



ALBEMARLE REGIONAL HEALTH SERVICES  
Partners in Public Health

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Pasquotank • Perquimans • Camden • Chowan • Currituck • Bertie • Gates

2010  
Community Health Assessment  
Gates County

# ALBEMARLE REGIONAL HEALTH SERVICES

Partners in Public Health



A University Health Systems Affiliate



BERTIE MEMORIAL HOSPITAL  
CHOWAN HOSPITAL



Community Health Assessment funding provided by  
Albemarle Regional Health Services,  
Albemarle Hospital Foundation,  
Chowan Hospital Foundation, and  
Bertie Memorial Hospital Foundation

December 1, 2010

Dear Citizens of Gates County:

Our rural network of communities, the diversity of our population, and our continued growth make our county an exciting place to live, work, and learn. These same factors challenge our system of services, which in turn, drive the need for a continuum of programs. The Community Health Assessment allows us to analyze and prioritize our community's needs and strengths with the people of Gates County. With this process, the direction and guidance becomes evident in identifying potential problems that merit focus in order to create healthier communities.

This document provides fundamental steps that will guide us to work together as a community to seek available and needed resources. I would like to personally thank all organizations and individuals that worked together in this effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry L. Parks", with a long horizontal flourish extending to the right.

Jerry L. Parks, MPH  
Health Director

# 2010 Gates County Community Health Assessment

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# Introduction

## Community Health Assessment Purpose

Local public health agencies in North Carolina (NC) are required to conduct a Comprehensive Community Health Assessment once every four years. This community health assessment (CHA), which is comprised of both a process and a document, is intended to describe the current health status of the community, what has changed since the past assessment in 2006, and what still needs to change to improve the health of the community. The *process* involves the collection and analysis of a large range of data, including demographic, socioeconomic and health statistics, environmental data, and public and professional opinion. The *document* is a summary of all the available evidence and serves as a resource until the next assessment. Together they serve as the basis for prioritizing the community's health needs, and culminate in planning to meet those needs.

In communities where there is an active Healthy Carolinians partnership, the coalition of partners may coordinate the community assessment process with support from the local health department. Healthy Carolinians is "a network of public-private partnerships across NC that shares the common goal of helping all North Carolinians to be healthy." The members of local coalitions are interested members of the public and representatives of the agencies and organizations that serve the health and human service needs of the local community, as well as businesses, churches, schools and civic groups.

Albemarle Regional Health Services (ARHS), a district health agency, contracted with Mark Smith, PhD. Epidemiologist and Steve Ramsey, both with Guilford County Health Department to assist in collecting and analyzing the primary data for the 2010 Community Health Assessment in all seven counties within its jurisdiction. Through their association with the Public Health Regional Surveillance Team (PHRST) and North Carolina Public Health Preparedness and Response (NC PHP&R), they assisted in the assessment process by coordinating our survey sampling, trained volunteers in the use of GIS handheld units, and helped analyze the survey data. Together, the Albemarle Regional Health Services Assessment Team (ARHSAT), which included representation from each of the three Healthy Carolinians coalitions in the region, developed a multi-phase plan for conducting the assessment. The phases included: (1) a research phase to identify, collect and review demographic, socioeconomic and health data; (2) a survey phase to solicit information and opinion from the general public; (3) a stakeholder interview phase to gather information and opinion from local community leaders and health and human service agencies; (4) a data synthesis and analysis phase; (5) a period of reporting and discussion among the coalition members; and finally, (6) a prioritization and decision-making phase. Upon completion of this work, the ARHSAT has the tools it will need to develop plans and activities that will improve the health and well-being of the seven counties in the region.

Members of the ARHSAT, health department staff and members of the three Healthy Carolinians coalitions in the region, conducted the community survey. Survey participants were asked to provide demographic information about themselves by selecting appropriate responses from lists describing categories of age, gender, race and ethnicity, marital status, education level, employment status, household income, household size, and primary caretaker information. This demographic information was

collected in order to assess how well the survey participants represented the general population in each of the participating counties. Other survey items sought participants' opinions on; Quality of Life statements, Community Health; Behavioral and Social Problems, Personal Health, Emergency Preparedness, and Demographic Characteristics. Participants also were asked questions about their personal health and health behaviors. All responses were kept in confidence and not linked directly to the respondents in any way.

## **Secondary Data Methodology**

In order to learn about the specific factors affecting the health and quality of life of Albemarle Region residents, two UNC-Chapel Hill Masters in Public Health graduate students, as part of their practicum, consulted numerous readily available secondary data sources.

For secondary data sources, data on the demographics, economic, and social characteristics of the community sources included:

- Administration for Children and Families
- Annie E. Casey Foundation Kids Count Data Center
- Federal Deposit Insurance Corporation (FDIC), Regional Economic Conditions (RECON)
- NC Child Advocacy Institute
- NC Coalition against Domestic Violence
- NC Court System, Domestic Violence Issues in District Court Civil Cases
- NC Department of Commerce, County Tier Designations
- NC Department of Commerce, Economic Development Network, County Profiles
- NC Department of Crime Control and Public Safety, Governor's Crime Commission Division
- NC Department of Health and Human Services, Division of Social Services
- NC Department of Justice
- NC Department of Juvenile Justice and Delinquency Prevention
- NC Department of Public Instruction Statistical Profiles
- NC Employment Security Commission
- NC Office of Budget and State Management, Log Into North Carolina (LINC) Database
- NC Rural Economic Development Center
- NC State Center for Health Statistics: Pregnancy Risk Assessment Monitoring System (PRAMS) Data
- US Bureau of Economic Analysis
- US Census Bureau, American Fact Finder
- US Census Bureau, State and County Quick Facts
- US Department of Agriculture, Economic Research Service

The primary source of health data for this report was the NC State Center for Health Statistics (NC-SCHS), including:

- Annie E. Casey Foundation
- Behavioral Risk Factor Surveillance System (BRFSS)
- Cancer Registry
- Carolina Medicare Epidemiologic Data

- Cecil G. Sheps Center for Health Services Research
- County Health Data Books
- Health Statistics Pocket Guides
- Highway Safety Research Center
- National Vital Statistics Report
- NC Communicable Disease Information
- NC Comprehensive Assessment for Tracking Community Health (NC-CATCH)
- NC Department of Health and Human Services, Division of Aging and Adult Services
- NC DHHS Oral Health Section
- NC Division of Medical Assistance
- NC Institute of Medicine (IOM)
- NC Resident Race and Sex-Specific Age Adjusted Death Rates, 2004-2008
- NC Tuberculosis Control
- Vital Statistics

Environmental data were gathered from sources including:

- NC Department of Commerce
- NC Department of Environment and Natural Resources
  - Division of Air Quality
  - Division of Enforcement
  - Division of Environmental Health
  - Division of Waste Management
  - Division of Water Quality
- NC State Laboratory of Public Health
- US Environmental Protection Agency

Other health data sources included:

- National Center for Health Statistics, Healthy People 2010
- Office of Healthy Carolinians
- NC Nutrition and Physical Activity Surveillance System (NC-NPASS)
- NC Child Advocacy Institute

Local hospital (UHS of Eastern NC: Bertie and Chowan Counties) and health department (Albemarle Regional Health Services) data has been included where appropriate.

As applicable, Gates County statistics have been compared with state statistics as well as with four peer counties. These peer counties were identified by the NC-CATCH system using a two-step process in which 1) possible peer counties are selected based upon age, race and poverty characteristics, and 2) the final peer counties are selected from a group of counties within the same population range as the subject county.

For Gates County, the NC-CATCH system identified Caswell, Chowan, Jones, and Swain as peer counties. Therefore, in addition to NC statistics, these four counties were used for comparison throughout part of the assessment process.

ARHSAT analyzed and synthesized all secondary and primary data described above and prepared the final Albemarle Regional Community Health Assessment Reports.

## **Community Health Assessment Acknowledgements**

The Community Health Assessment Team included representatives from all three Healthy Carolinians Partnerships in the region: Healthy Carolinians of the Albemarle, Three Rivers Healthy Carolinians, and Gates Partners for Health. Members also included individuals who work to provide health, wellness, and support to citizens in the Albemarle District. The Community Health Assessment Team met on the second Friday of each month starting November 2009 to create a plan for conducting the health assessment and solving any problems encountered. Leaders included:

### **Amy Underhill**

Health Promotion Coordinator/Healthy Carolinians of the Albemarle Chair  
Albemarle Regional Health Services

Representative for Currituck, Camden, Pasquotank, and Perquimans Counties

- ◆ Amy Underhill coordinated and organized Community Health Assessment Team meetings as well as managed the funds dedicated to the Community Health Assessment project. As the Chair of Healthy Carolinians of the Albemarle, she was responsible for disseminating information about the community health assessment process and progress being made to partnership members. Amy organized volunteers to conduct opinion surveys door-to-door and coordinated the data review and priority selection process for Currituck, Camden, Pasquotank, and Perquimans counties.

### **Ann Roach**

Healthy Carolinians of the Albemarle Coordinator

Representative for Currituck, Camden, Pasquotank, and Perquimans Counties

- ◆ Ann Roach coordinated community health assessment efforts in Currituck, Camden, Pasquotank and Perquimans Counties. As the Coordinator of Healthy Carolinians of the Albemarle, Ann publicized the community health assessment and helped to get as much of the community involved as possible. She gathered numerous volunteers to conduct surveys and also helped coordinate the priority selection process for Currituck, Camden, Pasquotank, and Perquimans counties.

### **Arina Boldt**

Director of Marketing and Data Management/Member of Healthy Carolinians of the Albemarle

Albemarle Health

Representative for Currituck, Camden, Pasquotank, and Perquimans Counties

- ◆ Arina Boldt attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. She also helped in the data analysis and priority selection process for the four counties under Healthy Carolinians of the Albemarle.

### **Ashley H. Stoop**

Preparedness Coordinator & Safety Officer

Albemarle Regional Health Services

Representative for all seven counties

- ◆ Ashley Stoop was a major asset to the Community Health Assessment Team and supplied much appreciated experience with the community health assessment

process, survey collection using two-stage cluster sampling and use of GIS software and equipment. Through her connections with PHRST teams and other Preparedness Coordinators across the state, she arranged for the use of state and neighboring counties' GIS equipment to be used by volunteer survey collectors. She also contributed educational materials regarding emergency preparedness and travel sized bottles of hand sanitizer that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey.

Ashley Mercer

Public Health Education Specialist/Member of Healthy Carolinians of the Albemarle  
Albemarle Regional Health Services

Representative for Pasquotank and Perquimans Counties

- ◆ Ashley Mercer attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. She greatly contributed to the collection of opinion surveys in all seven counties. As a member of Healthy Carolinians of the Albemarle, she also played an integral part in the data analysis and priority selection process for Perquimans and Pasquotank counties.

Cathie Williams

Public Health Dental Hygienist/Member Healthy Carolinians of the Albemarle  
NC Oral Health Section

North Carolina Public Health

Representative for Camden, Currituck, Pasquotank and Perquimans

- ◆ Cathie Williams attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. She greatly contributed to the collection of opinion surveys in Pasquotank and Camden counties. She donated toothpaste and sugar-free gum that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. As a member of Healthy Carolinians of the Albemarle, she also played an integral part in the data analysis and priority selection process for all four counties.

Dana Hamill

Public Health Education Specialist/Albemarle Regional Health Services

Representative for all seven counties

- ◆ Assisted with the facilitation and organization of Community Health Assessment Team Leader meetings as well as participated in CHA Call-In meetings, assisted with CHA Data workgroups for Perquimans, Pasquotank, Camden, Chowan, and Bertie counties. She also assisted with data analysis and the priority selection process for Healthy Carolinians of the Albemarle and Three Rivers Healthy Carolinians.

Esther Lassiter

Gates Partners for Health Director

Representative for Gates County

- ◆ Esther Lassiter coordinated community health assessment efforts in Gates County. As the Director of Gates Partners for Health, Esther publicized the community health assessment and helped to get as much of the community involved as possible. She contributed Gates Partners for Health information and prizes that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. She gathered numerous volunteers to conduct surveys door-

to-door and finished the survey process in Gates County in two days. She also coordinated the data analysis and priority selection process for Gates County.

Fae Deaton

Spokeswomen for Woman's Heart Health/Member of Healthy Carolinians of the Albemarle

Representative for Currituck, Camden, Pasquotank, and Perquimans Counties

- ◆ Fae Deaton attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. She contributed heart health educational materials that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. As a member of Healthy Carolinians of the Albemarle, she also provided a strong voice to the group during the data analysis and priority selection process for Currituck, Camden, Perquimans, and Pasquotank Counties.

Hunter Balltziglier

Wellness Coordinator/Member of Three Rivers Healthy Carolinians

University Health Systems - Chowan and Bertie Memorial Hospitals

Representative for Chowan and Bertie Counties

- ◆ Hunter Balltziglier attended Community Health Assessment Team Meetings and assisted in making decisions concerning the assessment process. He contributed educational materials regarding the services provided through University Health Systems that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. Hunter participated in the opinion survey collection process and provided a strong voice when Three Rivers Healthy Carolinians selected their priority health issues.

Jill Jordan

Health Education Director, Public Information Officer Albemarle Regional Health Services

Representative for all seven counties

- ◆ Jill Jordan attended Community Health Assessment Team Meetings and assisted in making decisions concerning the assessment process. As the Public Information Officer for Albemarle Regional Health Services, Jill also handled all media releases, including press releases and news articles regarding the Community Health Assessment. She also supplied an appreciated opinion to Three Rivers Healthy Carolinians as they analyzed the data and chose priority health issues for Bertie and Chowan counties.

Juanita Johnson

Director of Community Case Management/Member of Healthy Carolinians of the Albemarle

Community Care Clinic of Pasquotank County

Albemarle Health

- ◆ Juanita Johnson attended Community Health Assessment Team Meetings and assisted in making decisions concerning the assessment process.

Kaley Goodwin

Public Health Education Specialist/Member of all three Healthy Carolinians Partnerships

Albemarle Regional Health Services

Representative for all seven counties

- ◆ Kaley Goodwin coordinated and organized the Community Health Assessment Team, as well as managed the primary and secondary data collection process for all seven counties. She was responsible for collecting opinion survey information, door-to-door in each county. She also provided information about the community health assessment process and progress being made during Three Rivers Healthy Carolinians and Gates Partners for Health meetings.

Lisa Spry

Public Health Education Specialist/Member of Three Rivers Healthy Carolinians  
Albemarle Regional Health Services

Representative for Bertie and Chowan Counties

- ◆ Lisa Spry attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. She greatly contributed to the collection of opinion surveys in all seven counties. As a member of Three Rivers Healthy Carolinians, she also played an integral part in the data analysis and priority selection process for Chowan and Bertie counties.

Mary Morris

Family/Consumer Education Agent/Three Rivers Healthy Carolinians Chair  
Bertie County Cooperative Extension

Representative for Bertie and Chowan Counties

- ◆ As the Chair of Three Rivers Healthy Carolinians, Mary Morris helped provide updates on the community health assessment process and progress being made to partnership members. Mary volunteered to conduct opinion surveys, door-to-door and played an important part in the data analysis and priority selection process for Chowan and Bertie counties.

Misty Deanes

Clerk to the Board of Commissioners/Member of Three Rivers Healthy Carolinians  
Executive Assistant to the County Manager

Representative for Bertie County

- ◆ Misty Deanes worked to recruit volunteers to participate in the opinion survey data collection in Bertie County. She enlisted several individuals to drive door-to-door, asking residents to complete the survey. Misty also worked to publicize the Community Health Assessment and survey data collection to the residents of Bertie County. As an active member of Three Rivers Healthy Carolinians, Misty provided a valued opinion when looking at the data from Bertie County and selecting health priorities.

Nancy Easterday

Director of Patient Access/Care Coordination  
Albemarle Health

Representative for Pasquotank County and the surrounding area

- ◆ Nancy Easterday attended Community Health Assessment Team meetings and greatly assisted in making decisions concerning the assessment process. She contributed educational materials regarding the services provided through Albemarle Health which were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. Nancy participated in the opinion

survey collection process as well as recruited other volunteers. She also provided a strong voice when selecting priority health issues.

Nancy Morgan

Three Rivers Healthy Carolinians Coordinator  
Representative for Bertie and Chowan counties

- ◆ Nancy Morgan coordinated community health assessment efforts in Bertie and Chowan counties. As the Coordinator of Three Rivers Healthy Carolinians, Nancy publicized the community health assessment and helped to get as much of the community involved as possible. She contributed Three Rivers Healthy Carolinians information and prizes that were placed in the reusable bags that were distributed to citizens who participated in the opinion survey. She gathered numerous volunteers to conduct surveys door-to-door. She also coordinated the data analysis and priority selection process for Bertie and Chowan counties.

Rich Olson

City Manager/Member of Healthy Carolinians of the Albemarle  
Representative for Pasquotank County

- ◆ Rich Olson attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. His wealth of knowledge in statistics was invaluable in deciding the sampling method used to gather opinion survey data as well as analyzing data and choosing priority health issues in Pasquotank County.

Wesley Nixon

Environmental Health Specialist  
Albemarle Regional Health Services  
Representative for all seven counties

- ◆ Wesley Nixon attended Community Health Assessment meetings and assisted in making decisions concerning the assessment process. Wesley served as the technical advisor for the survey collection process in all seven counties. In this role, he organized and kept track of all GIS/GPS hardware, compiled and saved all of the opinion survey data collected, and served as technical assistance to survey collection volunteers in the field.

Zary Ortiz

Director of Hispanic Service/Member of Healthy Carolinians of the Albemarle  
Northeastern Community Development Corporation  
Representative for Camden, Currituck, Pasquotank, and Perquimans counties

- ◆ Zary Ortiz attended Community Health Assessment Team meetings and assisted in making decisions concerning the assessment process. As an active member of Healthy Carolinians of the Albemarle, she also participated in analyzing data and selecting the most important health priorities for the Healthy Carolinians Partnership.

**Survey Collection Volunteers for Gates County:**

- Sandra Nickens
- Glendale Boone
- Thelma Raysor
- Brenda Norfleet
- Jacqueline Sears
- Delores Williams

2010 Gates County Community Health Assessment

- Esther Lassiter
- Fred Harvey
- Robert Williams
- Virginia Harris
- Daniel Bowser
- Malcolm Sears
- Gayle Johnson
- Mary Wiggins
- Deborah Gatling
- Sharon Gatling
- Sherman Lassiter
- Carolyn Wiggins
- Larry Davis
- Esther Dildy
- Shirley Johnson
- Wesley Boone
- Ronald Williams
- Kay Wiggins
- Ashley Mercer
- Kaley Goodwin

**Community Health Assessment Data Analysis Team**

- |                        |                                        |
|------------------------|----------------------------------------|
| • Crystal M Smith      | Facilitator                            |
| • Henry Jordan         | Board of Commissioners                 |
| • Glendale Boone       | Board of Education                     |
| • Denise Miller        | Day Cares                              |
| • Carolyn Wiggins      | CHA Survey Volunteer                   |
| • Colleen Turner       | Dept. of Social Services               |
| • Marsha Langston      | Gates Partners for Health              |
| • Jo Ann Powell        | Roanoke-Chowan Community Health Center |
| • Ameshia Holland      | NC Cooperative Extension Services      |
| • Patrice Lassiter     | Gates Inter-Transit System (GITS)      |
| • Mildred Louise Brown | Retired Community                      |
| • Sylvia Boone         | Gates County Medical Center            |
| • Lulu Eure            | Gates County Community Center          |

**\*\*Throughout the assessment, you will find highlighted writing that specifies Gates Partners 4 Health community resources, programs, and/or trainings that are provided to Gates County residents that address specified health problems.\*\***

# **Chapter One**

## **Gates County Community Profile**

# Chapter One

## Gates County Community Profile

### Geography

Gates County is located in northeastern North Carolina, in the Coastal Plain region of the state. It is characterized by swamp in the east and flat plains and woodlands with shallow stream valleys throughout the rest of the county. The county contains miles of waterfront along the Chowan River. The Great Dismal Swamp to the east is one of the county's largest natural preserves. The nearest metropolitan area is Norfolk, VA, which is located 55 miles to the north. The county is 157 miles east of Raleigh, and 251 miles northeast of Wilmington. Gates County is approximately 50 miles from the Outer Banks.

Gates County's western border is shared with Hertford County. To the east, Gates County borders Camden and Pasquotank counties. To the north, the county borders the state of Virginia and to the south, borders Chowan and Perquimans counties running from west to east, respectively (Figure 1).

There are seven townships in Gates County. Holly Grove is the most populated township in the county. Gatesville Township is the county seat (1).

The nearest interstate highway is I-95, 63 miles west of the county. US Highways 158 and 13 run through Gates County. Highway 158 goes south to the Albemarle Sound and northwest to Elizabeth City. Both Highway 158 and 13 join US Highway 64, which leads to the Outer Banks going east and Raleigh going west.

The nearest airport offering commercial passenger service is Norfolk Airport, located 60 miles north in Norfolk, VA. US Highway 64 provides access to the Raleigh-Durham International Airport located 157 miles to the west. The Tri-County Airport in Ahoskie serves commuter and recreational fliers. Newport News, VA is the closest stop on any passenger railway system (2); the nearest Greyhound Lines stop is Edenton, NC (3).

The county's physical area totals approximately 346 square miles of which 341 square miles are land and five square miles are water. The county has 84 miles of paved roads. No Gates County residents live within 10 miles of an entirely four-lane highway (4).

The county's elevation ranges from near sea level in the eastern section to 85 feet in Gatesville. Gates County has a relatively mild climate with an annual mean temperature of around 60.3 degrees. The average annual precipitation is approximately 49 inches (5).

## **History**

From the official Gates County website:

Before the settlement of this area by the Europeans, the Nansemond, Chesapeake, Chowanoc/Chowanoke, Meherrin and the Nottoway Indians made their homes here. They were a peaceful people, but once the settlers made their way into the area, unfortunately their days were numbered. After 1711, few Native Americans were found in the county, although there is a large population of Meherrins living in Hertford, Bertie, Gates, and Northampton counties. It is not uncommon to find traces of these gentle people left behind in the fields of the county. Arrowheads and pottery shards are often found in open fields and along riverbanks.

In the early years of settlement, pioneers had to try to make a living off of land that was riddled with swamps and sandy soil that would not produce. The landscape made many pass to areas further south where land was richer, and had fewer wetlands. Those who stayed behind were very strong and resourceful.

Many of the surnames represented in the county today originated from some of the earliest pioneers. Names like Brinkley, Eure, Riddick, Benton, Lane, Cowper, Cross and Norfleet, among many others, were the same names that George Washington and other notable Americans were familiar with when they passed through the area in the early days of this area's history.

From 1728 through 1780, the area grew from a thick wooded and inhospitable land to an agrarian community with many of the same resources that many surrounding areas had. However, the physical characteristics made it difficult to grow into a prosperous urban center, because there were few navigable waterways.

The main commerce was in hogs sold in Nansemond Co., tar (pine pitch) made from the pine forests of the county, and timber from the thick virgin forests.

In 1779, the area between the Chowan River to the West and Southwest, South of the county of Nansemond, Va., West of the Dismal Swamp and North of Catherine Creek and Warwick Creek was separated into a county all its own. The physical land barriers of swamps or rivers made it difficult for residents of this area to travel to government seats in bad weather, and it was for this reason, among others, that Gates County became an entity of its own.

Gates County was named for General Horatio Gates, a Revolutionary War hero. As commanding general at the Battle of Saratoga in 1777, he delivered one of the most damaging blows yet felt by English forces in the war. However, in 1780, his failure at the disastrous Battle of Camden transformed him from one of the Revolution's most esteemed soldiers into one of its most controversial.

In 1780 a courthouse, prison, and stocks were built in Gatesville, at that time known as Gates Court House.

