. Do you own domestic pets (cats, dogs)?**

<b>N=768</b>	<u>55.5</u>	Yes	<u>44.5</u>	No
<b>Are they vaccinated for rabies?</b>	<u>96.2</u>	Yes	<u>3.8</u>	No

**8. Do you look for Sanitation Grade Card in restaurants before dining?**

<b>N=738</b>	<u>84.7</u>	Yes	<u>15.3</u>	No
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**9. What other problems do you think affect your community that we didn't ask about?**

**Please complete and return by August 1, 2005.**

**County Health Department  
3820-A Bridges Street  
Morehead City, NC 28557  
(252) 728-8550  
FAX: (252) 222-7739**

**Please return to above address or complete and leave at your pick-up site.**

**10. What do you think are the strengths of our community?**

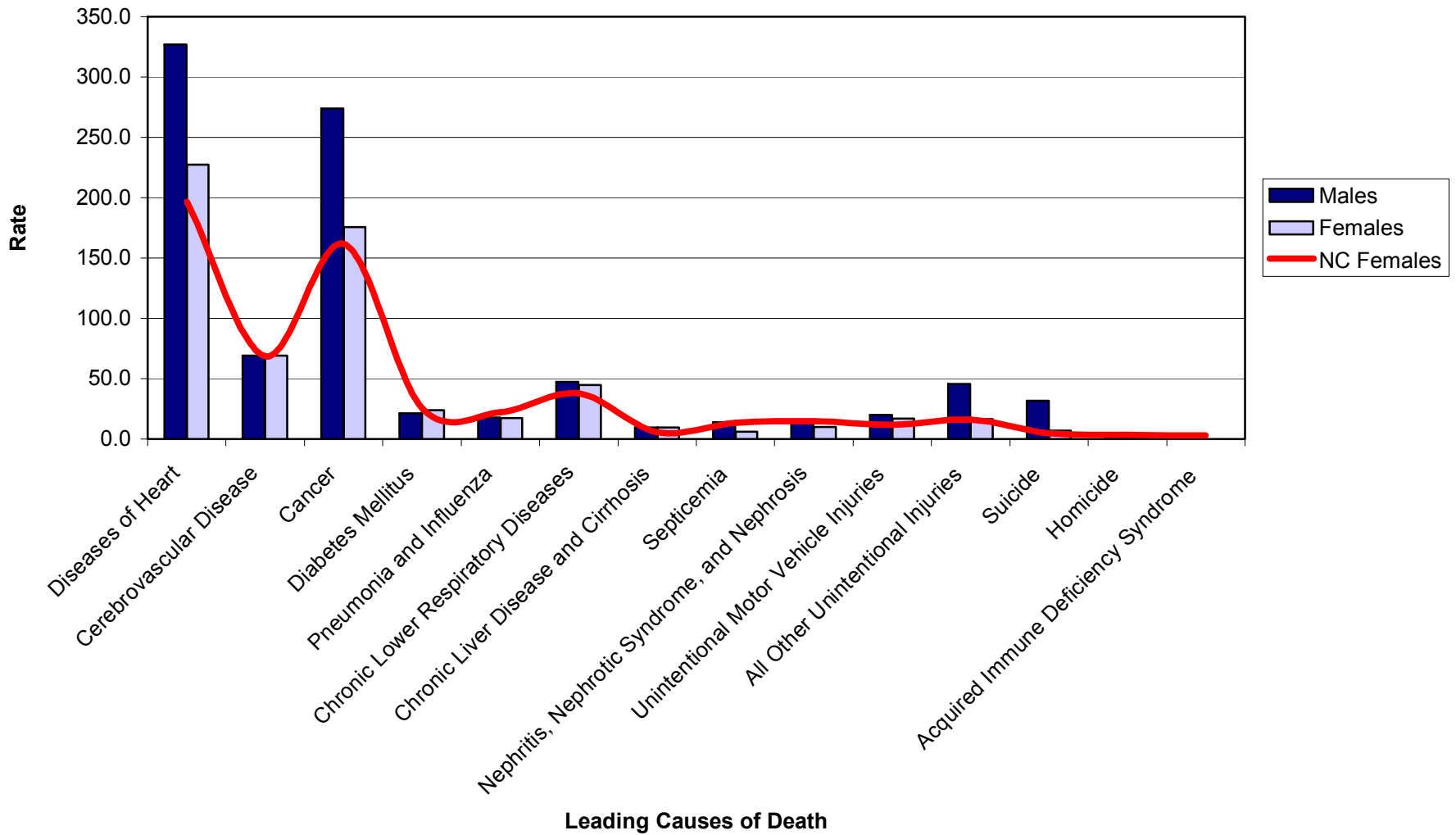
** Number of individual in household:	Percent:
0	20.5%
1	32.1%
2	35.5%
3	7.4%
4	3.4%
5	0.5%