In 1830-1831, the Legislature passed an act, which changed the name of the county seat from Gates Court House to Gatesville. In 1836, the Federal style courthouse was

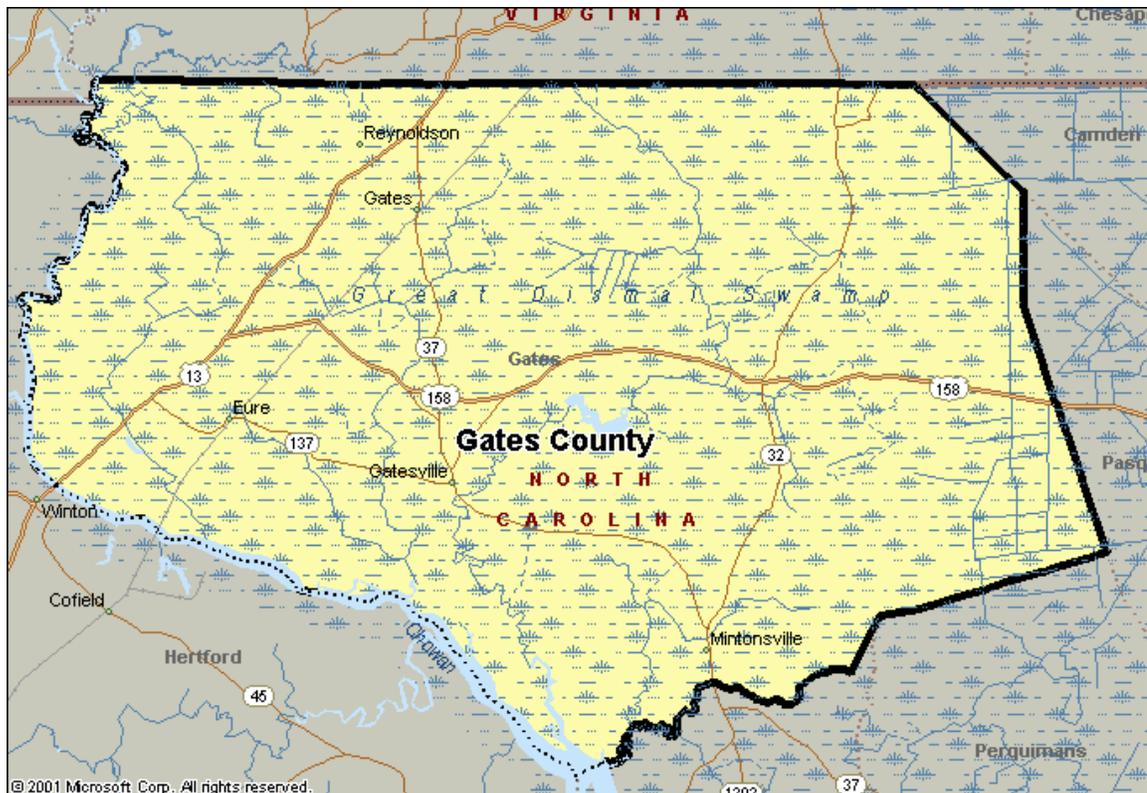
built, which now houses the Gates County Public Library and Gates County Historical Society.

In the last quarter of the 19th century, the railroad opened Gates County to new opportunities. Shipment by rail was more efficient and allowed logging operations to move timber cheaply to markets, farmers to ship produce more readily, and small towns to burgeon into prosperous communities. It remained this way until the railroads stopped running through the county in 1979, after highways made truck shipment cheaper than the rails.

Gates County has remained close to the same since it was formed in 1778. Other than obvious changes in technology, Gates still relies on the agriculture and timber industry more than any other commercial enterprise. Six of the nine largest manufacturers in the county all rely on the timber businesses, while the majority of jobs are in the Public School System.

Many things haven't changed much since the late 18th century. The county's population has not doubled in over 200 years. In 1790, there were 5,372 people living in Gates County as compared to the 10,720 in the year 2002. That only adds to the small town feeling of this tight knit community, and the hospitality of the early pioneers is still present in the current residents, as is the resilience and perseverance of their forebears (6).

Figure 1



## Demographics

- In 2004, Gates County had an estimated permanent population of 10,936 persons, a population only one-eighth that in the average North Carolina county (Table 1).
- Like the state as a whole, Gates County's population is increasing. Between 1990 and 2000, Gates County's population increased by 13%, while the average NC County population grew by more than 21%.

According to 2000 Census data:

- The Gates County population was predominately white, but minorities represented a higher proportion of the county population (40.9%) than is typical in the average NC county (27.9%).
- In 2000, the median age of Gates County residents was 38.1 years, almost three years older than the median age for the state, 35.5.
- People over the age of 65 made up 14% of the Gates County population and 12% of the total NC population.
- Children under the age of five were much less numerous in Gates County than in the average NC County, and represented a somewhat similar proportion of the population: 5.8 % vs. 7%.
- Gates County has had a consistently smaller population when compared to the average NC county, and the difference is widening each decade as the rest of the state is growing at a faster rate than the county (Table 1).
- The rate of population increase in Gates County is expected to slow considerably by 2010 (Table 1).

**Table 1. Population Growth Comparison (years as noted)**

County	Number of Persons							
	1980	1990	% Change 1980-1990	2000	% Change 1990-2000	2005 (Est.)	2010 (Est.)	% Change 2000-2010
Gates	8,875	9,305	4.9	10,516	13.0	11,071	11,621	10.3
State Total	5,880,095	6,632,448	12.8	8,046,485	21.3	8,709,947	9,441,440	17.3
NC County Avg.	58,801	66,324	n/a	80,465	n/a	87,099	94,414	n/a
Source	a	a		b	b	a	a	

a - Log Into North Carolina (LINC) database, <http://linc.state.nc.us>; some % change was calculated  
 b - US Census Bureau (North Carolina QuickFacts available at: <http://quickfacts.census.gov>)

- Following the increasing trend in population, the Gates County population distribution is becoming denser, as is the population in the state as a whole (Table 2).
- Gates County is and has been consistently less densely populated than the average county.
- By 2010, the average NC County is predicted to be almost six times more densely populated than Gates County (Table 2).

**Table 2. Population Density (1980-2010)**

County	Persons per Square Mile							
	1980		1990		2000		2010 (Est.)	
	Population	Density	Population	Density	Population	Density	Population	Density
Gates	8,875	26.2	9,305	27.3	10,516	30.9	11,621	34.1
State Total	5,880,095	n/a	6,632,448	n/a	8,046,485	n/a	9,441,440	n/a
NC County Avg.	58,801	120.4	66,324	136.1	80,465	165.2	94,414	193.8

Source Log Into North Carolina (LINC) database, <http://inc.state.nc.us>

- While North Carolina becomes more urban in nature, Gates County is becoming steadily more rural, with 63% of the population considered to be in rural areas; only about 40% of North Carolina’s population is considered rural.
- Holly Grove is the largest township in Gates County, accounting for over 17% of the county’s population. The next largest township is Gatesville, accounting for another 16.8% of the county’s population. The least populated township is Mintonville.
- The “oldest” townships are Gatesville and Mintonville with median ages of 39.6 and 39.4 respectively; Haslett Township has the youngest median age, 35.7 (Table 3).

**Table 3. Gates County Population by Township (2000)**

Township	Number	Percent	Median Age
Gatesville	1,765	16.8	39.6
Hall	1,434	13.6	39.3
Haslett	1,530	14.5	35.7
Holly Grove	1,855	17.6	37.7
Hunters Mill	1,301	12.4	38.4
Mintonville	1,021	9.7	39.4
Reynoldson	1,610	15.3	37.7
TOTAL/Average	10,516	100.0	38.3

Source: US Census Bureau, American Fact Finder, Data Sets, Summary File 1, Quick Tables, County Subdivision, Chose NC and county, then add applicable townships. Highlight Table DP-1 (Profile of General Demographic Characteristics 2000). <http://factfinder.census.gov>

**Figure 2. Gates County Township Map**



- As detailed in Table 4 Gates County is primarily white, with minorities making up 40.9% of the population in 2000.
- Gates County has a higher proportion of African Americans than NC as a whole. The proportion of Latino residents is considerably lower than the statewide county average.

**Table 4. Population Distribution by Race/Ethnicity (2000)**

County	Number and Percent												
	Total	White		Black		Native American		Asian		Other		Hispanic Origin	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Gates	10,516	6,213	59.1	4,120	39.2	44	0.4	26	0.2	11	0.1	81	0.8
State Total	8,046,485	5,804,656	n/a	1,737,545	n/a	99,551	n/a	113,689	n/a	186,629	n/a	378,963	n/a
NC County Avg.	80,465	58,047	72.1	17,375	21.6	996	1.2	1,137	1.4	1,866	2.3	3,790	4.7

Source US Census Bureau, 2000 Census, [http://www2.census.gov/census\\_2000/datasets/demographic\\_profile/North\\_Carolina/2kh37.pdf](http://www2.census.gov/census_2000/datasets/demographic_profile/North_Carolina/2kh37.pdf)

- The population in Hall Township is 81.9% white; in Gatesville and Reynoldson Townships the population is 58.2% and 52.0% African American respectively (Table 5).
- Holly Grove has the greatest concentration of Hispanics (1.7%).

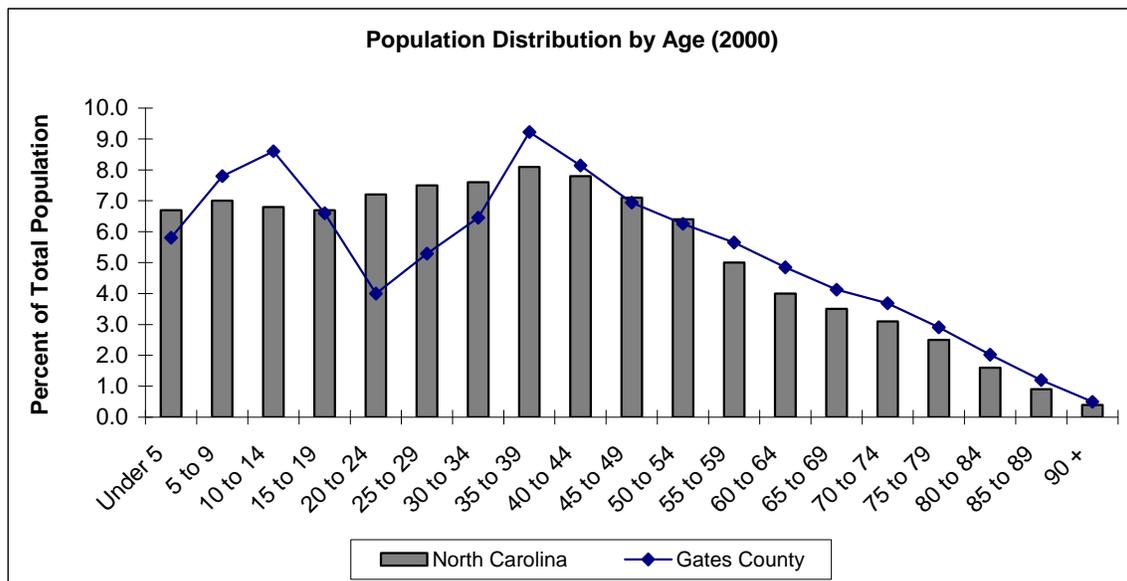
**Table 5. Gates County Residents by Race, by Township (2000)**

Township	White		Black/African American		American Indian/ Alaska Native		Asian		Native Hawaiian or Other Pacific Islander		Hispanic/	Latino
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gatesville	715	40.5	1,027	58.2	4	0.2	4	0.2	0	0.0	5	0.3
Hall	1,174	81.9	242	16.9	6	0.4	5	0.3	0	0.0	7	0.5
Haslett	1,009	65.9	488	31.9	13	0.8	1	0.1	0	0.0	14	0.9
Holly Grove	1,342	72.3	458	24.7	9	0.5	11	0.6	0	0.0	32	1.7
Hunters Mill	623	47.9	657	50.5	1	0.1	1	0.1	2	0.2	5	0.4
Mintonville	601	58.9	410	40.2	1	0.1	3	0.3	1	0.1	10	0.1
Reynoldson	749	46.5	838	52.0	10	0.6	1	0.1	0	0.0	8	0.5

Source Demographic Characteristics 2000. <http://factfinder.census.gov>

- The largest age segment of the population in Gates County, as well as North Carolina, is the 5-19-year-old group, representing 23.8% of the Gates County population and 21.5% of the NC population. The adult age group 35-44 is the next largest segment of the county population, 17.4%.
- Residents 20-24 years of age compose the smallest portion of the population in Gates County, accounting for 4% of the population; while in NC, children ages 0-4 compose the smallest portion of the state population (6.7%).
- The age distribution of Gates County differs from the age distribution in North Carolina as a whole: Gates County has a larger proportion of people aged 5-14, 35-44, 55-90 and a smaller proportion of people aged 0-4, 15-34 and 45-54 (Figure 3).

**Figure 3**



Source: US Census Bureau, 2000, American Fact Finder, Data Sets, Summary File 1, Quick Tables, Select areas, Table QT-P1 (Age Group and Sex 2000), <http://factfinder.census.gov>

- Table 6 provides a breakdown of the number and percent of people in each age group, for both Gates County and the state.

**Table 6. Demographic Profile of Population by Age and Sex (2000)**

Age Group	Gates County						North Carolina		
	Number			Percent			Percent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	10516	5155	5361	100.0	49.0	51.0	100.0	100.0	100.0
Under 5	605	310	295	5.8	6.0	5.5	6.7	7.0	6.4
5 to 9	816	413	403	7.8	8.0	7.5	7.0	7.3	6.7
10 to 14	907	475	432	8.6	9.2	8.1	6.8	7.1	6.6
15 to 19	698	363	335	6.6	7.0	6.2	6.7	7.0	6.4
20 to 24	423	237	186	4.0	4.6	3.5	7.2	7.7	6.7
25 to 29	556	247	309	5.3	4.8	5.8	7.5	7.8	7.2
30 to 34	679	342	337	6.5	6.6	6.3	7.6	7.8	7.4
35 to 39	970	447	523	9.2	8.7	9.8	8.1	8.3	8.0
40 to 44	856	443	413	8.1	8.6	7.7	7.8	7.9	7.8
45 to 49	730	372	358	6.9	7.2	6.7	7.1	7.0	7.1
50 to 54	658	310	348	6.3	6.0	6.5	6.4	6.3	6.4
55 to 59	594	301	293	5.6	5.8	5.5	5.0	4.9	5.1
60 to 64	510	256	254	4.8	5.0	4.7	4.0	3.9	4.2
65 to 69	434	203	231	4.1	3.9	4.3	3.5	3.3	3.7
70 to 74	387	175	212	3.7	3.4	4.0	3.1	2.8	3.5
75 to 79	306	124	182	2.9	2.4	3.4	2.5	2.0	3.0
80 to 84	213	71	142	2.0	1.4	2.6	1.6	1.1	2.0
85 to 89	122	50	72	1.2	1.0	1.3	0.9	0.5	1.2
90 +	52	16	36	0.5	0.3	0.7	0.4	0.2	0.7

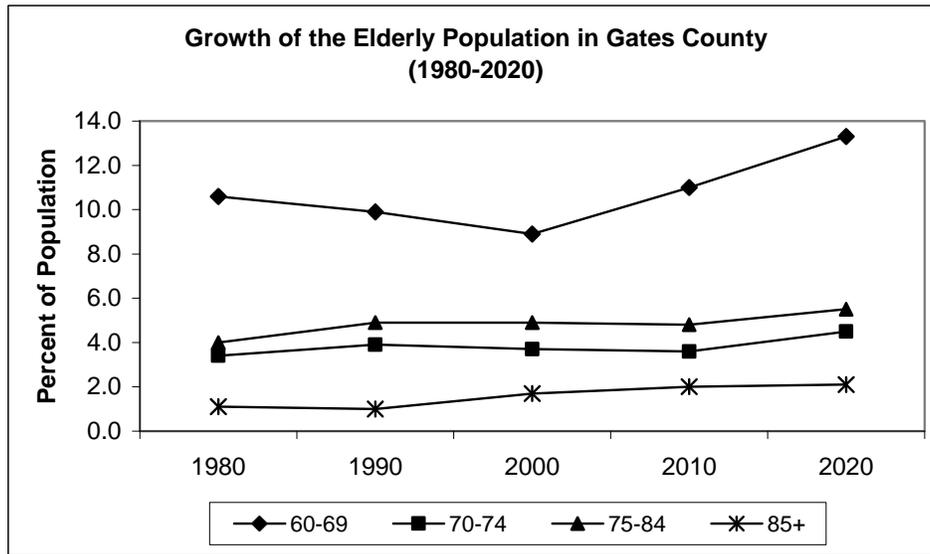
Source US Census Bureau, American Fact Finder, Data Sets, Summary File 1, Quick Tables, Select areas, Table QT-P1 (Age Groups and Sex 2000). <http://factfinder.census.gov>

## Older Adults

### Growth of the Elderly Population

- As of the 2000 Census, 14.4% of the Gates County population was over the age of 65.
- As demonstrated in Figure 4, the population of adults over the age of 60 in Gates County is growing and is expected to continue to increase over the next 20 years.
- The proportion of elderly residents in most categories in Gates County decreased between the 1990 and 2000 Censuses, but all categories are expected to increase between 2000 and 2020. During this period, the population of residents between the ages of 60 and 69 is expected to increase by 49%, making it the fastest growing segment of the elderly population in the future.
- The percent of the population aged 70-74 is predicted to increase by 22% between 2000 and 2020, while the segment aged 75-84 and 85 and older could increase by 12% and 24%, respectively.

**Figure 4**



Source: Log into North Carolina (LINC) database, Topic group: Population and Housing., Select: Population Ages, 60-64, 65-69, 70-74, 75-79, 80-84, 85 and over, <http://linc.state.nc.us>.

### Location of the Elderly Population

- Gatesville Township has the largest number and highest proportion of adult residents over the age of 65.
- In four townships in Gates County, adults aged 65 and older represent more than 15% of the population. In North Carolina, only 12% of the population is made up of adults aged 65 and older.

**Table 7. Gates County Population of Adults Age 65 and Older, by Township (2000)**

Township	Number	% of Township Population
Gatesville	307	17.4
Hall	220	15.3
Haslett	161	10.5
Holly Grove	232	12.5
Hunters Mill	214	16.4
Mintonville	157	15.4
Reynoldson	233	13.9
TOTAL	1,514	14.4

Source US Census Bureau, American Fact Finder, Data Sets, Summary File 1, Quick Tables, County Subdivision, Select areas, Table DP-1 (Profile of General Demographic Characteristics 2000). <http://factfinder.census.gov>.

## **Characteristics of the Elderly Population**

Characteristics of the elderly persons in a county can help service providers understand how this population can or cannot access and utilize services. Factors such as educational level, mobility and disability are all useful predictors of service access and utilization. The NC Division of Aging (7) collects and catalogues information about factors like these on the county level. Some of the Division's US Census Bureau-derived data on Gates County – and comparable data for the state of North Carolina as a whole – are summarized below.

### ***Educational Attainment***

- Elderly persons in Gates County tend to be less educated than their counterparts elsewhere in North Carolina. In Gates County 52.7% of persons age 65 and older *lack* a high school diploma, compared to a figure of 41.6% for the state as a whole. In addition, 27.2% of persons aged 45-64 in Gates County *lack* a high school diploma, compared to 19.9% for the state as a whole.

### ***Living Conditions***

- With regard to home ownership, the figures for the elderly population in Gates County are higher than for the state as a whole: in Gates County approximately 87% of residents aged 45-64 and 89% of residents age 65 or older are homeowners. The comparable figures statewide are approximately 80% and 82%, respectively.

### ***Mobility***

- The elderly population in Gates County has a higher proportion of persons with disabilities than in North Carolina as a whole. According to 2000 US Census figures, 22.3% of persons age 65 or older in Gates County reported having one disability; 34.5% of the same population reported having two or more disabilities. These percentages compare to respective statewide figures of 20.6% and 25.1%. The US Census bureau of disability includes any long-lasting physical, mental or emotional condition that can make it difficult for persons to walk, climb stairs, dress, bathe, learn or remember.
- Significantly higher proportions of Gates County residents in their early retirement years are without a car as compared to similar data for North Carolina as a whole. In Gates County, 13.3% of householders between the ages of 65 and 74 do not have an automobile. This percentage compares to a statewide figure of 9.0%. In the age categories 55-64 and 75 or older, the county and statewide proportions of population without a car are similar.

## **Non-English Speaking Population**

North Carolina has seen continuous growth in the number of foreign-born residents, with this segment of the population increasing from 39,382 in 1969 to 430,000 in 2000, an almost 11-fold increase. According to demographers, this official count is likely an underestimate, since many in this population do not participate in the Census. The foreign-born population in a community is one that potentially does not speak English, and so is of concern to service providers.

- As of the 2000 Census, there were 117 foreign-born residents in Gates County, making up 1.1% of the total county population at that time.
- As of 2000, 270 individuals, or 1.2% of the Gates County population, reported they spoke Spanish at home, making Spanish the most commonly spoken language other than English in the county (8). However, of the Gates County residents who reported speaking Spanish, 63% said they speak English “very well” (8).

## Commuting Patterns

- The percentage of Gates County workers commuting out of the county to work increased between 1990 and 2000, while the percent leaving the state to work decreased. During that period, a much higher percentage of the Gates County workforce left the county for work (i.e., traveled to a job in another county or state) than that in the average NC County. In fact, in 2000 a large majority (65%) of workers living in Gates County did not work in the county (Table 8).

**Table 8. Worker Commuting Patterns (1990 and 2000)**

County	Number and Percent of Persons													
	1990							2000						
	Total # of Workers over 16	# Working Out of County	% Working Out of County	# Working Out of State	% Working Out of State	Total # Leaving County for Work	Total % Leaving County for Work	Total # of Workers over 16	# Working Out of County	% Working Out of County	# Working Out of State	% Working Out of State	Total # Leaving County for Work	Total % Leaving County for Work
Gates	3,876	710	18.3	1,691	43.6	2,401	61.9	4,266	1,068	25.0	1,717	40.2	2,785	65.3
State Total	3,300,481	657,483	n/a	60,323	n/a	717,806	n/a	3,837,773	936,047	n/a	75,604	n/a	1,011,651	n/a
NC County Avg.	33,005	6,575	19.9	603	1.8	7,178	21.7	38,378	9,360	24.4	756	2.0	10,117	26.4

Source: US Census Bureau, 1990 Census, 2000 Census. <http://www2.census.gov>

## Socioeconomic Climate

In 2010, Gates County was state-designated as a Tier One county, which indicates, among other factors, that it is among the economically poorest 20% of counties in North Carolina.

### Income

According to data in Table 9, in 2005, Gates County residents had a median per capita income that was \$8,314 (26%) lower than the state average. The median household income in Gates County was 12% lower than in the average North Carolina County.

**Table 9. Income (2005)**

County	2010 Tier Design	Per Capita Personal Income (2005)	Per Capita Income Difference from State	Median Household Income (2005)	Median Household Income Difference from State
Gates	1	\$23,920	-\$8,314	\$39,219	-\$5,222
NC	n/a	\$32,234	n/a	\$44,441	n/a
Source	a	b	calculated	b,c	calculated
a - NC Department of Commerce, County Tier Designation, <a href="http://www.nccommerce.com">http://www.nccommerce.com</a> b - NC Department of Commerce, Economic Development, County Profiles. <a href="http://cmedis.commerce.state.nc.us/countyprofiles">http://cmedis.commerce.state.nc.us/countyprofiles</a> c - US Census Bureau, <a href="http://www.census.gov/hhes/www/income/statemedfaminc.html">http://www.census.gov/hhes/www/income/statemedfaminc.html</a>					

## Employment

The term *labor force* includes all persons over the age of 16 who, during the week, are employed, unemployed or in the armed services. The term *civilian labor force* excludes the Armed Forces from that equation. Civilians are considered *unemployed* if they are not currently employed but are available for work and have actively looked for a job within the four weeks prior to the date of analysis. Those who have been laid off and are waiting to be called back to their jobs as well as those who will be starting new jobs in the next 30 days are also considered “unemployed”. *The unemployment rate* is calculated by dividing the number of unemployed persons by the number of people in the civilian labor force. *Employment growth* is the rate at which net new, non-agricultural jobs are being created.

- Since 2007, Gates County has seen either no employment growth or negative employment growth each year.
- The recent recession initially affected Gates County more than the state as a whole. In 2008, the county had an employment change of -4.8% while the state as a whole had a change of only -0.7%. However, in 2009 the loss of jobs slowed somewhat in Gates County while it accelerated in the state as a whole.

Table 10 details the various categories of industry in Gates County and North Carolina.

- Retail trade is the largest reported industry in Gates County, accounting for 8.9% of the labor force. In the state, manufacturing is the largest industry, accounting for 13.2% of the labor force.
- Health care/social assistance is the second largest reported industry in Gates County, employing 8.2% of the labor force; statewide, retail trade is the second largest industry (11.4%).

**Table 10. Gates County Employment by Industry (Third Quarter, 2005)**

Industry	% of Workforce	
	Gates	NC
Accommodation/Food Services	5.5	8.5
Administrative/Waste Services	0.5	0.5
Agriculture/Forestry/Fishing/Hunting	6.2	0.7
Construction	5.3	6.0
Educational Services	0	1.4
Finance/Insurance	2.1	3.8
Health Care/Social Assistance	8.2	10.7
Information	0	1.8
Management of Companies	0	1.7
Manufacturing	5.3	13.2
Other Services (not Public Admin)	3.7	2.5
Professional and Technical Services	3	4.5
Public Administration	na	5.6
Real Estate/Rental Leasing	0	1.3
Retail Trade	8.9	11.4
Transportation/Warehousing	1.8	2.8
Unclassified	1.1	0.4
Utilities	0	0.3
Wholesale Trade	2.9	4.5

Source: NC Department of Commerce <http://cmedis.commerce.state.nc.us/countyprofiles>

## Unemployment

- In 2010, an average 362 members of the Gates County civilian labor force were unemployed (10).
- Unemployment rates in Gates County have fluctuated over the past decade, with a peak rate of 7.4 in 2009. This rate, however, is below the state rate of 10.6.

## Business Closings and Layoffs

According to data catalogued by the NC Employment Security Commission (11) from newspaper reports and data submitted to the Commission, between 2007 and 2010, there were four reported business closings with affected employees during the period in Gates County, one in 2008 and three in 2009 that affected a total of 93 people. It should be noted that these data are largely anecdotal and as such are likely underestimates.

## **Poverty**

The *poverty rate* is the percent of the population (both individuals and families) whose money income (which includes job earning, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below the threshold established by the Census Bureau.

- The poverty rate in Gates County has been consistently above the comparable state rate since 1980 (Table 11).
- The Gates County poverty rate decreased overall from 1980 to 2003, although it remained above the state rate. In 2008, the county rate increased to 15.7%.

**Table 11. Annual Poverty Rate (1980-2003)**

<b>County</b>	<b>1980</b>	<b>1990</b>	<b>1999</b>	<b>2000</b>	<b>2003</b>	<b>2008</b>
Gates	19.7	15.7	17.0	17.0	13.7	15.7
NC County Average	14.8	13.0	12.3	12.3	13.4	14.6
Source	a	a	b	c	c	b

a - Log Into North Carolina (LINC) database, <http://linc.state.nc.us>  
 b - US Census Bureau, NC Quick Facts  
 c - Economic Research Service, US Dept of Agriculture, 2003 County Level Poverty Rates for NC.  
<http://www.ers.usda.gov/data/povertyrates>  
 \* - The poverty rate is the percent of the population - individuals and families - whose money income (including job earnings, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below the threshold established by the Census Bureau.

## **Poverty and Race**

- Since 1990, poverty rates in Gates County have been consistently highest among the black population, and in 2000 the local poverty rate for Blacks exceeded the comparable state rate by 18%.
- The poverty rate for the white Gates County population increased by 9% between 1990 and 2000, while the rate for the black population increased 17% during this time.
- Statewide, between 1990 and 2000, poverty rates decreased for all populations except "Other".

## **Children in Poverty**

- In 2001, 51% of the children in Gates County Public Schools were receiving free or reduced-cost lunches; in 2005 that figure had increased to 54%; statewide over the same period the percentage increased from 40% to 48% (12).
- In 2008, 15.7% of Gates County residents lived in poverty, a proportion 8% higher than the comparable state proportion, but 20.6% of children under the age of 18 were classified "in poverty", a rate 4% higher than the comparable state rate.
- The proportion of children under the age of 18 in poverty increased in the county and in the state between 2001 and 2008.

- In 2004, Gates County demonstrated a lower proportion of persons in poverty under the age of 18 in comparison with the state as a whole, but by 2008 the poverty rate for children in Gates County surpassed the state rate.
- In past Census periods, the percent of children (under age 6) in poverty in Gates County has been quite high, exceeding the comparable state rate for all of the periods shown in Table 12. However, the Gates County and North Carolina rates shown demonstrate a steady decrease over the entire period.

**Table 12. Children under Age 6 in Poverty (1980-2003)**

County	1980		1990		2000		2003
	Number	%	Number	%	Number	%	Est. %
Gates	238	31.8	198	24.1	164	22.8	22.2
State Total	94,676	n/a	102,822	n/a	113,199	n/a	n/a
NC County Average	947	19.7	1,028	19.1	1,132	17.8	17.5
Source	a	a	a	a	a	a	b

a - Log Into North Carolina (LINC) database, <http://linc.state.nc.us>. Children = Under 6  
 b - Frank Porter Graham Early Childhood Development Institute. Early Childhood Needs and Resources Report 2003, [http://www.fpg.unc.edu/~NCNR\\_Assessment/pdfs](http://www.fpg.unc.edu/~NCNR_Assessment/pdfs); Children = Under 5

## Food Stamps

- Between 2001 and 2009 the number of people on food stamps in Gates County declined overall, however in the five most recent reporting periods (2005 and 2009) the number increased (Table 13).
- According to recent Gates County Department of Social Services data (13) there was an average of 958 food stamp recipients monthly in the county in FY 2005-06.

**Table 13. Food Stamp Recipients (2001-2009)**

County	Average Monthly Number of Food Stamp Recipients								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Gates	701	709	741	1,109	1,012	1,085	1,139	1,177	1,369
State Total	483,015	555,951	624,167	727,710	787,756	842,363	874,426	924,265	1,077,914
NC County Avg.	4,830	5,560	6,242	7,277	7,878	8,424	8,744	9,243	10,779
Source	Log Into North Carolina (LINC) database, <a href="http://linc.state.nc.us">http://linc.state.nc.us</a>								

- Gates County has had a consistently lower percentage of children (under 18) receiving food stamps than the average NC county. While this number has previously fluctuated, more recently it has been increasing in both Gates County and the state.

## **Housing**

- Although the *number* of owned housing units in Gates County increased between 1990 and 2000, the percentage decreased. While the number of owned units was lower in Gates County than in the state, the percent of owned units was higher throughout the reporting period.
- The *percentage* of rental household units in the county decreased over the period even as the number of rental units increased; the number and percent of mobile home units in the county increased.
- In 2000, Gates County had an 18.5% higher percentage of owned homes and a 128% higher percentage of mobile homes than the state as a whole.

## **Affordable Housing**

According to data from the NC Rural Economic Development Center (14):

- 14.8% of the Gates County population at the time was living in “unaffordable” housing; this compares to 20.7% statewide. The Census Bureau defines unaffordable housing as housing that costs more than 30% of the total household income.
- Only 0.1% of Gates County housing units, the same as the percentage statewide, were considered “substandard”, meaning that they were overcrowded (more than one person living in a room) *and* lacking complete indoor plumbing facilities (hot and cold piped water, a flush toilet, and a bath or shower).

There is limited HUD-subsidized housing, public housing or Choice Voucher Section 8-approved housing in the entire Albemarle Region.

- The HUD Homes and Communities web pages and associated links list four single-family HUD-sponsored homes in Gates County (US Housing and Urban Development, Homes and Communities, HUD Homes) (15).
- There is no HUD Public and Indian Housing Authority located in Gates County. HUD PHA offices in the Albemarle Region are in Ahoskie (Hertford County), Edenton (Chowan County), Elizabeth City (Pasquotank County), and Hertford (Perquimans County) (16).
- The only privately owned HUD-subsidized rental housing property in Gates County listed on the HUD website is a group home for the mentally disabled located in Eure, NC (17).

The US Department of Agriculture catalogues information about rental properties available in rural areas (18). According to the USDA, the MFH web site provides an online guide to Government assisted rental projects.

- The most recent listing (September 1, 2010) lists no rental properties in Gates County.

## Homelessness

According to the Albemarle United Way, there are three homeless shelters in the Albemarle Region, all located in Elizabeth City (Pasquotank County).

The state attempts to assess homelessness by periodically sponsoring a point-in-time survey/census. According to the 2005 point-in-time census data submitted on behalf of Gates County, there were thirteen homeless individuals and five homeless families identified in the county at that time (19).

## Children and Families

- As of the 2000 Census, 5.8% of Gates County residents were under the age of 5.
- Approximately 27% of residents were under the age of 18.
- The largest *number* of children live in Holly Grove Township, but Haslett Township has the highest proportion of children (30.7%).
- The location with the lowest proportion of children is Gatesville Township (25.1%).

## Single Parent Families

- The percent of homes with single parents increased between 1990 and 2000 in Gates County and the state (Table 12). The increase was 53% in the county and 21% statewide.
- When compared to the state, Gates County has about one-third the proportion of single parent homes.
- The number of homes with single fathers in Gates County and the state doubled between 1990 and 2000. In 2000, the percentage of homes headed by a single male was slightly higher in Gates County than the state average.
- The number and percentage of homes with single mothers increased 42% in Gates County over the period, while the state percentage increased 17%.

**Table 12. Single Parent Families (1990 and 2000)**

County	1990								2000							
	Total Family Homes		Total Homes with Single Parent		Single Male Head of Household		Single Female Head of Household		Total Family Homes		Total Homes with Single Parent		Single Male Head of Household		Single Female Head of Household	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Gates	2,617		208	7.9	40	1.5	168	6.4	2,933		354	12.1	86	2.9	268	9.1
State Total	1,824,465		488,515	n/a	31,588	n/a	164,000	n/a	2,158,869		697,521	n/a	60,791	n/a	227,351	n/a
NC County Avg.	18,245		4,885	26.8	316	1.7	1,640	9.0	21,589		6,975	32.3	608	2.8	2,274	10.5

Source: Log Into North Carolina (LINC) database, <http://linc.state.nc.us>

## Child Care Programs

- The number of children in regulated care in Gates County increased by 143% between 2001 and 2005 (Table 13).
- Of the children in regulated care in Gates County, 29% received a subsidy in 2005, a rate less than half that noted in 2001. The 2005 rate of child care subsidy in the county was 22% lower than the state average.
- In 2005, there were no Gates County children who had applied for and been declared eligible for subsidized care that were not receiving it.
- It is difficult to compare the number of children in foster care from year to year because different sources count within different age groups. There was one child in the age group 0-5 in foster care in Gates County in 2003. In a broader age group, 0-12, there were eight children in foster care in Gates County in 2005.

**Table 13. Subsidized Child Care (years as noted)**

County	# Children (0-12) Enrolled in Regulated Child Care (2001)	# Children (0-12) Enrolled in Regulated Child Care (2005)	% Children (0-12) in Regulated Child Care Receiving Subsidy (2001)	% Children (0-12) in Regulated Child Care Receiving Subsidy (2005)	# Children (0-12) Eligible for but Not Receiving Child Care Subsidy (2005)	# Children in Foster Care (1999)	# Children in Foster Care (2003)	# Children in Foster Care (2005)
Gates	120	292	68	29	0	1	0	8
State Total	211,553	260,252	43	37	37,063	3,648	3,049	9,820
NC County Avg.	2,116	2,603	n/a	n/a	3,706	36	30	98
Source	a	a	a	a	a	b	b	a

a - NC Child Advocacy Institute, Data and Statistics, 2005 Children's Index County Profiles, <http://www.aecf.org/cgi-bin/cliiks.cgi>  
 b - Frank Porter Graham Early Childhood Development Institute. Early Childhood Needs and Resources Report 2003 [http://www.fpg.unc.edu/~NCNR\\_Assessment/pdfs](http://www.fpg.unc.edu/~NCNR_Assessment/pdfs). REFERS TO CHILDREN AGED 0-5.

According to the NC Division of Child Development Child Care Facility Search Site (20), as of September 1, 2010, there are 18 child care facilities in Gates County that are licensed to operate in North Carolina in the following categories:

- Five Star Center License – 3 facilities
- Five Star Family Child Care Home License – 1 facility
- Four Star Center License – 1 facility
- Four Star Family Child Care Home License – 1 facility
- Three Star Center License – 1 facility
- Three Star Family Child Care Home License – 1 facility
- Two Star Center License – 1 facility
- Two Star Family Child Care Home License – 2 facilities
- One Star Family Child Car Home License – 7 facilities

## **Transportation**

### **Gates County Inter-Regional Transportation System**

Gates County Inter-Regional Transportation System, GITS, is the coordinated public transportation program for the county of Gates. GITS will provide transportation for any county resident to various appointments. GITS will utilize deviated fixed routes, subscription, and demand response trips to service clients.

- The primary areas requested are Ahoskie (Hertford County), Elizabeth City (Pasquotank County), Edenton (Chowan County), Suffolk, Smithfield, and Norfolk, Virginia.
- The hours of operation are 5:00 a.m. to 7:00 p.m. on Monday through Friday and some Saturdays are available by request.
- The routes were originally developed by medical facilities based on the agency referrals on behalf of the clients. After the initial start up, the routes have expanded to allow for employment transportation as well.
- 2009 data reported 38,156 transported trips made for Gates County residents which utilizes a total of 344,960 miles.

## **Education**

### **Educational Attainment and Investment**

- As of the 2000 Census, Gates County had 9% fewer high school graduates and 53% fewer college graduates than the NC county average. More than 28% of the county's population had not finished high school.
- According to 2008 End of Grade (EOG) Test results, both third and eighth graders in the Gates County school system performed at lower rates of proficiency in math and reading than students statewide.
- The 2005 average SAT scores for students in the Gates County school system (956) was 54 points below the NC average (1010).
- In 2006-2007, the rate of acts of school violence in Gates County schools (6.4) was 18% lower than the NC system-wide average (7.8).
- The 2007-2008 total-per-pupil expenditure (i.e., per-pupil expenditure from state, federal, and local sources) in the Gates County school system (\$7,548) ranked 10<sup>th</sup> among school systems in the state.

### **High School Drop-Out Rate**

- High school drop-out rates have fluctuated in the Gates County school system since the 2002-03 school years with an overall increase of 37% between 2002 and 2008. The high school drop-out rate in NC decreased 28% during the same period.
- The high school drop-out rate in Gates County Schools has generally been higher than the average NC county rate in all school years since 2003-04 except 2005-06.
- According to the latest figures in 2008, the high school drop-out rate in Gates County (5.9) is higher than the NC County Average rate (5.0).

- Table 14 shows Gates County’s drop-out rate for high school students in 2007 compared to its peer counties.

**Table 14. % High School Dropout Information Grades 9-12**

<b>RESIDENCE</b>		<b>2007</b>
North Carolina		5.3
<i>Gates</i>		6.6
<b>PEERS</b>	Caswell	7.9
	Chowan	4.6
	Jones	5.6
	Swain	8.2

## Schools and School Enrollment

- As of September 1, 2010, there are five public schools in Gates County: three elementary schools, one middle school, and one high school (21). There are no charters (22) or private schools (23) in the county.
- During the 2007-2008 school years, 2,083 students were enrolled in the public school system in Gates County. The enrollment in Gates County public schools has increased very slightly since 2003, while public schools in the average NC County have experienced a more significant increase in enrollment.

## Higher Education

- The College of the Albemarle (COA), a regional community college, serves Gates County residents as well as others in the Albemarle region with locations in Edenton (Chowan County), Elizabeth City (Pasquotank County), and Manteo (Dare County). COA was the first comprehensive community college in the state of North Carolina (24).
- Chowan University is a small (<1,000 students) four-year liberal arts university located in Murfreesboro (Hertford County). Chowan University is affiliated with the Southern Baptist Association (25).
- Mid-Atlantic Christian University (MACU), formerly Roanoke Bible College, is a small (<200 students) private, co-educational four-year college located in Elizabeth City offering associate and baccalaureate degrees. MACU is supported by the Fellowship of Churches of Christ and Christian Churches (26).

- Elizabeth City State University (ECSU) is a four-year state university located in Elizabeth City. A constituent institution of The University of North Carolina, ECSU offers baccalaureate programs in the arts and sciences and professional and pre-professional areas, as well as master's degrees in selected disciplines. Originally an institution for African-American students, the university's rich heritage provides a strong background for its increasingly multicultural student body (27).
- East Carolina University (ECU) is a large, four-year state university that is also a constituent member of the UNC System. ECU was founded in 1907 to alleviate the desperate shortage of teachers in the eastern part of the state. The College of Education has been joined by programs of high distinction in health care and the fine and performing arts. Today the university offers 106 bachelor's degree programs, 71 master's degree programs, 4 specialist degree programs, 1 first-professional MD program, and 16 doctoral programs in professional colleges and schools, the Thomas Harriot College of Arts and Sciences, and the Brody School of Medicine (28). A total of 56 Gates County residents enrolled in ECU as freshmen between 2000 and 2004; another 19 Gates County residents transferred into ECU during the same period (29).

## **Crime and Safety**

### **Crime Rates**

All crime statistics were obtained from the North Carolina State Bureau of Investigation unless otherwise noted. Table 15 shows the rates for "index crime", which consists of violent crime (murder, rape, robbery, and aggravated assault) plus property crime (burglary, larceny, arson, and motor vehicle theft), from 2003 through 2008. Table 15 shows the actual number of index crimes by type that occurred in Gates County between 1999 and 2004.

- The index crime rate in Gates County fluctuated between 2003 and 2008, but the rate in 2008 was 94% higher than in 2003. However, the 2008 index crime rate is less than half the comparable state index crime rate.
- The violent crime rate in Gates County also increased overall between 2003 and 2008. The 2008 violent rate in the county, however, remains much lower than the state violent crime rate.
- The property crime rate in the county was higher in 2008 than in the previous five years; yet in the most recent reporting period (2008) it remains lower than the rate for North Carolina as a whole.
- As detailed in Table 15, the actual number of violent crimes committed in Gates County fluctuates on a yearly basis, with the highest number having occurred in 2004-2005. Aggravated assault accounts for the majority of violent crimes in the county.
- Unlike violent crimes, the greatest number of property crimes in Gates County occurred in 2008. Larceny (the theft of property without the use of force) is the most common property crime.

**Table 15. Number of Index Crimes Reported in Gates County (1999-2008)**

Type of Crime	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Violent crime</b>	<b>16</b>	<b>17</b>	<b>12</b>	<b>9</b>	<b>4</b>	<b>18</b>	<b>18</b>	<b>5</b>	<b>10</b>	<b>9</b>
<i>Murder</i>	3	0	2	1	0	0	2	0	0	0
<i>Rape</i>	1	1	1	0	0	0	3	1	2	3
<i>Robbery</i>	0	1	0	3	1	1	6	0	2	1
<i>Aggravated assault</i>	12	15	9	5	3	17	7	4	6	5
<b>Property crime</b>	<b>183</b>	<b>127</b>	<b>141</b>	<b>122</b>	<b>108</b>	<b>152</b>	<b>131</b>	<b>34</b>	<b>143</b>	<b>227</b>
<i>Burglary</i>	72	33	44	28	30	61	53	8	47	62
<i>Larceny</i>	96	81	83	80	75	88	69	23	93	145
<i>Motor vehicle theft</i>	15	13	14	14	3	3	9	3	3	20

Source: North Carolina State Bureau of Investigation, Crime Statistics, Uniform Crime Reporting Program. Annual Summary Reports. In an individual year's report, under "Crime Trends - Offenses and Rates per 100,000", Select "County Offenses, Ten year trend". <http://sbi2.jus.state.nc.us/crp/public/Default.htm>

- According to updated information provided by the Gates County Sheriff's Office (30), 16 violent crimes were investigated in Gates County in 2005, a number slightly below the number investigated the previous year. Additionally, 89 property crimes were reported by the same source in 2005, a significantly lower figure than the previous year.
- Of the 15,636 registered sex offenders living in North Carolina in September 2010, only 16 were residing in Gates County (compared to 156 in the average county) (31). According to recent Sheriff's Office data (30) in 2005 the number had risen to 10; it increased to 16 in 2010 (31).
- Between 2001 and 2005, no clandestine drug lab busts occurred in Gates County as compared to an increasing number in the state as whole (32).
- In 2005, three gangs were active in the county (30). This number represents an increase from zero in 1999 (33).
- In 2008, 79 people in Gates County were charged with driving while intoxicated (DWI). Of those charged, 37 were convicted, for a conviction rate of 47% (which is 31% lower than the statewide conviction rate of 68%) (34).

## Juvenile Crime

- In 2004, the rate of juveniles found undisciplined (3.2) was lower than the comparable state rate of 3.8. The rate of juveniles found delinquent in the same year (30.9) was lower than the comparable state rate (35.3).
- No Gates County juveniles were sent to youth development centers or transferred to Superior Court in FY 2002-03.
- According to recent data provided by the Gates County Sheriff's Office (30) there were 102 juvenile arrests in the county in 2005.
- According to data presented in Table 16, the number and rate of children in the juvenile justice system in Gates County has fluctuated over the years but increased overall since 2000.
- When compared to the average figure for all NC counties, the *rate* at which Gates County youth are involved in the juvenile justice system has been consistently higher than the state rate.

**Table 16. Youth in Juvenile Justice System \* (2000-2003)**

County	2000		2001		2002		2003	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Gates	85	64.2	87	63.0	79	59.8	101	76.4
State Total	28,230	n/a	33,093	n/a	29,950	n/a	30,938	n/a
NC County Avg.	282	32.4	331	39.2	300	33.0	309	34.1

Source Previously but no longer available through: NC Child Advocacy Institute, County and State Data, CLIKS On-Line database, [http://www.aecf.org/cgi-bin/cliiks.cgi?action=rawdata\\_results&subset=NC](http://www.aecf.org/cgi-bin/cliiks.cgi?action=rawdata_results&subset=NC)

\* The rate of youth ages 10-17 per 1,000 in county who are in Training Schools and Detention Centers AND in programs under Juvenile Crime Prevention Councils (JCPC)

## Domestic Violence

- According to data from the NC Administrative Office of the Courts, there were 39 *ex parte* orders and 11 restraining orders related to domestic violence cases issued in Gates County in FY2005. This represented an increase from 28 *ex parte* orders and 7 restraining orders the previous fiscal year.
- No domestic violence homicides have occurred in Gates County in the years for which this data is available: 2002, 2003, 2004, and 2005 (35).
- The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. The system documents physical abuse before, during and after pregnancy among women who are surveyed by phone shortly after giving birth. Although these data are available only on a regional basis, they may be useful in understanding the domestic violence issues in any county within the region. Gates County is part of the large Region IV (Eastern region) of the PRAMS network.

**Table 17. Physical Abuse Before, During, and After Pregnancy in Region VI - Eastern Region \* (2001-2003)**

Question	Eastern Region			North Carolina		
	# Respondents	% Responses		# Respondents	% Responses	
		Yes	No		Yes	No
Physical Abuse during 12 mos. before pregnancy	710	6.2	93.8	4,666	5.3	94.7
Physical abuse by husband/partner before pregnancy	710	4.9	95.1	4,668	4.1	95.9
Physical abuse by non-family/friend before pregnancy	712	1.9	98.1	4,670	1.6	98.4
Physical abuse during pregnancy	711	5.2	94.8	4,660	4.9	95.1
Physical abuse by husband/partner during pregnancy	711	3.8	96.2	4,665	3.6	96.4
Physical abuse by non-family/friend during pregnancy	712	2.1	97.9	4,664	1.5	98.5
Physical abuse by partner after pregnancy	710	3.9	96.1	4,665	3.1	96.9
Physical abuse by other person after pregnancy	709	4.6	95.4	4,669	1.2	98.8
Partner threatened to hit or throw something in past year	697	7.5	92.5	4,599	6.3	93.7
Partner destroyed personal belonging in past year	698	8.8	91.2	4,597	6.9	93.1

Source Pregnancy Risk Assessment Monitoring System for North Carolina, <http://www.schs.sate.nc.us/SCHS/prams/indexhtml>

\* Eastern Region VI includes Bertie County as well as: Northampton, Halifax, Nash, Wilson, Edgecombe, Wayne, Greene, Lenoir, Pitt, Duplin, Onslow, Jones, Craven, Carteret, Pamlico, Beaufort, Martin, Hertford, Gates, Currituck, Camden, Pasquotank, Perquimans, Chowan, Washington, Tyrell, Dare and Hyde Counties.

## Elder Maltreatment

The Gates County Department of Social Services provided recent data indicating that it received 17 referrals for elder abuse in FY 2005-2006, one of which was confirmed; none were substantiated. In the previous fiscal year there had been 25 referrals, two confirmations and four substantiations (36).

## Child Maltreatment

- As demonstrated in Table 18, the number of reports of child abuse made in Gates County increased overall between 2001 and 2006.

**Table 18. Child Abuse Investigations and Substantiations (2001-2006)**

County	2001-02		2002-03		2003-04		2004-05		2005-06	
	Reports Made	Substantiated	Made	Substantiated	Made	Substantiated	Reports Made	Number Substantiated	Reports Made	Number Substantiated
Gates	87	12	116	25	138	48	115	41	135	31
State Total	107,218	32,883	107,157	30,016	113,557	27,310	111,581	19,908	111,150	24,597
NC County Avg.	1,072	329	1,072	300	1,136	273	1,116	199	1,112	246

Source: NC Department of Health and Human Services, Division of Social Services, Statistics and Reviews, Child Welfare, Central Registry Statistics  
<http://www.dhhs.state.nc.us/dss/stats/cr.htm>  
 The most commonly types of maltreatment in the Region are: injurious environment, improper supervision and improper care/lack of discipline  
 Children who are only subject to family assessments are not included in the number of children who are substantiated.