*\*Answers are not reliable*

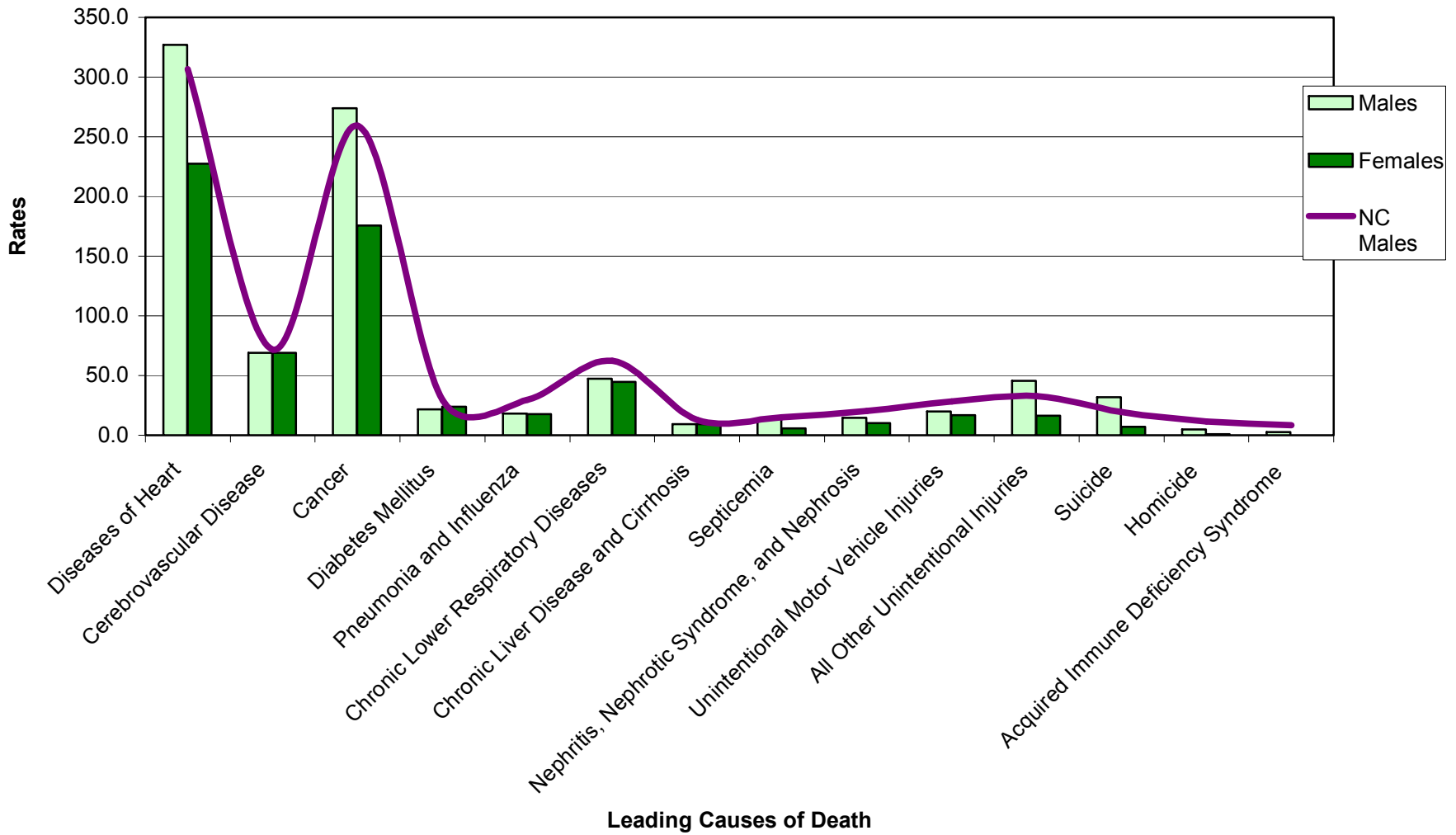
***Thank you for completing our survey!  
Results will be tabulated and reported to the community at a later date.***