- The rate of reports of child abuse or neglect investigated in Gates County increased overall between 2000 and 2005 (Table 19).
- A case of child abuse is substantiated if the investigation finds proof that abuse did in fact occur. The Gates County child abuse substantiated rate has fluctuated since 2000 with the highest rate (16.0) occurring during the most recent reporting period (2005). The state rate has declined steadily over the period cited.
- The rate of reports investigated as well as the rate of substantiated cases in Gates County has been lower than the comparable state rate in each of the years noted except 2005, where the county's substantiated rate exceeded the comparable state rate by 60%.
- According to recent information provided by the Gates County Department of Social Services (13), the department investigated 73 child abuse reports in FY 2005-06. Of these reports, 39% were substantiated.

**Table 19. Child Abuse/Neglect Substantiated Rate, per 1,000 Children Aged 0-17 (1997-2003; 2005)**

County	2000		2001		2002		2003		2005	
	Rate of Investigation	Rate Substantiated								
Gates	21.1	3.9	18.3	2.6	32.5	4.5	43.9	9.5	49.0	16.0
NC County Avg.	51.3	16.2	n/a	n/a	52.7	16.2	51.9	14.5	54.0	10.0
	a	a	b	b	a	a	a	a	b	b

Source: a - NC Department of Health and Human Services, Division of Social Services, Statistics and Reviews, Child Welfare, Central Registry Statistics.  
<http://www.dhhs.state.nc.us/dss/stats/cr.htm>  
 b - NC Child Advocacy Institute, County and Local Level Data, CLIKS System, <http://www.aecf.org/cgi-bin/cliiks.cgi>

- The number of children in Department of Social Services (DSS) custody in Gates County is small, and has decreased overall since 2005.
- There were no child abuse-related homicides reported in Gates County in either 2001 or 2005 (37).

## **Environmental Health**

Albemarle Environmental Management Systems affords the community services to ensure health and safety while reducing the spread of communicable diseases.

- Sewage Inspection
- Swimming Pool Inspection
- Lead Investigation
- Food & Lodging Inspection
- Management Entity
- Communicable Disease Investigation

### **Perquimans, Chowan, Gates Landfill**

Perquimans, Chowan and Gates counties formed a partnership in 1989 that operates as a division of the local health department (now ARHS) as the Perquimans Chowan Gates (PCG) Landfill Commission. These counties operate a jointly-owned transfer station in Belvidere plus thirteen convenience sites for collecting solid waste, recyclables, and special wastes. The transfer station serves the residential, commercial and industrial sectors of the community. These facilities safely expedite the removal of solid wastes from the area to the privately owned East Carolina Environmental Landfill in Bertie County. PCG also provides yard waste chipping and an inert debris landfill at its facility. This partnership strives to provide environmentally preferable handling of special wastes such as pesticide containers, waste motor oil, paints, gasoline, used appliances, scrap tires, electronic wastes, antifreeze, and other materials. PCG has operated junk car and abandoned mobile home removal programs with the assistance of state grants.

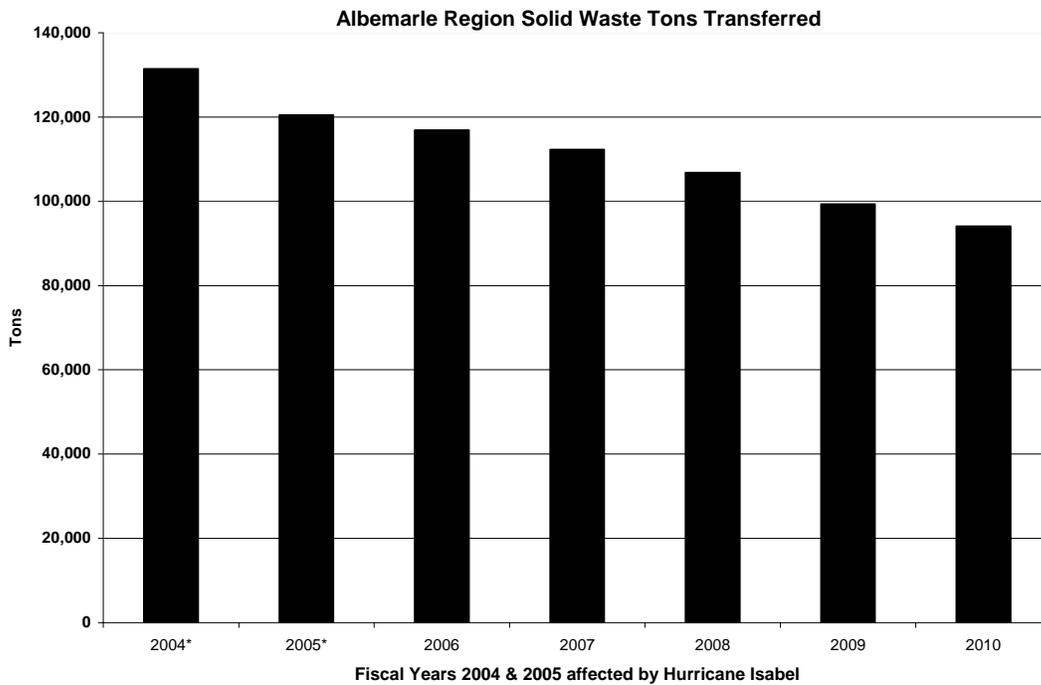
**Figure 5. Perquimans Chowan Gates Convenience Centers Map**



### Albemarle Regional Solid Waste Management Authority

Albemarle Regional Solid Waste Management Authority is a county-level legal entity serving the counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, and Tyrrell. This area has approximately 107,000 permanent residents and several hundred thousand visitors each year. Through a 26-year contract signed in 2009 with Republic Services of NC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region. All municipal wastes and most construction and demolition debris in the region are landfilled in the East Carolina Environmental Landfill in Bertie County. The waste is primarily sent there through the three transfer stations located in Dare, Currituck, and Perquimans counties. The towns and counties operate their own solid waste collection programs. The Authority conducts centralized solid waste billing, data collection and reporting, educational services, and technical assistance for local programs.

**Figure 6**



The use of onsite wastewater systems, also known as septic systems, is the most common method of wastewater collection and treatment in the county. ARHS regulates the design, installation, and maintenance of these systems in accordance with The Laws and Rules for Sewage Treatment and Disposal Systems of the North Carolina Department of Environment and Natural Resources, Division of Environmental Health.

# **Chapter Two**

## **Access to Care**

# Chapter Two

## Access to Care

### Health Care Professionals

Access and utilization of healthcare are affected by a range of variables including the availability of medical professionals in a region, insurance coverage, transportation, cultural expectations and other factors. Compilation of comprehensive health resources data was beyond the scope of this project; nevertheless, some overview-type data were collected and are presented here:

- The number of health care professionals in Gates County has remained low throughout the past decade with very few of the most essential health care professionals; physicians, registered nurses and dentists.
- In 2008, there was less than 1 physician per 10,000 people, extremely low when compared to the state's average of 21.2 per 10,000 people. The ratio of registered nurses to people is also low when compared to the total ratio of the state.
- In Gates County, in 2008, there were 21.6 registered nurses per 10,000 people and a state average of 95.1 registered nurses per 10,000 people.
- Gates County currently has no dentists.
- The county's lack of health care professionals is most likely due to the rural atmosphere of the area and low socioeconomic status of its citizens. Lower incomes lead to higher numbers of uninsured individuals who cannot afford to visit a doctor or dentist.
- Without being able to receive fair compensation for their services, health care professionals have no incentive to start practicing in the area. Citizens who need care that is not available in Gates County usually travel to neighboring counties or very often cross the state line into Virginia.

Table 20.

<b>Physicians</b>	<b>2000</b>	<b>2004</b>	<b>2008</b>	<b>NC 2008</b>
Total Physicians	3	3	1	19,542
Primary Care Physicians	2	3	1	8,347
<i>Family Practice</i>	1	1	0	2,684
<i>General Practice</i>	0	0	0	122
<i>Internal Medicine</i>	1	2	1	2,922
<i>Obstetrics/Gynecology</i>	0	0	0	1,026
<i>Pediatrics</i>	0	0	0	1,593
Other Specialty	1	0	0	11,149
Physicians per 10,000 Population	2.9	2.8	0.9	21.2
Primary Care Physicians per 10,000 Population	1.9	2.8	0.9	9.0
<b>Dentists and Dental Hygienists</b>	<b>2000</b>	<b>2004</b>	<b>2008</b>	<b>NC 2008</b>
Dentists	1	1	0	3,987
Dental Hygienists	0	0	0	4,963
Dentists per 10,000 Population	1	0.9	0.0	4.3
<b>Nurses</b>	<b>2000</b>	<b>2004</b>	<b>2008</b>	<b>NC 2008</b>
Registered Nurses	23	24	25	87,743
Nurse Practitioners	0	1	0	3,150
Certified Nurse Midwives	0	0	0	225
Licensed Practical Nurses	24	21	24	17,888
Registered Nurses per 10,000 Population	21.9	22.1	21.6	95.1
<b>Other Health Professionals</b>	<b>2000</b>	<b>2004</b>	<b>2008</b>	<b>NC 2008</b>
Chiropractors	0	0	0	1,317
Optometrists	0	0	0	983
Pharmacists	3	3	3	8,578
Physical Therapists	1	0	1	4,643
Physical Therapy Assistants	0	2	1	2,182
Podiatrists	0	0	0	278
Psychologists	0	0	0	1,844
Psychological Associates	0	1	2	896
Physician Assistants	1	2	1	3,228
Source: 2008 UNC Sheps Center for Health Services Research <a href="http://www.shepscenter.unc.edu/hp/profiles.htm">http://www.shepscenter.unc.edu/hp/profiles.htm</a>				

## **Health Resource Inventory – See Appendix A**

### **Hospitals and Health Centers**

Because there are no hospitals in Gates County, residents must utilize services provided by hospitals in neighboring counties such as those listed below.

#### **Albemarle Hospital**

Albemarle Hospital, located in Elizabeth City (Pasquotank County), NC, is a regional, not-for-profit, 182-bed community hospital serving not only Pasquotank County, but also six other counties and a total of more than 130,000 people. With a medical staff of more than 100 physicians representing 30 medical specialties, the hospital provides a complete range of care, including inpatient hospitalization, advanced surgery, a rehabilitation program, a diagnostic center, same-day ambulatory surgery, urgent and emergency care, and a regional oncology center, as well as a wide array of community education and support groups.

The Albemarle Hospital Foundation is supported by hospital employees, physicians, and volunteers in efforts to develop and fund community outreach programs such as the Community Care Clinics, which serve the region's indigent, underinsured, and uninsured residents (38).

#### **Bertie Memorial Hospital**

Bertie Memorial Hospital is a non-profit, six-bed facility, located in Windsor (Bertie County), NC, and is part of University Health Systems of Eastern North Carolina. The hospital provides surgical, 24-hour emergency and diagnostic services, specialty clinics and primary care clinics (family medicine and internal medicine). Through its outpatient therapy services unit, the hospital provides physical, speech and occupational therapy. The hospital also includes a home healthcare agency (University Home Care of Cashie), and has a telemedicine link with the Brody School of Medicine at East Carolina University in Greenville, NC. The hospital's primary care physician practice operates the Cashie Medical Center, which provides medical care for children and adults (39).

#### **Chesapeake General Hospital**

Chesapeake General Hospital, located in Chesapeake, VA, is a major health resource for southeastern Virginia and northeastern North Carolina residents. It has a medical staff of 440 members from nearly every major specialty and 310 all-private beds. Services include; cancer services, cardiac care, home health, hospice, community outreach, diabetes services, nutrition counseling, obstetrical services, orthopedic services, outpatient testing, and women's health services (40).

## **Chowan Hospital**

Chowan Hospital, a facility located in Edenton (Chowan County), NC, is part of the University Health Systems of Eastern North Carolina. The hospital provides services and programs to 110,000 people in seven counties, including Gates. The hospital offers a wide range of services and healthcare specialties provided by a medical staff that includes; practitioners in primary care, pediatrics, internal medicine and surgery. Special medical and surgical services at Chowan Hospital include; intensive care, a surgical center, an emergency department, a labor and delivery suite and bone density screening. The hospital offers outpatient clinics in cardiology, gastroenterology, oncology, and other medical specialties. It also provides physical, speech, and occupational therapy in hospital, outpatient and home settings. The hospital also has a telemedicine link with the Brody School of Medicine at East Carolina University (41).

## **Sentara Obici Hospital**

Sentara Obici Hospital, a 168-bed acute care, full-service hospital, is located on Godwin Boulevard in Suffolk, VA. Obici's services include; a 24-hour emergency department, advanced imaging, cardiac care, comprehensive cancer care, neurology and sleep services, inpatient and outpatient surgery, rehabilitation services, women's health services, and Sentara Obici Breast Health Center. Obici is often utilized by Gates County residents, and offers an environment designed to foster compassion, education and healing in a patient-centered and holistic environment (42).

## **Outer Banks Hospital**

The Outer Banks Hospital, located in Nag's Head (Dare County), NC, is a private not-for-profit acute care 19-bed hospital with services that include emergency services, inpatient and outpatient surgery, labor and delivery, physical therapy, respiratory therapy, speech therapy, laboratory, blood bank, and radiology. The hospital offers consultations with medical experts in other locations via interactive television provided in conjunction with the East Carolina University School of Medicine (43).

## **Roanoke-Chowan Hospital**

Roanoke-Chowan Hospital is a 114-bed, not-for-profit hospital located in Ahoskie (Hertford County), NC. The hospital serves approximately 39,000 residents in Hertford County and three neighboring counties, including Gates. The Roanoke-Chowan Hospital's medical staff includes primary care, pediatric and internal medicine physicians, as well as specialists in orthopedics, general surgery, urology, cardiology and obstetrics and gynecology. It also engages consulting physicians and specialists from Pitt County Memorial Hospital (in Greenville), the Brody School of Medicine, and the surrounding region. The hospital's emergency department provides emergency care 24-hours a day, and operates a non-emergency medical service open from 5:00 pm until midnight. As part of University Health Systems of Eastern North Carolina, the hospital's patients have access to treatment at facilities and clinics in other locations (44).

In addition, there are five other hospitals in the southern tier of Virginia patronized by Gates County residents:

- Norfolk Sentara Hospital (Norfolk)
- Children's Hospital of the King's Daughters (Norfolk)
- Southampton Memorial Hospital (Franklin)
- Portsmouth Naval Hospital (Portsmouth)
- Maryview Hospital (Portsmouth)

## **Tertiary and Critical Care Facilities**

Tertiary care is specialized consultative care, usually provided on referral from primary or secondary medical care personnel. It is offered by specialists working in centers that have the staff, equipment and other facilities for special investigation and treatment. The nearest tertiary care facility in NC accessible to Gates County residents is Pitt County Memorial Hospital, a 745-bed hospital and academic medical center located in Greenville, NC (45).

Pitt County Memorial Hospital is also designated as a Level I Trauma facility, meaning it conforms to the highest national and state standards for trauma care. (Trauma is a sudden, serious and sometimes life-threatening injury that requires immediate and highly skilled medical attention). The hospital's Trauma Center is responsible for the development and maintenance of a coordinated trauma system in eastern NC and is the site of the Eastern Regional Advisory Committee (ERAC). The hospitals affiliated with ERAC work with Pitt County Memorial Hospital to plan, implement and evaluate the care of injured patients throughout eastern NC.

Norfolk Sentara Hospital, located in Norfolk VA, also is a Level 1 Trauma facility.

## **Community Care Clinic**

The Albemarle Hospital Foundation runs Community Care Clinics in Camden, Chowan, Currituck, Gates, Pasquotank, and Perquimans counties. The Foundation, established in 2003, allows each clinic site to offer prescriptions, financial assistance for prescriptions, and free primary care to the medically indigent, uninsured, and underinsured in the Albemarle region. The Albemarle Hospital Foundation targets minorities and the growing Hispanic population, as well as those populations' increasing health care needs in the area of chronic disease (especially high cholesterol, high blood pressure, obesity, and diabetes). Community Care Clinics also operate specialized preventive care outreach programs, targeting the Hispanic and African American populations (46).

## **Local Health Department**

The Gates County Health Department is part of Albemarle Regional Health Services (ARHS), a seven-county regional, accredited Public Health agency headquartered in Elizabeth City, NC. Gates County joined ARHS in 2004. The local health department is located in Gates County at 29 Medical Center Road. Comprehensive clinical services include Women's Preventive Health, Adult Health, Communicable Diseases programming, Immunizations, School and Community Health Education, Breast and Cervical Cancer Control Program, Diabetes Management, Child Health, WIC, Albemarle

Hospice, Albemarle Home Care, Albemarle Life Quest/Health Promotion, Environmental Health, Solid Waste Management Authority, and the Regional Landfill services (47).

### **Long-Term Care Facilities**

- According to the Medicare Nursing Home Compare System (48) and the NC Division of Aging and Adult Services website (49), in 2010, there is one nursing home in Gates County: the Down East Health and Rehabilitation Center in Gatesville. This nursing home provides 70 beds to Gates County residents (48). As such, Gates County has fewer nursing home beds when compared to the average NC County (442), and has not changed since 2005. The number of beds in the state has increased only slightly over the same period.
- As of 2004, there were no family care homes, adult care homes or adult day health or day care centers in Gates County.

### **Mental Health Services and Facilities**

East Carolina Behavioral Health is the local management entity (LME) for mental health services in Gates County. It coordinates mental health, developmental disability and substance abuse services for children and adults of nineteen counties in the eastern North Carolina region (Information from: East Carolina Behavioral Health. Accessible at: <http://www.dhhs.state.nc.us/mhddsas/lmedirectory.htm> and accessed September 2010).

### **Medical Insurance**

#### **Medically Indigent Population**

In most communities, citizens' access to and utilization of health care services is related to the ability to pay for those services, either directly or through private or government health insurances plans/programs.

- In Gates County, the percentage of the total population that is uninsured has been consistently higher than the state for the majority of the reporting period and the gap is growing larger (Table 21).
- The percent of the population without health insurance was highest in 2004 in Gates County and highest in 2003 in NC.

**Table 21. Percent of Population without Health Insurance (1997-2004)**

County	1997	1998	1999	2000	2001	2002	2003	2004	State Rank 2003	State Rank 2004
Gates	18.4	17.2	20.0	16.3	18.5	19.2	19.4	21.1	33.0	73.0
NC County Avg.	16.9	15.8	16.3	15.6	17.7	19.0	19.4	17.5	n/a	n/a
Source	a	a	a	a	b	b	b	b	b	b

a - NC State Center for Health Statistics. County Health Databooks. <http://www.schs.state.nc.us/SCHS/data/databook/>  
 b - Sheps Center for Health Services Research, Publications. County Level Estimates of the Uninsured:1999-2000, 2002 and 2003 Updates. <http://www.shepscenter.unc.edu/>

- The proportion of uninsured children under the age of 18 in Gates County has decreased overall since 2002 (Table 22).
- In Gates County, adults aged 18-64, make up an increasing percentage of those without health insurance.

**Table 22. Percent of Population without Health Insurance, by Age (2002-2004)**

County	2002			2003			2004		
	Total	Under 18	18-64	Total	Under 18	18-64	Total	Under 18	18-64
Gates	19.2	13.3	21.9	19.4	11.1	22.8	21.1	12.1	24.7
NC County Avg.	19.0	12.3	21.8	19.4	n/a	n/a	17.5	n/a	n/a

b - Sheps Center for Health Services Research, Publications. County Level Estimates of the Uninsured:1999-2000, 2002, 2003, and 2004 Updates. <http://www.shepscenter.unc.edu/>

## Medicaid

- The number and percent of Gates County residents eligible for Medicaid have remained relatively stable from 2001 to 2004.
- The *percent* of Gates County Medicaid-eligible residents is greater than the comparable NC county average.
- Gates County spends more per capita on Medicaid than the average NC county, although the difference is narrowing.

## North Carolina Health Choice

As has been established with previously cited data, children in Gates County are disproportionately burdened by poverty and its consequences. One of these consequences is limited access to health care due to inability to pay. Enrollment in Medicaid or NC Health Choice for Children can help them access needed services. Families not eligible for Medicaid but whose income is not sufficient to afford rising health insurance premiums may be able to receive free or reduced-price comprehensive health care for their children through the North Carolina Health Choice for Children (NCHC) program. This plan, which took effect in October 1998, includes the same benefits as the State Health Plan, plus vision, hearing and dental benefits (following the

same guidelines as Medicaid). Children enrolled in NCHC are eligible for benefits including sick visits, check-ups, hospital care, counseling, prescriptions, dental care, eye exams and glasses, hearing exams and hearing aids and more.

- Both the number and percent of Gates County children enrolled in Medicaid grew between 2000 and 2004, as did the number and percent of county children enrolled in NC Health Choice.
- The percent of Gates County children enrolled in Medicaid increased 22% between 2000 and 2004; at the state level the rate of increase was 18%.
- The percent of Gates County children enrolled in NC Health Choice increased by 20% over the period cited, while at the state level the increase was 50%.

## **Community Care of North Carolina: ACCESS, ACCESS II and ACCESS III**

### **Carolina ACCESS**

Carolina ACCESS, implemented in 1991, is North Carolina's Primary Care Case Management (PCCM) Program for Medicaid recipients. It serves as the foundation managed care program for Medicaid recipients and brings a system of coordinated care to the Medicaid program by linking each eligible recipient with a primary care provider (PCP) who has agreed to provide or arrange for healthcare services for each enrollee. Primary care providers bill fee-for-service and are reimbursed based on the Medicaid fee schedule; they also receive a small monetary incentive per member per month for coordinating the care of program participants enrolled with their practice. By improving access to primary care and encouraging a stable doctor-patient relationship, the program helps to promote continuity of care, while reducing inappropriate health service utilization and controlling costs.

- As of June 2009, there were 998,484 Medicaid recipients enrolled in Carolina ACCESS or ACCESS II statewide, which represents 67% of all Medicaid recipients eligible to participate (49).
- As of June 2009, there were 1,788 Medicaid recipients in Gates County enrolled in Carolina ACCESS or ACCESS II (49).
- According to data provided by the state (50), there was (as of August, 2006) one medical provider in Gates County participating in Carolina ACCESS II; no others were listed.

### **Carolina ACCESS II and ACCESS III**

ACCESS II and III are enhanced primary care programs initiated in 1998 to work with local providers and networks to manage the Medicaid population with processes that impact both the quality and cost of healthcare. ACCESS II includes local networks comprised of Medicaid providers such as primary care providers, hospitals, health departments, departments of social services, and other community providers who have agreed to work together to develop the care management systems and support that are needed to manage enrollee care. In addition to a primary care provider, ACCESS II and III enrollees have care managers who assist in developing, implementing, and evaluating enhanced managed care strategies at each demonstration site. Providers in ACCESS II

and III receive a small monetary incentive per member per month; the demonstration sites are paid a similar small per member per month care management fee. ACCESS II includes 10 integrated networks; ACCESS III includes countywide partnerships in three counties.

- Gates County Medicaid clients participate in ACCESS I and ACCESS II.

### Medicare/Medicaid Dual Eligibility

- The number of dually eligible Medicare/Medicaid beneficiaries in Gates County remained relatively stable between 1999 and 2001, with slight decreases in the 65-74 and 85+ age groups and slight increases in the <65 and 75-84 age groups (Table 23).
- The proportion of eligibles in the county has been above the comparable state proportion for some age groups in some years and below in others (51).

**Table 23. Dually Eligible Medicare Beneficiaries (Eligible for both Medicare and Medicaid) (1999-2001)**

County	1999								2000								2001							
	<65		65-74		75-84		85+		<65		65-74		75-84		85+		<65		65-74		75-84		85+	
	No.	%																						
Gates	114	31.2	124	16.5	111	22.5	64	44.1	113	31.7	123	16.2	116	25.4	56	37.8	122	32.7	118	15.8	116	25.8	52	34.9
State Total	87,716	n/a	61,667	n/a	53,564	n/a	25,539	n/a	83,428	n/a	61,588	n/a	52,715	n/a	25,377	n/a	92,941	n/a	62,197	n/a	53,919	n/a	24,419	n/a
NC County Avg.	877	36.3	617	15.3	536	22.8	255	36.4	834	35.8	616	15.4	527	22.9	254	37.3	929	37.0	622	24.2	539	22.6	244	35.6

Source: Carolina Medicare Epidemiologic Data, Medicare Population Data, <http://www.mmc.org/NCMED/beneficiary.asp>

# **Chapter Three**

## **Health Statistics**

# Chapter Three

## Health Statistics

### Understanding Health Statistics

#### **Age-adjustment**

Mortality rates or death rates are often used as measures of the health status of a community. Many factors can affect the risk of death, including race, gender, occupation, education, and income. The most significant factor is age, because the risk of death inevitably increases with age. As a population ages, its collective risk of death increases. Therefore, an older population will automatically have a higher overall death rate just because of its age distribution. At any one time, some communities have higher proportions of “young” people, and other populations have a higher proportion of “old” people. In order to compare mortality data from one community with the same kind of data from another, it is necessary first to control for differences in the age composition of the communities being compared. This is accomplished by “age-adjusting” the data. Age-adjustment is a complicated statistical manipulation usually performed by the professionals responsible for collecting and cataloging health data, such as the staff of the NC State Center for Health Statistics (NC-SCHS). It is not necessary to understand the nuances of age-adjustment to use this report. It is important to understand that age-adjusted data are preferred for comparing health data from one population to another and have been used in this report whenever available.

#### **Aggregate Data**

Another convention typically used in the presentation of health statistics is aggregate data combining data gathered over a five-year period. The practice of presenting data that are aggregated over a five-year period avoids the instability typically associated with using highly variable year-by-year data consisting of relatively few cases or deaths. It is particularly important to aggregate data for smaller counties like Gates County. The calculation is performed by dividing the number of cases or deaths due to a particular disease over five years by the sum of the population size for each of the five years.

#### **Incidence**

Incidence is the population-based *rate* at which new cases of a disease occur and are diagnosed. It is calculated by dividing the number of newly diagnosed cases of a disease or condition during a given time period by the population size during that time period. Typically, the resultant value is multiplied by 100,000 and is expressed as cases per 100,000.

### **Incidence**

Incidence is calculated according to the following formula:

$$\text{Incidence} = \frac{\text{number of new cases of disease}}{\text{population size}} \times 100,000 = \text{cases per 100,000 people}$$

The incidence rates for certain diseases, such as cancer, are simple to obtain, since data are routinely collected by the North Carolina Central Cancer Registry. However, other conditions, such as diabetes or heart disease, are not normally reported to central data-collecting agencies. It is therefore difficult to measure burden of disease within a community, and incidence is often estimated by consulting hospital records. Utilization records show the number of residents within a county who use hospital, in-patient services for given diseases during a specific time period. Typically, these data underestimate the true incidence of the given disease in the population, since individuals who are diagnosed outside of the hospital, at an in-patient setting are not captured by the measure.

### **Mortality**

Mortality is calculated by dividing the number of deaths due to a specific disease in a given time period by the population size in the same time period. Like incidence, mortality is a *rate*, usually presented as number of deaths per 100,000 residents. Mortality rates are easier to obtain than incidence rates since the underlying (or primary) causes of death are routinely reported on death certificates. However, some error can be associated with cause-of-death classification, since it is sometimes difficult to choose an underlying cause of death from potentially many, co-occurring conditions.

### **Mortality**

Mortality is calculated according to the following formula:

$$\text{Mortality Rate} = \frac{\text{number of deaths from disease}}{\text{population size}} \times 100,000 = \text{deaths per 100,000 people}$$

### **Prevalence**

Prevalence, which describes the extent of a problem, refers to the number of existing cases of a disease or health condition in a population at a defined point in time or during a time period. Prevalence expresses a *proportion*, not a rate. It is not used extensively in this report.

### **Trends**

Data for multiple years is included in this report wherever possible. Since comparing data on a year-by-year basis can yield very unstable trends due to the often small number of cases and deaths per year in Gates County, the preferred method for

reporting incidence and mortality trend data is long-term trends using the age-adjusted aggregated format. Most data points used in the report are standardized to the 2000 US population.

## ICD Coding Changes

Beginning in 1999, all causes of death were coded using the 10<sup>th</sup> Revision of the International Classification of Diseases (ICD-10). For the years 1979-1998, the ninth (ICD-9) revision was used. With three years of data now available using ICD-10 coding, multiyear age-adjusted data has been published. Previous data points were published over five-year periods, and as data becomes available using ICD-10 coding, the NC-SCHS will again build up to five-year rates. Community health planning groups should incorporate these five-year rates into the trends when they become available to maintain continuity, but it should be noted that in this report the final data point in many trend lines is a three-year rather than a five-year aggregate.

The most important consequence of the change in coding is that differences between ICD-9 and ICD-10 disease definitions could cause comparability problems across the two revisions. To help users cope with potential problems, the NC-SCHS has presented comparability ratios for leading causes of death (Table 24).

The comparability ratio is a measure of expected changes due only to the changes in disease definitions. The ratio is calculated by dividing the number of deaths coded using ICD-10 in a standard population by the number of deaths coded using ICD-9 in the same population. The ratio can be used to determine whether an apparent change in mortality is due to factors other than a change in coding. For example, after 1998 there will be a 6% rise in mortality due to cerebrovascular disease, due only to the changes in disease definition. Any other visible change should be due to factors other than coding.

**Table 24. Leading Causes of Death and ICD-9 to ICD-10 Comparability Ratios**

<b>Cause of Death</b>	<b>Comparability Ratio</b>
<b>Heart Disease</b>	0.99
<b>Cerebrovascular Disease</b>	1.06
<b>Cancer – All Types</b>	1.01
<b>HIV Disease</b>	1.14
<b>Septicemia</b>	1.19
<b>Diabetes</b>	1.01
<b>Chronic Lower Respiratory Disease</b>	1.05
<b>Chronic Liver Disease and Cirrhosis</b>	1.04
<b>Nephritis, Nephrosis, and Nephrotic Syndrome</b>	1.23
<b>Motor Vehicle Injuries</b>	0.85
<b>All Other Unintentional Injuries</b>	1.08
<b>Suicide</b>	1.00
<b>Homicide</b>	1.00
<b>Alzheimer’s Disease</b>	1.55
<b>Deaths From All Causes</b>	1.00

## Behavioral Risk Factor Surveillance System

Gates County residents participate regularly in the state’s annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of the six-county North East Region I sample. However, the typically small number of participants (n=399 in 2004 and 516 in 2005) across the sample of which the county is a part yields data too limited to interpolate reliably to a single county, so it is seldom used in this document (52).

## Leading Causes of Death

Within each sponsored health fair, including the annual Family Fun & Fitness Day, sessions are provided to inform Gates County residents related to Chronic Disease, Obesity, Access to Health Care, and Injury Prevention.

Table 25 shows the leading causes of death in Gates County, listed in descending order based on combined mortality data for the years 2004 through 2008. Figures in **boldface** type indicate causes of death for which the Gates County rate exceeds the comparable rate for the state as a whole.

**Table 25. Age-Adjusted Mortality Rates for the Leading Causes of Death in Gates County, North Carolina and the United States (2004-2008)**

Cause of Death	Gates County		North Carolina	United States
	Number	Rate	Rate	Rate
1. Total Cancer	135	205.9	192.5	180.7
2. Heart Disease	131	195.8	202.2	200.2
3. Diabetes	40	61.5	18.6	15.0
4. Cerebrovascular Disease	40	61.0	54.4	43.6
5. Chronic Lower Respiratory Disease	29	43.4	25.2	23.3
6. Septicemia	15	23.3	20.3	17.8
7. Kidney Disease	16	23.1	28.7	na
8. Unintentional Motor Vehicle Injury	12	20.5	47.8	40.5
9. Suicide	8	14.8	9.1	8.8
10. Pneumonia and Influenza	9	14.3	4.4	4.0
11. Unintentional Non-Motor Vehicle Injury	9	13.8	14.2	na
12. Alzheimer's Disease	9	13.4	28.4	24.8
13. Chronic Liver Disease and Cirrhosis	5	7.0	7.2	6.2
14. Homicide	4	5.7	18.8	na
15. HIV/AIDS	0	0.0	11.9	10.9
<b>Total Deaths All Causes (some causes not listed)</b>	462			
Source	a	a	a	b
a - NC State Center for Health Statistics, County-level Data. County Health Databook. 2010 County Health Data Book. 2004-2008 Race-Sex-Specific Age-Adjusted Death Rates by County. <a href="http://www.schs.state.nc.us/SCHS/data/databook/">http://www.schs.state.nc.us/SCHS/data/databook/</a>				
b - National Center for Health Statistics. Information Showcase. Health, United States, 2009. Complete Report. Table 26: Age-adjusted death rates for selected causes of death. (Data from 2006) <a href="http://www.cdc.gov/nchs/data/hus/hus09.pdf">http://www.cdc.gov/nchs/data/hus/hus09.pdf</a>				

## State and National Mortality Rate Comparisons

Compared to North Carolina, Gates County had **higher** age-adjusted mortality rates in 2004-2008 for:

- **Diabetes** – by **231%**
- **Pneumonia and Influenza** - by **225%**
- **Chronic lower respiratory disease** – by **72%**
- **Suicide** - by **63%**
- **Septicemia** – by **15%**
- **Cerebrovascular disease** - by **12%**
- **Total cancer** – by **7%**

Compared to the national mortality rates available (54), Gates County has higher rates of:

- **Diabetes** – by **310%**
- **Pneumonia and Influenza** - by **258%**
- **Chronic lower respiratory disease** – by **86%**
- **Suicide** - by **68%**
- **Cerebrovascular disease** - by **40%**
- **Septicemia** – by **31%**
- **Total cancer** – by **14%**
- **Chronic liver disease and cirrhosis** – by **13%**

## Gender Disparities in Mortality

Table 26 compares mortality rates for the leading causes of death for males and females in Gates County. The mortality data cited in this section were obtained from the North Carolina State Center for Health Statistics except as noted and represent the period from 2004-2008.

**Table 26. Age-adjusted Mortality Rates by Gender, Gates County (2004-2008)**

CAUSE OF DEATH:	Male Deaths	Male Rate	Female Deaths	Female Rate	Overall Deaths	Overall Rate
<b>All Causes</b>	293	1043.6	287	755.0	580	888.6
<b>Diseases of Heart</b>	63	216.9	68	168.9	131	195.8
----Acute Myocardial Infarction	18	61.1	18	45.6	36	53.8
----Other Ischemic Heart Disease	27	93.8	20	49.2	47	70.5
<b>Cerebrovascular Disease</b>	15	54.5	25	64.5	40	61.0
<b>Cancer</b>	72	249.7	63	174.8	135	205.9
----Colon, Rectum, and Anus	7	22.5	10	28.6	17	25.6
----Pancreas	1	2.7	5	14.2	6	9.0
----Trachea, Bronchus, and Lung	27	96.5	16	43.6	43	65.4
----Female Breast	0	0.0	8	22.8	8	22.8
----Prostate	9	31.9	0	0.0	9	31.9
<b>Diabetes Mellitus</b>	19	66.5	21	57.2	40	61.5
<b>Pneumonia and Influenza</b>	3	11.5	6	14.2	9	14.3
<b>Chronic Lower Respiratory Diseases</b>	14	54.6	15	40.1	29	43.4
<b>Chronic Liver Disease and Cirrhosis</b>	2	5.7	3	8.2	5	7.0
<b>Septicemia</b>	7	26.9	8	21.6	15	23.3
<b>Nephritis, Nephrotic Syndrome, and Nephrosis</b>	8	26.4	8	20.3	16	23.1
<b>Unintentional Motor Vehicle Injuries</b>	8	29.4	4	12.3	12	20.5
<b>All Other Unintentional Injuries</b>	6	19.8	3	7.9	9	13.8
<b>Suicide</b>	8	30.7	0	0.0	8	14.8
<b>Homicide</b>	3	8.7	1	2.5	4	5.7
<b>Alzheimer's disease</b>	4	17.0	5	11.5	9	13.4
<b>Acquired Immune Deficiency Syndrome</b>	0	0.0	0	0.0	0	0.0

Source: North Carolina State Center for Health Statistics, 2010 County Health Databook

In comparing rates – including mortality rates – it is important to consider the base number of events on which each rate was calculated. When the number of events is small, the rate calculated from that number may be unstable and neither a reliable measure nor a valid predictor. Because populations of the counties in the Albemarle Region are small, the numbers of events in a particular population group, and sometimes the overall population, are often small. This report will **not** analyze rate differences or disparities for any cause of death for which there were five or fewer aggregate deaths during the period in question for any of the populations being compared. In Gates County, small numbers of events will limit comparison of gender and racial differences in mortality rates.

Following the caveat discussed above there are nevertheless some valid differences in mortality rates between males and females in Gates County:

For all deaths combined, Gates County males have a 38% higher mortality rate than females.

Compared to the mortality rates for Gates County females, the mortality rates among Gates County **males are higher in 2004-2008** for:

- **Trachea, bronchus, and lung cancer** – by **121%**
- **Total cancer** – by **43%**
- **Chronic lower respiratory disease** – by **36%**
- **Kidney disease** - by **30%**
- **Heart disease** – by **28%**
- **Septicemia** - by **25%**
- **Diabetes** – by **16%**

Compared to the mortality rates for Gates County females, the mortality rates among Gates County **females are higher** for:

- **Cerebrovascular disease** – by **18%**
- **Colorectal cancer** - by **27%**

## **Racial Disparities in Mortality**

Racial disparities in mortality are covered in detail in the discussion of specific diseases and health conditions in the sections that follow. Note that because the numbers of deaths in the minority population due to certain causes are quite small, the caveat set forth in the previous section on gender disparities in mortality will be applied: mortality rates will *not* be analyzed for racial disparities for any cause of death for which there were five or fewer aggregate white or minority deaths during the period in question.

For all causes of death, the age-adjusted mortality rate among minorities (964.9) in Gates County for the period from 2004 through 2008 is 14% higher than the overall age-adjusted mortality rate for whites (843.8). (SCHS County Data Book).

Following the previously described guideline, for the period from 2004 through 2008 mortality rates in Gates County were **higher among minorities than among whites** for:

- **Total cancer** – by **38%**
- **Colorectal cancer** - by **211%**
- **Diabetes** – by **99%**
- **Kidney disease** - by **176%**
- **Unintentional motor vehicle injury** – by **70%**

Following the same guidelines, mortality rates in Gates County were **higher among whites than among minorities** for:

- **Chronic lower respiratory disease** – by **29%**

- **Heart disease** – by 13%
- **Lung cancer** – by 21%
- **Cerebrovascular disease** – by 17%

## Cancer

### Total Cancer

Cancer is the group of diseases characterized by the uncontrollable growth and spread of abnormal body cells. If the disease remains unchecked, it can result in death (55). Cancers of all kinds are sometimes grouped together in a parameter called “total cancer”. In 2008, Gates County hospital charges associated with cancer diagnoses totaled \$402,000 (56).

Cancer incidence and mortality data for Gates County were obtained from the North Carolina Cancer Registry, which collects data on newly diagnosed cases from North Carolina clinics and hospitals, as well as on North Carolina residents whose cancers were diagnosed at medical facilities in bordering states.

### Total Cancer Incidence

Table 27 shows age-adjusted total cancer incidence rates for the period 2002-2006, as well as comparable rates for colorectal, lung, breast, and prostate cancers. There were 202 newly diagnosed cases of cancer of all types combined in Gates County between 2002 and 2006. The incidence rate for all cancers in Gates County (326.9) is 31% below the rate in the state (477.0).

**Table 27. Cancer Incidence (2002-2006)**

County	All Cancer		Colorectal Cancer		Lung Cancer		Female Breast Cancer		Prostate Cancer	
	# Cases	Incidence Rate	# Cases	Incidence Rate	# Cases	Incidence Rate	# Cases	Incidence Rate	# Cases	Incidence Rate
Gates	202	326.9	33	54.0	35	57.1	33	94.1	33	112.9
State Total	207,251	477.0	20,843	48.4	32,376	75.0	35,163	147.2	29,402	153.2
NC County Avg.	2,073	n/a	208	n/a	324	n/a	352	n/a	294	n/a
Source	NC State Center for Health Statistics, <a href="http://www.schs.state.nc.us/SCHS/healthstats/databook/">http://www.schs.state.nc.us/SCHS/healthstats/databook/</a>									

Nationally, the age-adjusted cancer incidence rate for all types of cancer for the most recent available year (2006) was 439.9 (54). Incidence rates for individual cancers will be presented and discussed subsequently.

### Total Cancer Mortality

Cancer is the **leading** cause of death among Gates County residents (cited previously), resulting in 135 deaths between 2004 and 2008. The mortality rate for all types of cancer in Gates County for that period was 205.9 deaths per 100,000, which was above

the state rate of 192.5. Since 1984, the total cancer mortality rate has increased overall, remaining above the state rate throughout the period cited.

The Healthy Carolinians 2010 goal for total cancer is a mortality rate of 166.2 per 100,000 (57), a target currently exceeded by 24% in Gates County. The county also exceeds the Healthy People 2010 target of 159.3 deaths per 100,000 by 29% (58). The national mortality rate for all types of cancer was 180.7 per 100,000 in 2006, with cancer ranking as the second leading cause of death (54). For 2004-2008, Gates County and North Carolina exceeded the national rate.

Within the Chronic Disease committee, the Cancer Support Group Subcommittee meets once a month in Gates County. This support group is used to educate individuals about cancer, as well as to support those who are living with cancer or those who have survived cancer.

Peer County age-adjusted cancer mortality rates for 2007 shown in table 28.

**Table 28. Cancer Deaths per 100,000 Population**

<b>RESIDENCE</b>		<b>2007</b>
North Carolina		192.1
<i>Gates</i>		246.4
<b>PEERS</b>	Caswell	169.9
	Chowan	234.6
	Jones	139.8
	Swain	202.9

### **Gender and Racial Disparities in Total Cancer Mortality**

Nationally, among people of all ethnicities, the overall cancer incidence rate was highest in the white, not Hispanic or Latino population (471.7) in 2006; among men, the incidence rate was significantly higher for black males (572.8) than for any other race; among women, the incidence rate was higher for white, non Hispanic white women than for minority women (54).

In Gates County, minority males have a 53% higher rate of death due to cancer than white males. Minority females have a 29% higher rate of death due to cancer than white females. Among white men in Gates County, the mortality rate due to all types of cancer is 32% higher than the rate among white women, and the mortality rate for minority men is 57% higher than the rate among minority women.

## **Breast Cancer**

### **Breast Cancer Incidence**

Between 2002 and 2006, breast cancer was the second most commonly diagnosed cancer in Gates County, with 33 new cases diagnosed during that period (Table 27, cited previously). Nationally, breast cancer is the second most commonly diagnosed cancer, with an incidence rate of 119.6 per 100,000 in 2006. The incidence rate is highest nationally among non-Hispanic white females (130.3 per 100,000) (54).

While the number of new breast cancer cases has slightly increased overall in the state since 1998, the county incidence rate has decreased overall, remaining below state levels throughout the period reported.

### **Breast Cancer Mortality**

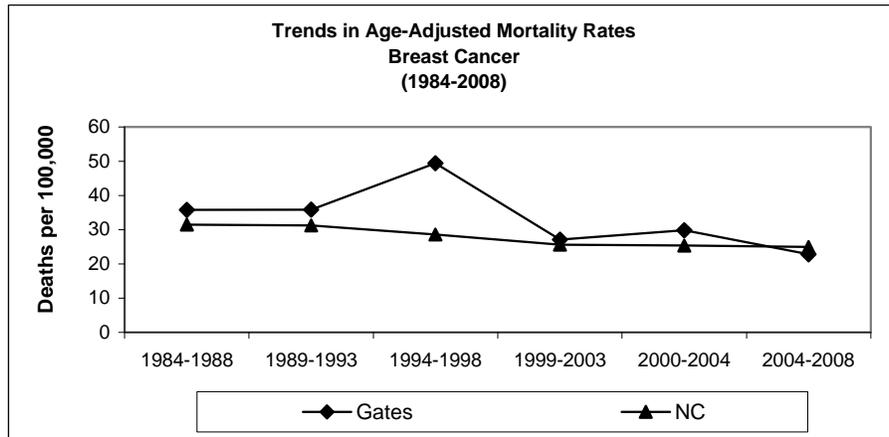
Between 2000 and 2004, eight people died of breast cancer in Gates County representing an age-adjusted mortality rate of 22.8 per 100,000. During this time, 63 people died in the average NC county (Table 29).

**Table 29. Breast Cancer Mortality (2000-2004)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	8	22.8	0	0.0	2	9.3	0	0.0	6	44.3
State Total	6,301	25.0	40	0.3	4,589	22.8	14	0.4	1,658	31.3
NC County Avg.	63	n/a	0	n/a	46	n/a	0	n/a	17	n/a
Source	NC State Center for Health Statistics, <a href="http://www.schs.state.nc.us/SCHS/healthstats/databook/">http://www.schs.state.nc.us/SCHS/healthstats/databook/</a>									

The breast cancer mortality rates in the state have decreased overall between 1984 and 2008. During the same period, the Gates County breast cancer mortality rate was more variable, perhaps due to varying small numbers of events (Figure 7).

**Figure 7**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2010 County Health Data, Mortality, 2004-2008 Race-Sex Specific Age-Adjusted Rates by County, <http://www.schs.state.nc.us/SCHS/data/databook/>.

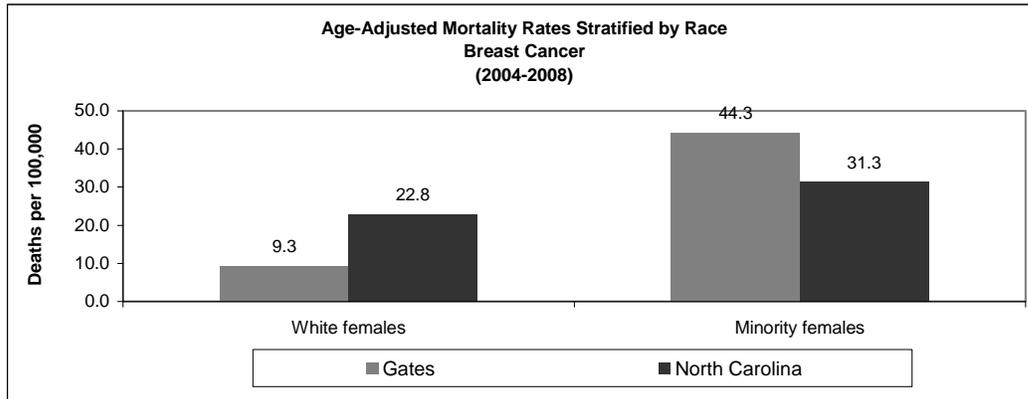
The Healthy Carolinians 2010 goal for breast cancer is a mortality rate of 22.6 per 100,000 (57). The Healthy People 2010 target rate is 22.3 per 100,000 females (58). The breast cancer mortality rate in Gates County currently exceeds these goals by approximately 1% and 2%, respectively.

### **Racial Disparities in Breast Cancer Mortality**

Figure 8 compares the 2004-2008 aggregate age-adjusted breast cancer mortality rates for white females and minority females in Gates County, the Albemarle Region, and North Carolina. The number of deaths among white females in Gates County was below the threshold for reliable mortality rate comparison. In the state as a whole, minority females die from breast cancer at a rate 37% higher than the rate for white females (20.9).

It should be noted that although rare, breast cancer does occur in males (59). No Gates County males died of breast cancer in the cited period.

**Figure 8**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2010 County Health Data, Mortality, 20004-2008 Race-Sex Specific Age-Adjusted Rates by County, <http://www.schs.state.nc.us/SCHS/data/databook/>.

## **Breast Cancer Risk Factors (59)**

Risk factors for breast cancer include:

- A personal or family history of breast cancer
- A biopsy-confirmed hyperplasia
- A long menstrual history (menstrual periods that started early and ended late in life)
- Obesity after menopause
- Recent use of oral contraceptives or postmenopausal estrogens and progestins
- Not having children or having a first child after age 30
- Consumption of alcoholic beverages

Suspected risk factors include:

- High breast density

## **Prostate Cancer**

### **Prostate Cancer Incidence**

During the 2002-2006 reporting period, there were 33 new cases of prostate cancer diagnosed in the county (Table 27, cited previously). More than \$63,000 was spent treating Gates County prostate cancer patients in 2008 (54).

Since 1998, the incidence rates for prostate cancer have fluctuated at the county and state levels, with a slight decline in the most recent period.

The county incidence rate (112.9) is currently 26% lower than the rate for the state (153.2).