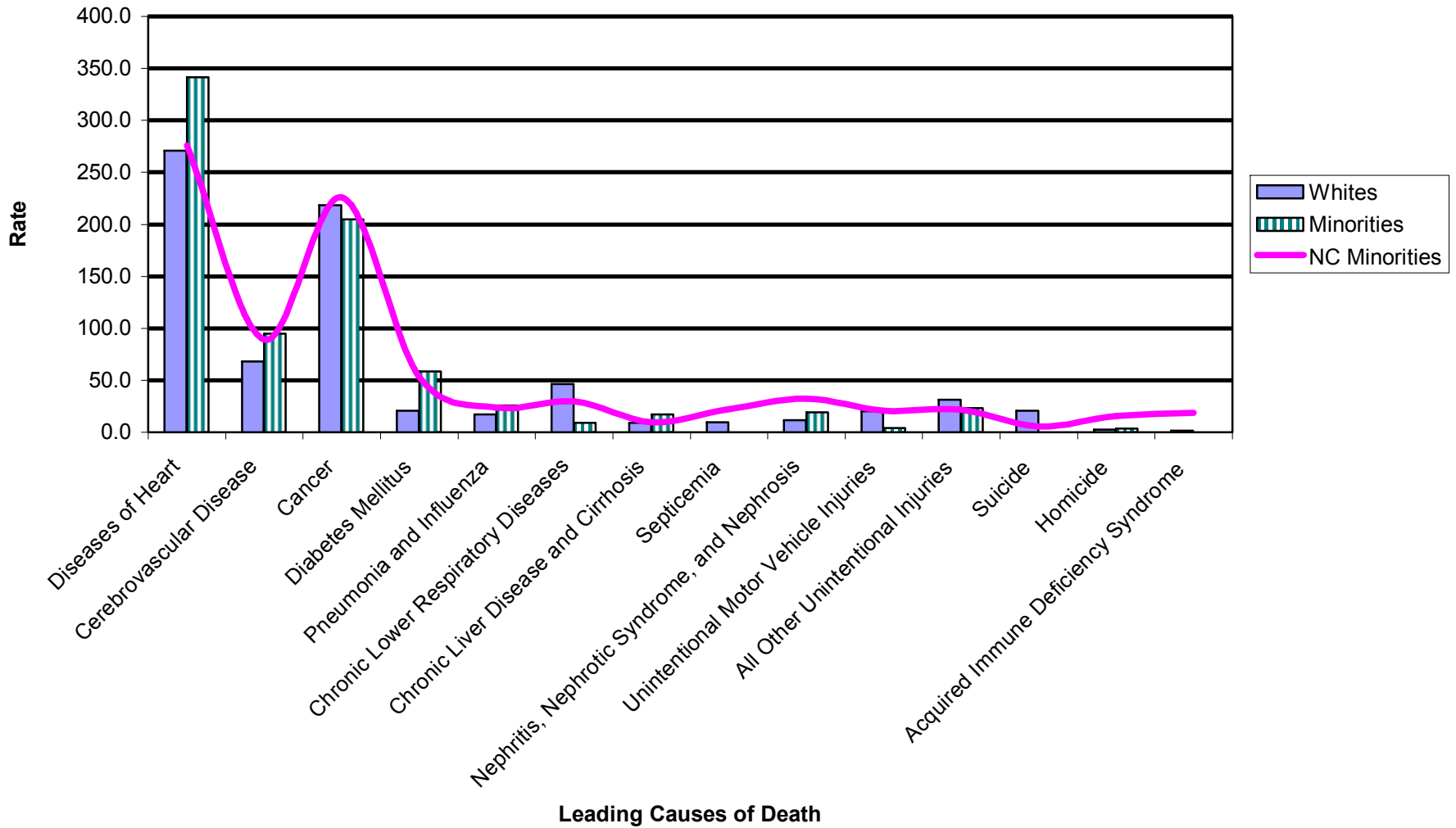
**1993-2003 Sex-Specific Age-Adjusted Mortality Rate for Carteret County  
( Appendix C )**



**1993-2003 Sex-Specific Age-Adjusted Mortality Rates for Carteret County  
( Appendix D)**



## 1993-2003 Race Specific Age-Adjusted Mortality Rate for Carteret County ( Appendix E)



**1993-2003 Race Specific Age-Adjusted Mortality Rate for Carteret County  
(Appendix F)**