As of 2006, prostate cancer had the highest incidence rate of all cancers nationwide, 155.1 new cases per 100,000. Nationally, the prostate cancer incidence rate was highest among African American males (217.1 per 100,000) (54).

## Prostate Cancer Mortality

The 2004-2008 Gates County prostate cancer mortality rates was significantly higher than that of the state as a whole (31.9 vs. 27.3) (Table 30). During that period, nine males in Gates County died from prostate cancer. Nationally, prostate cancer has the second highest mortality rate among the four main cancers (54). The Healthy People 2010 prostate cancer goal is 28.8 deaths per 100,000 males (58), a rate 11% lower than the current Gates County rate. Since 1984, the prostate cancer mortality rate in the county has fluctuated, while the rate has fallen in the state.

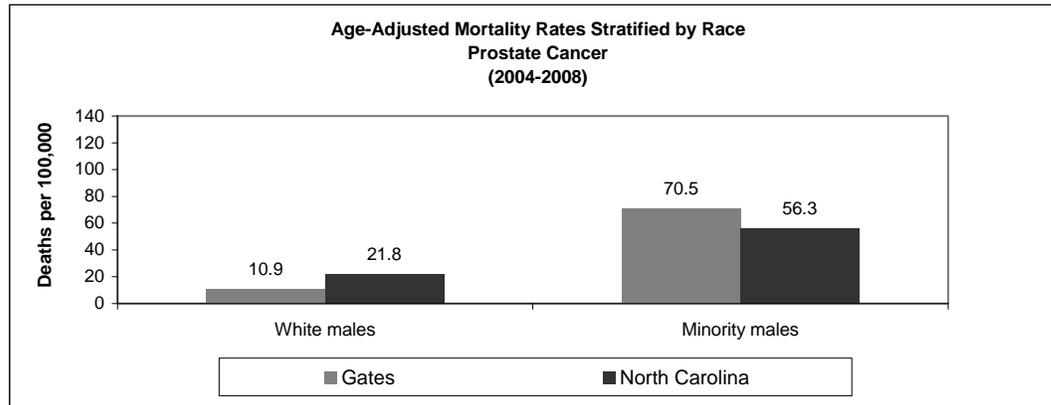
**Table 30. Prostate Cancer Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	9	31.9	2	10.9	0	0.0	7	70.5	0	0.0
State Total	4,314	27.3	2,855	21.8	0	0.0	1,459	56.3	0	0.0
NC County Avg.	43	n/a	29	n/a	0	n/a	15	n/a	0	n/a
Source	NC State Center for Health Statistics, <a href="http://www.schs.state.nc.us/SCHS/healthstats/databook/">http://www.schs.state.nc.us/SCHS/healthstats/databook/</a>									

## Racial Disparities in Prostate Cancer Mortality

Figure 9 compares 2004-2008 aggregate age-adjusted prostate cancer mortality rates for white males and minority males in Gates County and North Carolina. In the county, the number of prostate cancer deaths among white males during this period was below the threshold for meaningful mortality rate comparison. At the state level, the difference in prostate cancer mortality rates between minorities and whites is profound (56.3 vs. 21.8).

**Figure 9**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2010 County Health Data, Mortality, 2004-2008 Race-Sex Specific Age-Adjusted Rates by County, <http://www.schs.state.nc.us/SCHS/data/databook/>.

## **Prostate Cancer Risk Factors (59)**

Risk factors for prostate cancer include:

- Increasing age
- Familial predisposition (may be responsible for 5-10 percent of cases)

A suspected risk factor is:

- High fat consumption

## **Colon and Rectal Cancer**

### **Colorectal Cancer Incidence**

Cancers of the colon and rectum accounted for 33 new cancer diagnoses in Gates County between 2002 and 2006, making it the fourth most commonly diagnosed cancer in the county in terms of rate (Table 31, cited previously). The local incidence rate (54.0) for colon and rectal cancer was 12% higher than the rate for the state as a whole (48.4). In 2008, hospital charges attributable to colorectal cancers among Gates County residents were more than \$76,000 (56).

Colorectal cancer was the fourth most commonly diagnosed cancer in the US in 2006, with a national incidence rate of 51.1 new cases per 100,000 among males and 40.2 new cases per 100,000 among females. Nationally, incidence rates were highest among black men (61.4) and black women (51.9) (54).

Since 1998, the Gates County colorectal cancer incidence rate has fluctuated, but decreased overall. The county rate remained above the state rate throughout the period cited.

## Colorectal Cancer Mortality

The overall colorectal mortality rate in Gates County was above the rate for the state as a whole for the period between 2004 and 2008 (Table 31). During this period, 17 people in Gates County died from colorectal cancer, representing an age-adjusted mortality rate of 25.6 per 100,000.

**Table 31. Colorectal Cancer Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	17	25.6	2	10.3	4	17.5	5	44.4	6	47.5
State Total	7,627	17.3	2,932	19.4	2,798	13.5	917	27.0	980	19.4
NC County Avg.	76	n/a	29	n/a	28	n/a	9	n/a	10	n/a

Source: NC State Center for Health Statistics, <http://www.schs.state.nc.us/SCHS/healthstats/databook/>

Of the four major cancer types, colorectal cancer had the lowest national mortality rate: 20.5 per 100,000 in 2006 (54). The current mortality rate for Gates County is 25% higher than the 2006 national mortality rate. The comparable rate for North Carolina is slightly below the national rate.

The Healthy Carolinians 2010 target rate for colorectal mortality is 16.4 deaths per 100,000 (57), a rate Gates County has exceeded by 56%.

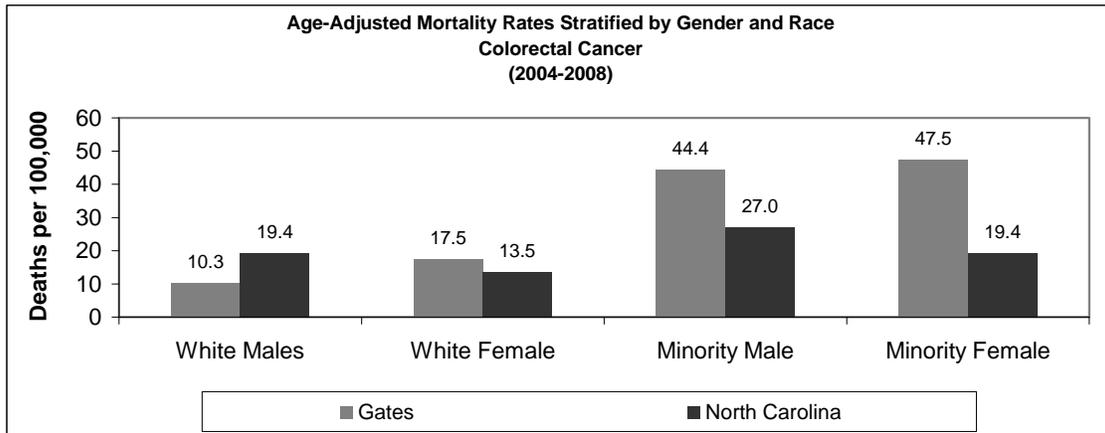
The state colorectal mortality rates have both been steadily declining since 1984, as has the Gates County rate except for a surge between 1994 and 1998 and since 2004. Again, note that varying small numbers of events in the county may contribute to unstable rates.

## Gender and Racial Disparities in Colorectal Cancer Mortality

In Gates County, the numbers of colorectal cancer deaths were below the threshold for meaningful local mortality rate comparisons. On the state level, however, the colorectal cancer mortality rate among minority men was 33% higher than the rate among white men; the mortality rate for minority women was 44% higher than the rate among white women.

The state mortality rate among white men is 44% higher than among white women. In the state, the mortality rate among minority males is 39% higher than the rate among minority females. For the reason cited above, no other mortality rates can be compared (Figure 10).

**Figure 10**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2010 County Health Data, Mortality, 2004-2008 Race-Sex Specific Age-Adjusted Rates by County, <http://www.schs.state.nc.us/SCHS/data/databook/>.

## Colorectal Cancer Risk Factors (59)

Risk factors for colorectal cancer include:

- Personal or family history of rectal polyps
- Inflammatory bowel disease

Other suspected risk factors include:

- Smoking
- Physical inactivity
- High-fat diet
- Low-fiber diet
- Alcohol consumption

## Lung Cancer

### Lung Cancer Incidence

Lung cancer was the third most commonly diagnosed cancer in Gates County between 2002 and 2006. During that period, 35 new cases of trachea, bronchus, and lung cancer were diagnosed. The resulting aggregate incidence rate of 57.1 per 100,000 was below the incidence rate for the state (75.0) (Table 27, cited previously). In 2008, hospital charges for the treatment of lung cancer in Gates County residents totaled almost \$45,000 (56).

Since 1998, Gates County has experienced an overall increase in the trachea, bronchus, and lung cancer incidence rate. During this period, the county rate has been below the state rate, which has gradually increased.

## Lung Cancer Mortality Rates

Between 2004 and 2008, a total of 46 people died of lung cancer in Gates County (59). The 2004-2008 lung cancer mortality rates in Gates County were higher than the rate in the state (65.4 vs. 59.1) (Table 32).

Nationally, lung cancer is the leading cause of death from cancer with a mortality rate of 51.7 per 100,000 in 2006 (54). Gates County's current lung cancer mortality rate exceeds the national rate by 26%. The Healthy People 2010 goal is to reduce the lung cancer mortality rate to 44.9 per 100,000 (58). Gates County currently exceeds this target rate by 46%.

**Table 32. Lung Cancer Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	43	65.4	16	95.7	12	54.6	11	98.7	4	28.5
State Total	26,325	59.1	12,507	80.2	9,108	44.9	3,035	88.7	1,675	33.2
NC County Avg.	263	n/a	125	n/a	91	n/a	30	n/a	17	n/a
Source	NC State Center for Health Statistics, <a href="http://www.schs.state.nc.us/SCHS/healthstats/databook/">http://www.schs.state.nc.us/SCHS/healthstats/databook/</a>									

The lung cancer mortality rates in the state have increased overall between 1984 and 2008. Except for two periods of decline, the Gates County lung cancer mortality rate exceeded the state rate.

## Gender and Racial Disparities in Lung Cancer Mortality

The number of lung cancer deaths during the period among minority females in Gates County was below the threshold for meaningful mortality rate comparisons involving this group. Other comparisons, however, are valid.

In Gates County, the lung cancer mortality rate among white men (95.7) is 70% higher than the rate among white women (56.4), and the rate among minority men (98.7) is 3% greater than the rate among white men (95.7). Statewide, the lung cancer mortality rate for white men (80.2) is 70% higher than the rate for white women (44.9) and the rate for minority men (88.7) is more than three times the rate for minority women (33.2).

## Lung Cancer Risk Factors (59)

Risk factors for lung cancer include:

- Cigarette smoking
- Exposure to arsenic
- Exposure to some organic chemicals, radon, and asbestos
- Radiation exposure from occupational, medical, and environmental sources
- Air pollution

- Tuberculosis
- Secondhand exposure to tobacco smoke

## Heart Disease and Stroke

Heart disease and cerebrovascular disease (stroke) are both diseases of the circulatory system. While heart disease is any disease that diminishes or interrupts blood supply to the heart, stroke is an interruption in blood supply to the brain. The most common cause of both of these diseases is a narrowing or blockage of arteries that supply the heart and brain, respectively (55).

### Heart Disease and Stroke Incidence

Hospital utilization data provided by the NC-SCHS for Table 33 gives some indication of the burden of heart disease in Gates County. Heart disease and cerebrovascular disease together account for more hospitalizations than any other condition. Consequently, costs due to these two conditions were greater than any other condition in the county, together accounting for over \$2.2 million in hospital charges in 2008 (56).

It should be noted that the usefulness of hospital discharge information is limited in that it does not include people who may have cardiovascular or cerebrovascular conditions but have *not* sought medical care or been hospitalized. The category represented in Table 33 includes not only diagnoses of heart disease and cerebrovascular disease, but other diseases of cardiovascular and circulatory systems as well. Therefore, the sum of the rates for heart disease and cerebrovascular disease will not add up to the total discharge rates for all cardiovascular and circulatory diseases.

**Table 33. Inpatient Hospital Utilization and Charges for Heart and Cerebrovascular Disease (2008)**

DIAGNOSTIC CATEGORY	TOTAL CASES	DISCHARGE RATE (PER 1,000 POP)	AVERAGE DAYS STAY	DAYS STAY RATE (PER 1,000 POP)	TOTAL CHARGES	AVERAGE CHARGE PER DAY	AVERAGE CHARGE PER CASE
<b>CARDIOVASCULAR &amp; CIRCULATORY DISEASES</b>	110	9.3	4.3	40.0	\$2,233,299	\$4,722	\$20,303
-- Heart Disease	78	6.6	4.2	27.8	\$1,663,869	\$5,057	\$21,332
-- Cerebrovascular Disease	21	1.8	4.5	7.9	\$367,723	\$3,912	\$17,511

### Heart Disease Mortality

Heart disease and stroke are the **second** and **fourth** leading causes of death among Gates County residents. For the 2004-2008 time period, 131 Gates County residents died of heart disease and 40 died of stroke (cited previously).

The most recent data (aggregated for the years 2004-2008) show that county mortality due to heart disease (195.8) is lower than the state rate (202.2) (Table 34). Since 1984,

the mortality rate due to heart disease in Gates has approximately paralleled a decreasing trend seen at the state level.

**Table 34. Heart Disease Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	131	195.8	43	243.0	41	165.8	20	183.1	27	173.3
State Total	87,332	202.2	35,043	248.4	33,582	154.1	9,307	289.1	9,337	186.1
NC Avg.	873	na	350	na	336	na	93	na	93	na
Source	NC State Center for Health Statistics. 2010 County Health Data Book. <a href="http://www.schs.state.nc.us/SCHS/data/databook">http://www.schs.state.nc.us/SCHS/data/databook</a>									

## Stroke Mortality

The county mortality rate for stroke (61.0) is higher than the comparable rate in the state as a whole (54.4) (Table 35). Between 1984 and 2008, the mortality rate due to stroke in Gates County fluctuated and decreased overall while the comparable state rate showed a steady decline.

**Table 35. Cerebrovascular Disease Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	40	61.0	8	47.7	18	76.5	7	66.0	7	46.6
State Total	23,158	54.4	6,763	50.9	10,688	48.9	2,432	78.5	3,275	65.7
NC County Avg.	232	n/a	68	n/a	107	n/a	24	n/a	33	n/a
Source	NC State Center for Health Statistics, 2010 County Health Databook. <a href="http://www.schs.state.nc.us/SCHS/healthstats/databook/">http://www.schs.state.nc.us/SCHS/healthstats/databook/</a>									

The Healthy Carolinians 2010 goal is to reduce the heart disease mortality rate to 219.8 per 100,000 (57); Gates County is currently below that target. Nationally, the mortality rate due to heart disease is 200.2 (54), which is 2% higher than the mortality rate among Gates County residents and less than 1% lower than the rate statewide. The Healthy People 2010 goal is to reduce mortality due to heart disease to 166 per 100,000 (58); Gates County exceeds this goal by 18%.

The Healthy Carolinians 2010 goal is to reduce the mortality rate due to stroke to 61 deaths per 100,000 population (57), a rate Gates County matches. The most recent (2006) death rate due to stroke in the United States is 43.6 per 100,000 population (54), a rate exceeded in Gates County by 40%. The state mortality rate also exceeds that of the country as whole though by a lesser amount.

## **Gender and Racial Disparities in Heart Disease and Stroke Mortality**

In Gates County, minority males have a 25% lower mortality rate (183.1) due to heart disease than white males (243.0). Minority females in Gates County have a 5% higher mortality rate (173.3) due to heart disease than white females (165.8).

Gender disparities in heart disease mortality exist among both whites and minorities in Gates County. The heart disease mortality rate among minority females is 5% lower than the rate among minority males. Note that in Gates County the heart disease mortality rate among minority males is lower than the comparable rate at the state level. The heart disease mortality rate among white males is 47% higher than the rate among white females.

In Gates County, the cerebrovascular disease mortality rate among white males is higher than the comparable state and regional rates; for all other sex-race groups, local mortality rates are below regional and state levels. The cerebrovascular disease mortality rate among minority males (66) is 38% higher than the rate for white males (47.7); the rate among minority females (46.6) is 39% lower than the rate among white females (76.5). The cerebrovascular disease mortality rate among white females is 60% higher than the rate among white males. The mortality rate due to cerebrovascular disease among minority females is 29% lower than the rate among minority males.

### **Risk Factors for Heart Disease and Stroke (55)**

- Age (65 or older for heart disease, 55 or older for stroke)
- Gender (male)
- Heredity/family history
- Race (especially African American)
- Tobacco use
- High cholesterol
- High blood pressure
- Physical inactivity
- Obesity/overweight
- Diabetes
- Stress
- Alcohol abuse

India Foy, Northeastern NC Heart Disease & Stroke Prevention Coordinator, conducted a Heart Disease & Stroke training session. It was open to all churches within Gates County who had a First Aid Ministry within their church. The session was held on Saturday, October 2, 2010, and lasted 1.5 hours.

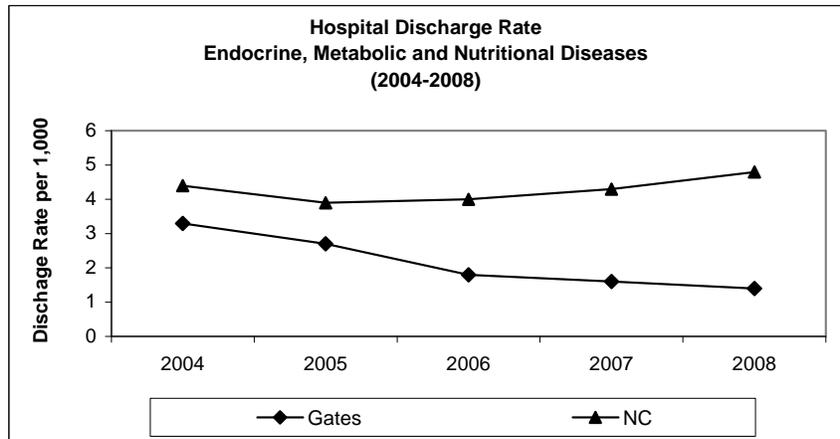
## Diabetes

Diabetes is a disorder of the metabolic system resulting from a shortage of insulin, a hormone that allows sugar to enter body cells and convert into energy. If diabetes is uncontrolled, sugar and fats remain in the blood, over time damaging vital organs (55). Diabetes was the **third** leading cause of death in Gates County in 2004-2008 and caused almost \$145,000 in hospital charges to county citizens in 2008 (56).

## Diabetes Incidence

Incidence data for diabetes is not routinely available; thus it is necessary to estimate incidence by other means, such as hospital discharge rates. In Gates County in 2008, the hospital discharge rate for endocrine, metabolic and nutritional diseases (including diabetes) was 1.4 discharges per 1,000, over 71% lower than the state rate (4.8 per 1,000). The county discharge rate declined between 2004 and 2008 (Figure 11). The local discharge rate associated with *diabetes alone* was 0.7 per 1,000. Note that hospital discharge information tends to underestimate the true extent of diabetes in the population, because it does not include people being treated for diabetes who do not require hospitalization.

Figure 11



Hospital Discharge Rate, Endocrine, Metabolic and Nutritional Diseases (Diabetes) Source: North Carolina State Center for Health Statistics, Databook, <http://www.schs.state.nc.us/SCHS/data/databook/>.

The Healthy People 2010 target is no more than 5.4 hospitalizations per 10,000 (58), a population base 10 times larger than the base customarily used in North Carolina. Converted to the national base, the current rate in Gates County would be 14 rather than 1.4, which is more than twice the Healthy People 2010 goal.

## Diabetes Mortality

Between 2004 and 2008, 40 deaths in Gates County were caused by diabetes, leading to a mortality rate of 61.5 deaths per 100,000 (Table 36). This rate is 144% higher than the state average. Since 1984, the county mortality rate due to diabetes has increased above the state rate, which also rose over the period, though there has been a slight decline on the state level in the 2004-2008 period.

**Table 36. Diabetes Mortality (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	40	61.5	8	41.0	10	44.7	11	107.8	11	76.2
State Total	11,049	25.2	3,636	24.1	3,368	16.2	1,723	51.3	2,322	46.9
NC County Avg.	110	n/a	36	n/a	34	n/a	17	n/a	23	n/a

Source: NC State Center for Health Statistics, 2010 County Health Databook. <http://www.schs.state.nc.us/SCHS/healthstats/databook/>

The current Healthy Carolinians goal for diabetes-related mortality is 67.4 per 100,000 population (57). In 2006, the national mortality rate was 23.1 per 100,000 (54). The Healthy People 2010 target for deaths due to diabetes is 45.0 per 100,000 (58).

Table 37 shows the Diabetes deaths within Gates County compared to its peer counties in 2007.

**Table 37. Diabetes Deaths per 100,000 Population**

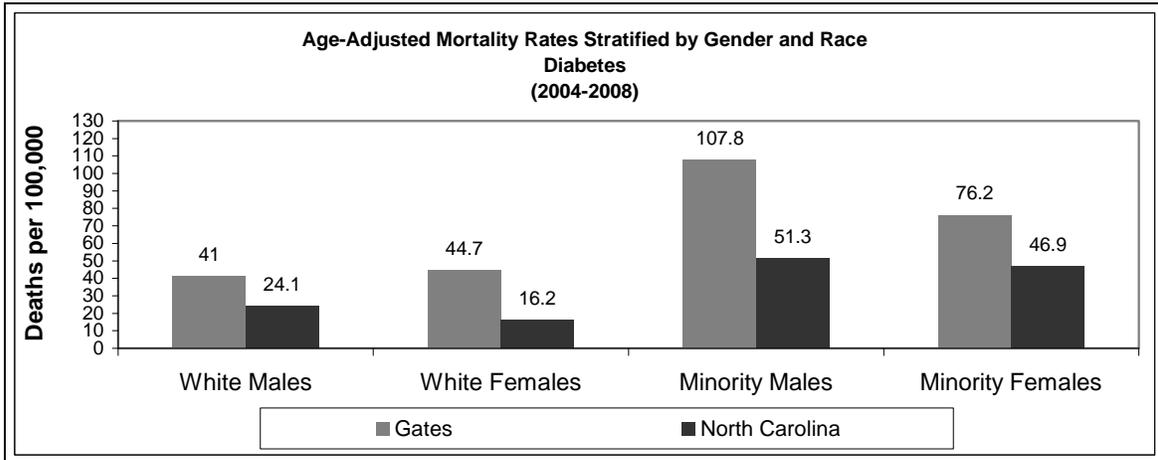
RESIDENCE		2007
North Carolina		23.8
<i>Gates</i>		33.6
<b>PEERS</b>	Caswell	29.7
	Chowan	14.8
	Jones	43.8
	Swain	49.7

## Gender and Racial Disparities in Diabetes Mortality

Figure 12 plots the 2004-2008 age-adjusted rates for diabetes. The number of deaths due to diabetes among white males was below the threshold for reliable mortality rate comparison in Gates County, but other county level comparisons are valid. The mortality rate among Gates County minority males is 41% greater than the rate for minority females. On the state level, the gender disparities were relatively small.

There appear to be racial disparities in diabetes mortality in Gates County, the Albemarle Region and the state. In the county, the mortality rate among minority females is 70% greater than the rate among white females. At the state level, the diabetes mortality rate is dramatically higher among minority males than among white males and also much higher among minority females than white females.

**Figure 12**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2010 County Health Data, Mortality, 2004-2008 Race-Sex Specific Age-Adjusted Rates by County, <http://www.schs.state.nc.us/SCHS/data/databook/>

## Diabetes Risk Factors

Risk factors for diabetes include: older age, obesity, family history of diabetes, prior history of gestational diabetes, impaired glucose tolerance, and physical inactivity (55).

GP4H Chronic Disease Subcommittee, along with College of the Albemarle (COA), conducted a 22.5 hour training class for Gates County residents that focused on diabetes education and prevention. Members who completed the class became Community Health Ambassadors in which enabled them to educate the public with what they learned. The program started with twenty-nine participants, and eighteen participants completed it.

A Diabetes Support Group was recently implemented within Gates County titled “Mission Gates”, Train the Trainer. The support group meets quarterly and diabetes information is given to group members that they can share with their church families.

“Project Power” training was conducted October 2009 and was sponsored by the American Diabetes Association. Thirteen Gates County churches participated in the training, in which African American churches were targeted. The training focused on integrating diabetes information into the life of the church. The goal of Project Power is to improve the health of members with diabetes, and consists of four modules; (1) Fit for the Master’s Use, (2) Oh Taste and See, (3) Clean Heart, and (4) Diabetes Day. Representatives of Project Power meet every three months to receive updated information that can be shared with their Diabetes Support Groups within their local churches. Gates County’s first Diabetes Day is scheduled for January 29, 2011.

## Chronic Lower Respiratory Disease

According to the National Institutes of Health (NIH), chronic obstructive pulmonary disease (COPD) is a group of lung diseases involving limited airflow, airway inflammation and the destruction of lung tissue (55). In 1999, the NC State Center for Health Statistics started classifying COPD within the broader heading of chronic lower respiratory disease (CLRD), which was not used as a separate category previously. It can be assumed that COPD rates from pre-1999 can be compared to CLRD rates after 1999. Hospital charges for treating Gates County residents with CLRD totaled almost \$448,000 in 2008 (56).

### COPD/CLRD Mortality

COPD/CLRD was the **fifth** leading cause of death in Gates County for the period 2004-2008. Table 38 shows race-sex specific age-adjusted mortality rates for COPD/CLRD in Gates County and North Carolina. For this aggregate time period, the overall COPD/CLRD mortality rate in Gates County (43.4) was 9% lower than the state rate (47.8).

The national mortality rate for CLRD was 40.5 in 2006 (57), a rate lower than the state rate and the county. (54).

**Table 38. Chronic Lower Respiratory Disease Mortality, including COPD (2004-2008)**

County	Overall Rate		White Males		White Females		Minority Males		Minority Females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates	29	43.4	9	57.4	11	46.2	5	52.8	4	28.8
State Total	20,522	47.8	8,590	61.1	9,577	46.0	1,352	46.5	1,003	20.3
NC County Avg.	205	n/a	86	n/a	96	n/a	14	n/a	10	n/a

Source: NC State Center for Health Statistics, 2006 County Health Databook. <http://www.schs.state.nc.us/SCHS/healthstats/databook/>

COPD/CLRD mortality rates have increased overall since 1984 in the county and the state. During the 1989-1993 reporting period, the Gates County mortality rate surpassed the state rate. The county rates have dropped below the state rate in the 2005-2008 reporting period.

### Gender and Racial Disparities in COPD/CLRD Mortality

In Gates County, the mortality rate for white men (57.4) was 24% higher than the rate for white women (46.2). The numbers of COPD/CLRD deaths among minority men and women in the county were below the threshold for meaningful rate comparisons.

At the state level, however, the mortality rate due to COPD/CLRD among white men (61.1) was 33% higher than the rate among white women (46.0) and 31% higher than the rate among minority men (46.5). Statewide, white women die from COPD/CLRD at a rate more than twice that of minority women (46.0 versus 20.3). The statewide COPD/CLRD mortality rate among minority males is more than twice the rate among minority women.

## COPD/CLRD Risk Factors

The leading cause of COPD/CLRD is smoking, which leads to emphysema and chronic bronchitis, the two most common forms of COPD/CLRD. Other risk factors include environmental pollutants and passive smoking (exposure to secondhand smoke) (55).

## Septicemia

Septicemia is a rapidly progressing infection resulting from the presence of bacteria in the blood. The disease often arises from other infections throughout the body, such as meningitis, burns and wound infections. Septicemia can lead to septic shock wherein low blood pressure and low blood flow cause organ failure (55).

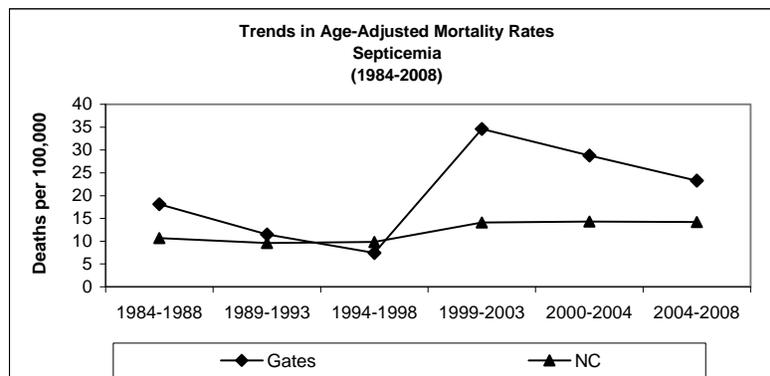
Septicemia was sixth leading cause of death in Gates County for the period 2004 through 2008. Septicemia had a mortality rate of 23.3, which was higher compared to the state rate of 20.3. Hospital charges associated with its treatment totaled over \$787,000 for county residents in 2008. Septicemia is certainly not as well known a health condition as heart disease, for example, but it costs even more to treat. In 2008, the per-case hospital charge associated with heart disease in Gates County averaged \$21,000; the comparable cost for a septicemia case was \$52,000 (56).

## Septicemia Mortality

During the 2004-2008 period there were 15 aggregate deaths due to septicemia in Gates County. These deaths compute to a county septicemia mortality rate of 23.3 per 100,000, a rate slightly higher than the state as a whole (20.3).

Since 1984, the septicemia mortality rates for the region and the state have risen overall. In Gates County, the septicemia mortality rate has also increased overall since 1984, and much more dramatically than in the state or region, perhaps due to varying small numbers of events (Figure 13).

Figure 13



Source: North Carolina Center for Health Statistics, North Carolina Vital Statistics, Volume 2, Leading Causes of Death (various years), <http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm>.

## Gender and Racial Disparities in Septicemia Mortality

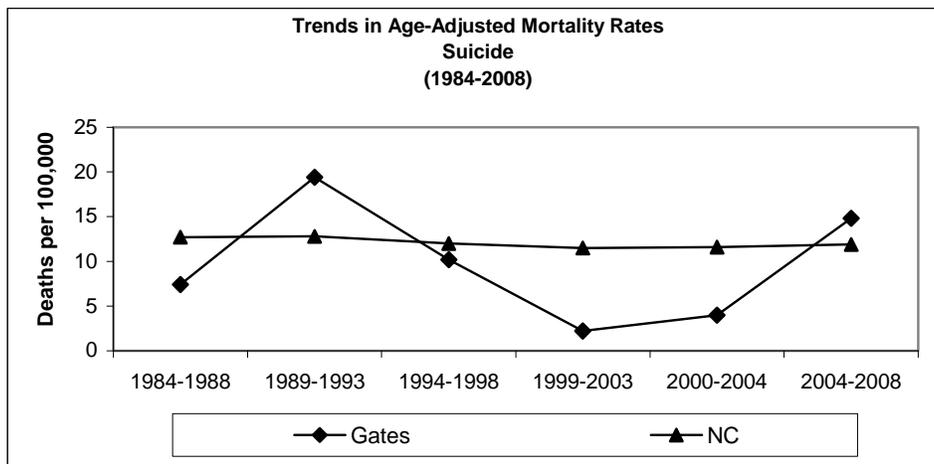
The numbers of septicemia deaths in Gates County were below the threshold for meaningful mortality rate comparisons at the county level among all groups. In terms of gender differences, the state septicemia mortality rate among minority men (24.5) was 26% higher than the rate among minority women (19.4); the mortality rate among white men (13.7) was 18% higher than white women (11.6).

At the state level, the mortality rate among minority women (19.4) was 67% higher than that among white women (11.6). The septicemia mortality rate among minority males (24.5) in North Carolina was almost twice the rate among white males (13.7).

## Suicide

Between 2004 and 2008, there were eight deaths due to suicide in Gates County, equaling a mortality rate of 14.8 and ranking as the ninth leading cause of death. Gates County mortality rate exceeds the overall state rate of 9.1. This rate is 85% higher than the Healthy Carolinian's suicide mortality rate goal of 8.0 (60), and 196% higher than the Healthy People goal of 5.0 (58). Suicide mortality rates in the state have remained fairly stable since 1984 while the mortality rates in Gates County have fluctuated, though remained lower than the state rate for most of the reporting period (Figure 14).

Figure 14



Source: North Carolina Center for Health Statistics,, North Carolina Vital Statistics, Volume 2, Leading Causes of Death (various years), <http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm>

## **Gender and Racial Disparities in Suicide Mortality**

The number of suicide related deaths in Gates County was below the threshold for meaningful mortality rate comparisons between race-sex groups at the county level. In North Carolina, the suicide mortality rate for white males (21.8) is more than three times the rate for white women (6.5) and over twice the rate for minority males.

## **Pneumonia and Influenza**

Pneumonia and influenza are diseases of the lungs. Influenza (the “flu”) is a contagious infection of the throat, mouth and lungs caused by an airborne virus. Pneumonia is an inflammation of the lungs caused by either bacteria or viruses. Bacterial pneumonia is the most common and serious form of pneumonia and among individuals with suppressed immune systems, it may follow influenza or the common cold (55). Pneumonia/influenza cost Gates County residents hospital charges totaling \$428,000 in 2008.

## **Pneumonia and Influenza Mortality**

Pneumonia/influenza was the tenth leading cause of death in Gates County in the period from 2004 to 2008, resulting in nine deaths. During this reporting period, the overall pneumonia/influenza mortality rate in Gates County (14.3) was over three times higher than the rate in the state as a whole (4.4).

Since 1984, the Gates County pneumonia/influenza mortality rate has fluctuated and decreased dramatically in the last two reporting periods falling well below the state level. Local and state pneumonia/influenza mortality rates have decreased overall.

## **Gender and Racial Disparities in Pneumonia/Influenza Mortality**

During the aggregate period 2004-2008, the numbers of pneumonia/influenza deaths among all groups in Gates County were below the threshold for meaningful mortality rate comparisons.

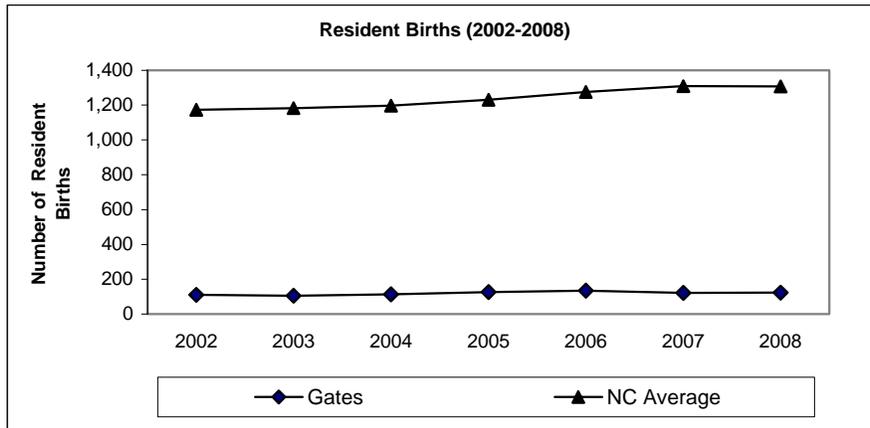
At the state level, the mortality rate among minority men (23.3) was 3% lower than the rate among white men (23.9). The mortality rate among white women in North Carolina (18.6) was 17% higher than the comparable rate among minority women (15.9).

## **Maternal and Child Health**

### **Adult and Teen Pregnancy and Birth Rates**

- Figure 15 plots the Gates County, Albemarle Region, and NC county averages for the annual number of live births from 2002 through 2008. In North Carolina, the number of live births has steadily increased since 2002 and remained significantly higher than the comparable Gates County average throughout the reporting periods.

**Figure 15**



- As monitored by the NC-SCHS, the pregnancy rate is the number of pregnancies per 1,000 women between the ages of 15 and 44 in the referenced population. The overall pregnancy rate in Gates County for the period from 2005 to 2007 was 70.5, which was 16% lower than the average NC county pregnancy rate of 83.9 (Table 39).
- The aggregate pregnancy rate was higher and aggregate birth rate among teens (15-19) in Gates County was lower than the comparable state rate during this period.
- In Gates County between 2005 and 2007, 39.7% of live births occurred among minority mothers. Of the Gates County live births among girls ages 15-19, 58.5% occurred among minority mothers.
- In 2007, Gates County had fewer births to Medicaid mothers than the state average.
- In 2007, Gates County had less than half the percentage of births to Health Department mothers and a 43% lower percentage of WIC mothers when compared to the state as a whole.

**Table 39. Pregnancies and Births (2005-2007)**

County	Pregnancy, Total (2005-2007)						Pregnancy, Females 15 - 19 (2005-2007)						2007 Percent of Live Births To:		
	Preg Rate	Birth Rate	Percent of Live Births				Preg Rate	Birth Rate	Percent of Live Births				Medicaid Moms	Health Dept. Moms	WIC Moms
			Minority	Low Weight	Late/No Care	Mother Smoked			Minority	Low Weight	Late/No Care	Mother Smoked			
Gates	70.5	57.3	39.7	12.5	13.1	13.8	64.2	47.2	58.5	11.3	20.8	13.2	45.2	8.1	23.0
Albemarle Average	77.7	63.3	36.3	11.0	14.3	12.6	70.2	53.6	48.8	12.4	24.0	11.7	57.3	20.8	43.3
NC County Avg.	83.9	68.2	27.8	9.2	17.3	11.5	62.6	47.9	40.0	11.2	29.9	14.6	51.8	21.2	40.0
Source	NC Health Statistics Pocket Guide. <a href="http://www.schs.state.nc.us/SCHS/data/pocketguide/2007/">http://www.schs.state.nc.us/SCHS/data/pocketguide/2007/</a>														

Table 40 shows the rates from Gates County’s peer counties as it relates to the percent of live births to mothers who are less than age 18.

**Table 40. % of Live Births to Mothers Less Than Age 18**

RESIDENCE		2007
North Carolina		3.8%
<i>Gates</i>		5.0%
PEERS	Caswell	4.8%
	Chowan	4.3%
	Jones	5.2%
	Swain	6.2%

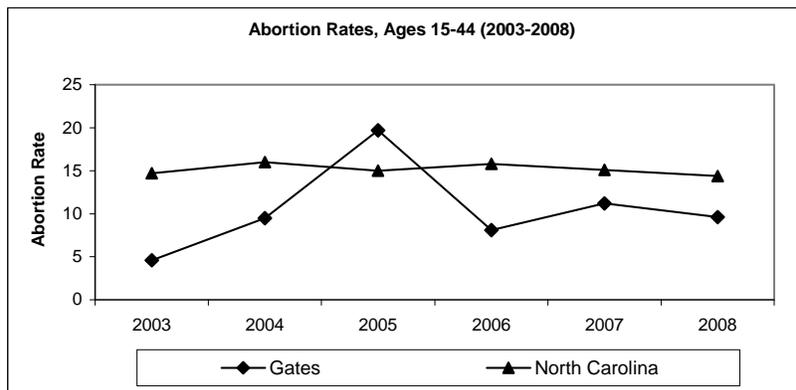
### Juvenile Pregnancies and Births

- There were no pregnancies among juveniles aged 10-14 in Gates County in 2008 (53).

### Abortion

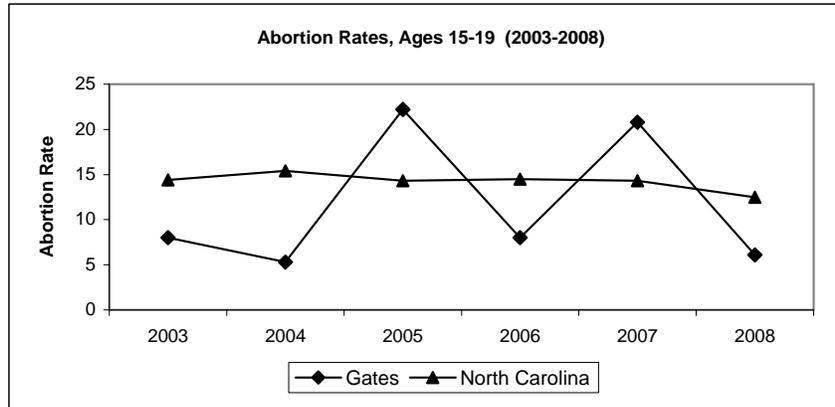
- For women between the ages of 15 and 44, the most recently calculated abortion rate in Gates County was 9.6; a number well below the overall state abortion rate of 14.4 (23).
- According to the data graphed in Figure 16, the annual abortion rates for Gates County women ages 15-44 have fluctuated since 2003 and increased overall. The statewide abortion rates have fluctuated less dramatically and remained generally higher than those in Gates County, except in 2005, when the rate in Gates County was higher than that in the state as a whole (Figure 16).

**Figure 16**



- For teenagers between the ages of 15 and 19, the 2008 abortion rate in Gates County was 6.1, less than half the statewide teen abortion rate of 12.5.
- Teen abortion rates also fluctuated in Gates County during the reporting period from 2003 through 2008 while statewide rates have remained more or less steady since 2003. Since 2003, the county teen abortion rate has fluctuated above and below the statewide rate (Figure 17).

**Figure 17**



Source: North Carolina State Center for Health Statistics, 2005-2010 County Health Databooks <http://www.schs.state.nc.us/SCHS/data/databook>.

## Pregnancy Risk Factors

- The percentage of high parity births among women aged <30 in Gates County from 2004-2008 was higher than the comparable state rate though by only a small margin (Table 41). According to NC-SCHS, a birth is high parity if the mother is younger than 18 when she has had one or more births, or aged 18 or 19 and has had two or more births, or is 20-24 and has had four or more births, etc.
- The percentage of high parity births among Gates County women age 30 and older was higher than the state rate.
- The percentage of short interval births (less than six months between pregnancies) was 6% higher in Gates County than statewide (Table 41).
- Between 2004 and 2008, approximately 13.4% of babies in Gates County were born to mothers who smoked, a rate higher than the state rate of 11.5% (Table 41).

**Table 41. High Risk Births (2004-2008)**

	High Parity Births				Short Interval Births		Births to Mothers who Smoke	
	Mothers Under 30		Mothers Over 30		Number	Percent	Number	Percent
	Number	Percent	Number	Percent				
Gates	84	18.9	39	22.4	53	13.4	83	13.4
State Total	74,440	18.0	43,711	20.0	53,431	12.7	72,513	11.5
Source	a	a	a	a	b	b	c	c

a - NC State Center for Health Statistics. County-level Data. County Health Databooks. 2010 County Health Data Book. 2004-2008 Number At Risk NC Live Births due to High Parity by County of Residence. <http://www.schs.state.nc.us/SCHS/data/databook/>

b - NC State Center for Health Statistics. County-level Data. County Health Databooks. 2010 County Health Databook. 2004-2008 NC Live Births by County of Residence; Number with Interval from Last Delivery to Conception of Six Months or Less. <http://www.schs.state.nc.us/SCHS/data/databook/>

c - NC State Center for Health Statistics. County-level Data. County Health Databooks. 2010 County Health Databook. 2004-2008 Number and Percent of Births to Mothers Who Smoked Prenatally. [Http://www.schs.state.nc.us/SCHS/data/databook](http://www.schs.state.nc.us/SCHS/data/databook/)

- During the period 2004-2008, approximately 87.7% of pregnant women in Gates County received prenatal care in the first trimester, a proportion higher than state rate of 82.1%.
- A higher percentage of black women received prenatal care in the first trimester in Gates County than in North Carolina as a whole (84.5% vs. 75.0%). The percentage of black Gates County women who received prenatal care in the first trimester was 4% lower than the comparable percentage for Gates County women overall.

## Pregnancy Outcomes

### **Low Birth Weight and Very Low Birth Weight**

- From 2004-2008, the total percentage of low birth weight births (below 2500 grams or 5.5 pounds) was higher in Gates County than in North Carolina as whole (12.6% vs. 9.1%). The percentages of white low birth weight babies and minority low birth weight babies in Gates County were both higher than comparable statewide percentages (Table 42).
- The percent of very low weight births (below 1500 grams or 3.3 pounds) in Gates County, both overall and among blacks, were equal to or lower than the comparable state rates for the period 2004-2008 (Table 42).
- Since 1999, the percentage of low weight births has increased in Gates County. The percentage of low weight births has remained relatively stable in North Carolina as a whole.

**Table 42. Number and Percent of Low and Very Low Birth Weight Births, by Race (2004-2008).**

	Low Birth Weight (<2500 grams) Births						Very Low Weight (<1500 grams) Births			
	Total		White		Minority		Total		Black	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Gates	78	12.6	33	8.6	45	19.1	11	1.8	7	3.1
State Total	57,823	9.1	33,941	7.4	23,882	13.6	11,649	1.8	5,198	3.5
Source	a	a	a	a	a	a	b	b	c	c

a - NC State Center for Health Statistics. County-level Data. County Health Databooks. County Health Data Book. Low Birth Weight Births by Race. <http://www.schs.state.nc.us/SCHS/data/databook/>

b - NC State Center for Health Statistics. County-level Data. County Health Databooks. County Health Data Book. Low (<2500 grams) and Very Low (<1500 grams) Weight Births. <http://www.schs.state.nc.us/SCHS/data/databook/>

c - NC State Center for Health Statistics. County-level Data. County Health Databooks. County Health Data Book. Low (<2500 grams) and Very Low (<1500 grams) Weight Black Births. <http://www.schs.state.nc.us/SCHS/data/databook/>

### Infant Mortality

- For 2004-2008, the total Gates County infant mortality rate (11.3) was higher than the statewide infant mortality rate (8.4).
- In the 2004-2008 reporting period, the infant mortality rate among Gates County minorities was 22% higher than the rate among Gates County whites.
- In 2008 alone, the Gates County infant mortality rate was 16.3, as almost double the statewide rate of 8.2.
- *However*, in 2008, there were two infant deaths in Gates County; rates calculated from small numbers of events tend to be unstable and should be compared with caution.

### Communicable Disease

Health professionals are required to report cases of certain communicable diseases to the North Carolina Department of Health and Human Services through their local health department. Gates County and North Carolina average data for several important infectious diseases are subject to this requirement.

### Reportable Communicable Disease

In the period from 1996 through 2000, the incidence rates for Hepatitis B was higher in Gates County than in the region and in the state as a whole. The local incidence rate for salmonellosis was higher than the regional rate but lower than the state rate (Table 43).

**Table 43. Communicable Disease Incidence (1996-2000)**

County	Hepatitis A		Hepatitis B		Salmonellosis		Tuberculosis		Whooping Cough	
	Cases	Incidence	Cases	Incidence	Cases	Incidence	Cases	Incidence	Cases	Incidence
Gates	n/a	n/a	5	9.7	6	11.7	2	3.9	n/a	n/a
State Total	864	n/a	1,325	n/a	6,480	n/a	2,447	n/a	649	n/a
NC County Avg.	9	2.2	13	3.4	65	16.6	24	6.3	6	1.7

Source: NC State Center for Health Statistics, 2002 County Health Databook. <http://www.schs.state.nc.us/SCHS/healthstats/databook/>

## **Sexually Transmitted Diseases**

Tables 44, 45, and 46 list incidence rates and cases for the most prevalent STDs in Gates County as well as HIV/AIDS. All are compared to the North Carolina state rate and cases for the five year period of 2005-2009.

**Table 44. N.C. STD Rate and County Comparison, 2005-2009**

RESIDENCE	Chlamydia					Gonorrhea					All Syphilis				
	2005 Rate	2006 Rate	2007 Rate	2008 Rate	2009 Rate	2005 Rate	2006 Rate	2007 Rate	2008 Rate	2009 Rate	2005 Rate	2006 Rate	2007 Rate	2008 Rate	2009 Rate
North Carolina	360.1	380.0	338.6	410.8	474.2	174.0	195.7	184.3	162.8	160.6	3.2	3.5	3.6	3.1	6.3
Gates	397.3	394.7	273.4	350.2	298.9	225.8	175.4	188.0	136.7	94.0	0.0	0.0	0.0	8.5	0.0

North Carolina 2009 HIV/STD Surveillance Report. Communicable Disease Branch.  
<http://www.epi.state.nc.us/epi/hiv/pdf/std09rpt.pdf>

**Table 45. N.C. HIV Disease Cases and County Comparison, 2005-2009**

RESIDENCE	2005 Cases	2006 Cases	2007 Cases	2008 Cases	2009 Cases	2005 Rate	2006 Rate	2007 Rate	2008 Rate	2009 Rate
North Carolina	1,600	1,642	1,807	1,782	1,710	18.5	18.6	20.0	19.3	18.5
Gates	1	0	0	1	2	9.0	0.0	0.0	8.5	17.1

North Carolina 2009 HIV/STD Surveillance Report. Communicable Disease Branch.  
<http://www.epi.state.nc.us/epi/hiv/pdf/std09rpt.pdf>

**Table 46. N.C. AIDS Cases and County Comparison, 2005-2009**

RESIDENCE	2005 Cases	2006 Cases	2007 Cases	2008 Cases	2009 Cases	2005 Rate	2006 Rate	2007 Rate	2008 Rate	2009 Rate
North Carolina	884	887	848	926	957	10.2	10.0	9.4	10.0	10.4
Gates	0	0	0	0	2	0.0	0.0	0.0	0.0	17.1

North Carolina 2009 HIV/STD Surveillance Report. Communicable Disease Branch.  
<http://www.epi.state.nc.us/epi/hiv/pdf/std09rpt.pdf>

## Oral Health

### Child Oral Health

The Oral Health Section of the North Carolina Division of Public Health periodically coordinates a dental assessment screening for kindergarten and fifth-grade school children. Dental hygienists use a standardized technique to measure the prevalence of decayed and filled teeth among these children. Table 47 presents the results of the 2000-2001 screenings in Gates County, in the Albemarle Region (across all the school systems), and in North Carolina.

Compared to NC county averages in 2000-2001 (Table 47):

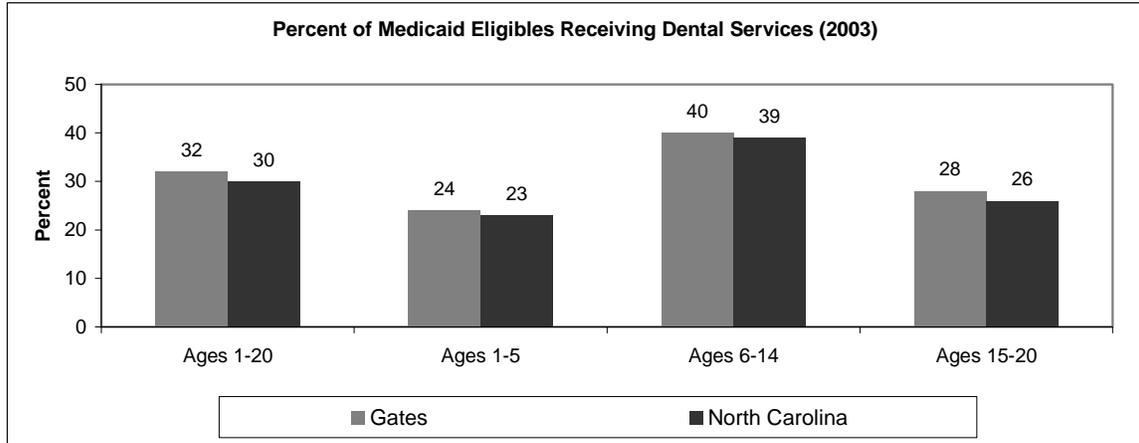
- A higher proportion of kindergarteners and fifth graders were screened in Gates County and the Albemarle region.
- Gates County kindergarteners had a higher percentage of being cavity free, a lower prevalence of untreated decay, a lower average number of decayed, missing and filled teeth per child (DMFT), and a lower average number of decayed teeth (DT) per child.
- Gates County fifth graders had a higher percentage of being cavity free, an equal prevalence of untreated decay, a lower percentage of children with sealants, a higher average number of decayed, missing and filled teeth per child (DMFT), and a lower average of decayed teeth (DT) per child.
- Albemarle kindergarteners and fifth graders had similar oral health to kindergarteners and fifth graders in Gates County with the exception of the percent of cavity free kindergarteners, the percent of kindergarteners with untreated tooth decay, and the percent of fifth graders with sealants.

**Table 47. Child Oral Health Screening Results (2000-2001)**

County	Percent Children Screened		Percent Children Cavity Free		Percent of Children w/ Untreated Tooth Decay		Percent of Children with Sealants	Average DMFT/Child		Average DT/Child	
	Kindergarten	5th Grade	Kindergarten	5th Grade	Kindergarten	5th Grade	5th Grade	Kindergarten	5th Grade	Kindergarten	5th Grade
Gates	98	90	78.9	90	13.3	4	20	0.6	1.2	0.3	0.0
NC County Avg.	86	79	63	80	23	4	37	1.4	0.4	0.7	0.1
Source	NC Child Advocacy Institute, State and County Data, 2004 Child Health Report Card. <a href="http://www.ncchild.org/2004healthreportcard.pdf">http://www.ncchild.org/2004healthreportcard.pdf</a>										

A greater percentage of Gates County Medicaid eligible youth of all ages received dental services in 2003 than in the region or the state as a whole (Figure 18).

**Figure 18**



Source: Carolina Medicare Epidemiologic Data, Medicare Population Data, <http://www.mnrc.org/NCMED/beneficiary.asp>

## Adult Oral Health

Gates County residents are surveyed about their dental health status and dental health behaviors in the state’s annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of the six-county North East Region I sample. However, the small number of 2004 participants (n=399) across the sample of which the county is a part yields data too limited to interpolate reliably to a single county, so it is not presented here.

Table 48 displays the dentists per 10,000 within Gates County and its peer counties as of 2006.

**Table 48. Dentist per 10,000 Population**

RESIDENCE		2006
North Carolina		4.4
<i>Gates</i>		N.A.
<b>PEERS</b>	Caswell	0.8
	Chowan	2.7
	Jones	1.0
	Swain	3.8

## Mental Health and Substance Abuse

Table 49 presents data on utilization of mental health, developmental disability and substance abuse services (MH/DD/SAS) by Gates County residents.

- The number of Gates County residents served by state developmental centers declined while the number served by substance abuse treatment centers increased between FY2003-2004 and FY2008-2009.
- The number of Gates County residents served in state psychiatric hospitals declined over the period cited.
- The number of people served by the local MH/DD/SAS management entity/area programs in Gates County decreased overall between 2000 and 2009.

**Table 49. Mental Health, Developmental Disability, and Substance Abuse Service Utilization**

County	Number of Persons Served								
	Developmental Centers		Alcohol and Drug Abuse Treatment Centers		State Psychiatric Hospitals		Area Programs		
	2003-2004	2008-2009	2003-2004	2008-2009	2003-2004	2008-2009	2000-2001	2003-2004	2008-2009
Gates	3	1	2	3	3	1	759	534	545
State Total	1,892	1,404	3,656	4,812	16,987	9,643	323,718	334,856	326,563
NC County Avg.	19	14	37	48	170	96	3,237	3,349	3,266

Source - NC DHHS, Division of Mental Health, Publications, Statistical Reports. <http://www.dhhs.state.nc.us/mhddsas/statspublications/reports/index.htm#statisticalrep>

While the data presented in Table 50 are out of date, they present interesting historical information on hospitalizations of Gates County residents for mental disorders and substance abuse. For the period in question (1996-1998), lower *numbers* of Gates County residents were hospitalized for either problem compared to the Albemarle Region average and the average NC county. These numbers compute to hospital utilization *rates* that were also considerably lower in the county. During the three-year aggregate period 1996-1998, 105 Gates County residents were hospitalized for mental health disorders and 109 were hospitalized for alcohol and drug abuse.

**Table 50. Hospitalizations for Mental Disorders and Substance Abuse (1996-1998)**

County	Per 10,000 Population			
	Hospitalizations for Mental Disorders		Hospitalizations for Alcohol/Drug Abuse	
	Number	Rate	Number	Rate
Gates	469	157.8	190	63.9
State Total	581,222	n/a	281,708	n/a
NC County Avg.	5,812	260.4	2,817	126.3

Source NC State Center for Health Statistics, 1999 County Health Databook

- Albemarle Hospital's Emergency Department Utilizations for Mental Health issues resulted in 444 patients seen in the ER from Oct 1, 2009 – Sept 30, 2010. The majority of patients were seen for substance abuse, alcohol related issues and suicidal ideations.

## **Obesity**

### **Adult Obesity**

Gates County residents are surveyed about their height, weight and eating behaviors in the state's annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of the six-county North East Region I sample. However, the small number of 2004 participants (n=399) across the sample of which the county is a part yields data too limited to interpolate reliably to a single county, so it is not presented here.

Adult dietary and exercise behaviors and diagnoses of overweight and obesity were assayed in the 2010 Gates County Community Health Survey, and those results are presented in Chapter Four of this report.

GP4H Eat Smart Move More Committee, along with Gates County Cooperative Extension, had a six-week program where obesity prevention was taught within churches and schools in Gates County.

GP4H has a "Holy Soles" walking program that challenges church groups to walk one mile for every chapter that is present within the Holy Bible. This walking challenge takes place between the months of May through November.

### **Childhood Obesity**

The North Carolina Healthy Weight Initiative, using the North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS), collects height and weight measurements from children seen in North Carolina Division of Public Health-sponsored WIC and Child Health Clinics, as well as some school-based health centers. This data is used to calculate Body Mass Indexes (BMI) in order to gain some insight into the prevalence of childhood obesity.

$$\text{BMI} = (\text{weight in kilograms}) / (\text{height in meters})^2$$

Children with BMIs in the 95<sup>th</sup> percentile or above are considered overweight, while children with BMIs that are between the 85<sup>th</sup> and 94<sup>th</sup> percentiles are considered "at-risk" of becoming overweight. Caution should be exercised when using these data, since the survey sample is relatively small, especially in some age groups, and may not be representative of the countywide population of children. For example, the 2008 Gates County sample was composed of 140 2-4 year-olds, 44 5-11 year-olds, and 28 12-18 year-olds (60).

According to 2008 NC-NPASS data for children who are overweight:

- Gates County has a higher proportion of 2-4 year-olds (18.6) who are overweight than the state as a whole (15.5).
- Gates County has a slightly higher proportion of 5-11 year-olds (31.8) who are overweight than the state as a whole (25.7).
- Gates County has a significantly lower proportion of 12-18 year-olds (21.4) who are overweight than the state as a whole (28.5).

According to 2008 NC-NPASS data for children who are *at risk* of becoming overweight:

- Gates County has a proportion of 2-4 year-olds (14.3) at risk lower than the state as a whole (16.4).
- Gates County has a higher proportion of 5-11 year-olds (20.5) at risk than the state as a whole (17.0).
- Gates County has a lower proportion of 12-18 year-olds (7.1) at risk than the state as a whole (17.2).

The Energized Educators = Accelerated Achievers walking challenge is a competition between the different schools within Gates County to target childhood obesity. The school system walking challenge is the largest challenge present within Gates County.

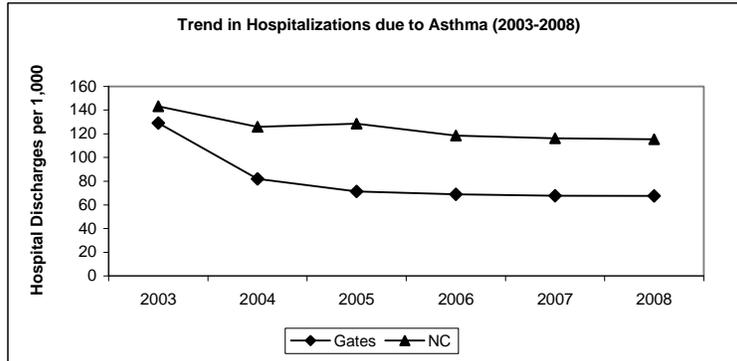
## **Asthma**

One way the burden of asthma in a community can be assessed is by reviewing hospital records. According to hospital records from 2008 that tally information about patients from Gates County regardless of the location of their hospitalization:

- The total hospitalization rate due to asthma (including children and adults) in 2008 was 41% lower in Gates County (67.6) than in the state as a whole (115.4). This current county rate is 42% lower than the Healthy Carolinians goal of 118.
- For children age 0-14, there were no reported asthma hospitalizations in Gates County in 2008. This current Gates County asthma hospitalization rate for children is thus lower than the Healthy People 2010 target of 173 (58).

Since 1997, the Gates County total hospitalization rate due to asthma has decreased overall, remaining below the rates in the region or the state as a whole throughout the period (Figure 19).

**Figure 19**



Source: North Carolina State Center for Health Statistics, County-level Data, County Health Data Books, 2006 County Health Data Book, Asthma Hospitalizations per 100,000, 2004 Discharge Reports, <http://www.schs.state.nc.us/SCHS/healthstats/databook>

In 2000, the North Carolina School Asthma Survey was performed statewide in North Carolina by a group of researchers from the School of Public Health at the University of North Carolina - Chapel Hill. The purpose of the survey was to assess the prevalence of asthmatic symptoms and risk factors in school-aged children. The survey assessed school-age children in Gates County, and according to the results of this survey (61):

- 12% of school children surveyed had been diagnosed with asthma.
- 16% of children surveyed had experienced undiagnosed wheezing.
- The total proportion of surveyed children who currently experienced wheezing was 29%
- 12% of Gates County children have missed school, 14% have limited activities, and 19% experience sleep disturbances due to asthma.

### **Resources and Programs**

Albemarle Pediatric Asthma Coalition (APAC) has played an active role in reducing the asthma epidemic in the region. They have standardized the use of the Asthma Action Plan for pre-school children and school-aged children. APAC has provided asthma education and case management services for families who have a child living with asthma. Targeted public awareness campaigns have included billboards, promotional signs and banners, pinwheel displays, and public proclamations for Asthma Awareness Month and World Asthma Day have been accomplished in the region.

## **Gates County Index/Healthy Carolinians Corner**

*(an excerpt from The Gates County Index, 2009)*

The Gates Partners for Health, (GP4H, Healthy Carolinians) along with the Albemarle Pediatric Asthma Coalition (APAC), have implemented the Air Quality Index Flag program as part of the U.S. Environmental Protection Agency urging Americans to “Be Air Aware” during Air Quality Awareness Week, beginning on April 27 – May 1, 2009. This is followed by May being recognized as Asthma Awareness Month, and World Asthma Day on May 5, 2009.

The APAC received a grant from the N.C State Asthma Program/CDC to further the education and public awareness on the disease of asthma. The GP4H Chronic Disease Awareness Committee has included this project in their committee goals and objectives.

To help increase this awareness, the APAC, in partnership with GP4H, Gates County government, Gates Cooperative Extension, Merchants Millpond and Gates County Schools, are encouraging community members to become familiar with the air quality forecasts.

The designated Air Quality Index flag will be flown on a daily basis beginning with ozone season, the last week of April and through the month of September. The Air Quality Index, (AQI) is an important tool for informing the public when the air quality is unhealthy and how every individual can protect his or her health. The primary goal of this project is to educate the residents of Gates County so they can relate the air quality and potential environmental asthma triggers. High air pollution levels can impair breathing, cause lung damage, coughing, and eye irritation as well as compromise heart conditions. Air pollution also can aggravate asthma, bronchitis, and/or emphysema.

We encourage the public to look for these flags in front of schools, parks and other public buildings. Below is the AQI color wheel and the corresponding air index readings.

The most accurate AQI data for Gates County is provided in the Hampton Roads, Virginia reading. This reading includes the air quality level taken from the Holland, Virginia station, which most closely resembles the air quality of Gates County. If you would like to access the AQI reading, it can be obtained at the following website:

<http://www.deq.virginia.gov/lists/>.

<b>AIR QUALITY INDEX</b>		
<b>Index Values</b>	<b>Descriptors</b>	<b>Cautionary Statements for Ozone</b>
0 to 50	<b>Good</b>	<b>None.</b>
51 to 100	<b>Moderate</b>	<b>Unusually sensitive people should consider limiting prolonged outdoor exertion.</b>
101 to 150	<b>Unhealthy for Sensitive Groups</b>	<b>Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.</b>
151 to 200	<b>Unhealthy</b>	<b>Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.</b>
201 to 300	<b>Very Unhealthy</b>	<b>Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.</b>

# **Chapter Four**

## **Community Health Survey & Stakeholder Interviews**

## **Primary Survey Methodology**

Interview locations were randomly selected using a modified two-stage cluster sampling methodology. The survey methodology is an adaptation of the Rapid Needs Assessment (RNA) developed by the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) for surveying populations after natural disasters. The WHO/CDC RNA approach was modified to utilize mobile GIS software, handheld computers and GPS receivers. For the Albemarle Community Health Assessment, the assessment area included seven counties and estimates needed to be reported for each county, so a stratified two-stage cluster sampling method was employed. Statistical power analysis suggested that 80 surveys per county would yield acceptable precision of estimates. Census blocks were selected as the type of geographic cluster for the first stage of the two-stage sample. To ensure sufficient households for second stage sampling, only census blocks with at least ten households were included in the sampling frame. The sample was selected utilizing a Survey Sampling Tool extension to the ESRI ArcView GIS software and developed by NC PHP&R. The sample selected included four households in each of 20 census blocks in each of seven counties, for a total of 560 surveys.

To complete data collection in the field, survey teams generally consisting of two persons: one to read the survey questions and one to enter the responses into a handheld computer. Survey teams were comprised of health department staff and volunteers recruited from each of the seven assessment counties. Survey protocol followed procedures established for RNAs and Community Health Assessments whereby surveys were conducted during work hours and early evening hours. When target households resulted in refusals or not-at-homes, survey teams proceeded on to the next household on their route and within the designated survey cluster.

A training session was provided for survey teams on March 15, 2010, and the surveys were conducted over several weeks. Survey data were analyzed using the CDC's statistical analysis software Epi-Info version 3.5.1 using the complex sample frequencies analysis procedure, which produces frequencies and means weighted based on census block population size. When appropriate, responses were stratified by the age, gender, race, education and income of the respondents. In the end, 560 surveys were analyzed.

The 2010 survey was completed on a voluntary basis, and all answers were kept confidential and would not be linked to the individual in any way. The purpose of this survey is to learn more about health and quality of life in the Albemarle Region of NC. The local health departments of ARHS, Albemarle Hospital, Bertie Memorial and Chowan Hospitals-University Health Systems, Gates Partners for Health, Healthy Carolinians of the Albemarle and Three Rivers Healthy Carolinians will use the results of this survey and other information to help develop plans for addressing the health problems of the region and its seven constituent counties: Pasquotank, Perquimans, Camden, Chowan, Currituck, Bertie, and Gates.

### PART 1: Quality of Life Statements

*The first part of this survey is about the quality of life in Gates County. After I read the statement, please tell me whether you strongly disagree, disagree, agree or strongly agree with it.*

<b>Quality of Life Statements</b>	Strongly Disagree	Disagree	Agree	Strongly Agree
<b>Question 1</b> <b>There is a good health care system in Gates County.</b> (Think about health care options, access, cost, availability, quality, etc.)	11.3%	<b><u>45.0%</u></b>	33.8%	5.0%
<b>Question 2</b> <b>Gates County is a good place to raise children.</b> (Think about the availability and quality of schools, child care, after school programs, places to play, etc.)	2.5%	12.5%	<b><u>62.5%</u></b>	20.0%
<b>Question 3</b> <b>Gates County is a good place to grow old.</b> (Think about elder-friendly housing, access/ways to get to medical services, elder day care, social support for the elderly living alone, meals on wheels, etc.)	2.5%	8.8%	<b><u>63.8%</u></b>	22.5%
<b>Question 4</b> <b>There are plenty of ways to earn a living in Gates County.</b> (Think about job options and quality of jobs, job training/higher education opportunities, etc.)	40.0%	<b><u>46.3%</u></b>	6.3%	5.0%
<b>Question 5</b> <b>Gates County is a safe place to live.</b> (Think about safety at home, in the workplace, in schools, at playgrounds, parks, shopping centers, etc.)	0%	12.5%	<b><u>66.3%</u></b>	15.0%
<b>Question 6</b> <b>There is plenty of support for individuals and families during times of stress and need in Gates County.</b> (Examples include neighbors, support groups, faith community outreach, agencies, organizations, etc.)	5.0%	36.3%	<b><u>50.0%</u></b>	3.8%
<b>Question 7</b> <b>Gates County has clean air.</b>	1.3%	11.3%	<b><u>68.8%</u></b>	12.5%
<b>Question 8</b> <b>Gates County has clean water.</b>	1.3%	16.3%	<b><u>67.5%</u></b>	10.0%

## **PART 2: Community Health, Behavioral, and Social Problems**

*The next three questions will ask your opinion about the most important health, behavioral and social problems, and community issues in Gates County.*

### **Question 9**

Using this list, please tell us the **five (5)** most important health problems in Gates County.

(Problems that you think have the greatest overall effect on health in the community.)

- 41.3%** Cancer
- 38.8%** Diabetes
- 25.0%** Heart Disease
- 10.0%** Obesity/Overweight
- 11.3%** Mental Health

### **Question 10**

Using this list, please tell us the **five (5)** most important “unhealthy behaviors” in Gates County. (Unhealthy behaviors that you think have the greatest overall effect on health and safety in the community.)

- 56.3%** Alcohol Abuse
- 47.5%** Drug Abuse
- 15.0%** Lack of exercise
- 12.5%** Unhealthy eating
- 12.5%** Unhealthy eating

### **Question 11**

Using this list, please tell us the **five (5)** most important “community social issues” in Gates County. (Social issues that you think have the greatest overall effect on the quality of life in the community.)

- 17.5%** Inadequate/unaffordable housing
- 16.3%** Lack of affordable health care/insurance
- 13.8%** Underemployment/lack of well paying jobs
- 13.8%** Lack of recreational facilities
- 7.5%** Lack of health care providers

## **PART 3: Community Service Problems and Issues**

*In the past 12 months have you needed any of these specific community services but had difficulty finding or using the service? I will name several, so if you did not need this service, tell me that and we'll skip to the next one.*

### **Question 12**

Tell me if you needed this service in the past 12 months.

**IF NO, SKIP TO NEXT SERVICE**

If YES, tell me whether you had one of the following problems with this service: (if you had no problem with this service, please tell me so)

**Adult day care/respite care**

<u>1.4%</u> Lack of information	<u>1.9%</u> Lack of transportation
<u>2.4%</u> Cost	<u>2.1%</u> No problem with this service
<u>8.7%</u> Service not available	<b><u>66.9%</u></b> Did not need this service
<u>0.7%</u> Language/Cultural barriers	

**Assistance with housing costs/subsidized housing**

<u>13.9%</u> Lack of information	<u>3.1%</u> Lack of transportation
<u>0.8%</u> Cost	<u>1.0%</u> No problem with this service
<u>0%</u> Service not available	<b><u>62.8%</u></b> Did not need this service
<u>0%</u> Language/Cultural barrier	

**Assistance with food costs/food stamps**

<u>3.7%</u> Lack of information	<u>2.4%</u> Lack of transportation
<u>0%</u> Cost	<u>5.5%</u> No problem with this service
<u>2.2%</u> Service not available	<b><u>65.6%</u></b> Did not need this service
<u>0.5%</u> Language/Cultural barrier	

**Health Promotion/Wellness programs**

<u>15.6%</u> Lack of information	<u>0%</u> Lack of transportation
<u>2.2%</u> Cost	<u>8.9%</u> No problem with this service
<u>1.4%</u> Service not available	<b><u>52.9%</u></b> Did not need this service
<u>0.5%</u> Language/Cultural barrier	

**Medical case management for an ongoing health problem**

<u>8.4%</u> Lack of information	<u>1.2%</u> Lack of transportation
<u>2.2%</u> Cost	<u>6.4%</u> No problem with this service
<u>11.9%</u> Service not available	<b><u>50.2%</u></b> Did not need this service
<u>0%</u> Language/Cultural barrier	

**Legal services**

<u>4.8%</u> Lack of information	<u>2.4%</u> Lack of transportation
<u>0.5%</u> Cost	<u>7.1%</u> No problem with this service
<u>6.6%</u> Service not available	<b><u>58.9%</u></b> Did not need this service
<u>0%</u> Language/Cultural barrier	

**Emergency medical care**

<u>2.9%</u> Lack of information	<u>4.6%</u> Lack of transportation
<u>3.8%</u> Cost	<u>6.9%</u> No problem with this service
<u>6.5%</u> Service not available	<b><u>55.9%</u></b> Did not need this service
<u>0.7%</u> Language/Cultural barrier	

**Hospital care**

<u>0%</u> Lack of information	<u>2.2%</u> Lack of transportation
<u>0.5%</u> Cost	<u>15.9%</u> No problem with this service
<u>17.7%</u> Service not available	<b><u>46.5%</u></b> Did not need this service
<u>0%</u> Language/Cultural barrier	

**Pregnancy care**

<u>5.9%</u> Lack of information	<u>0%</u> Lack of transportation
---------------------------------	----------------------------------

0% Cost  
5.2% Service not available  
0% Language/Cultural barrier

5.1% No problem with this service  
**63.4%** Did not need this service

**Enrolling in Medicaid or Medicare**

2.9% Lack of information  
1.3% Cost  
4.5% Service not available  
0% Language/Cultural barrier

0% Lack of transportation  
17.0% No problem with this service  
**55.7%** Did not need this service

**Mental health care or counseling**

5.9% Lack of information  
0% Cost  
7.0% Service not available  
0% Language/Cultural barrier

2.4% Lack of transportation  
4.9% No problem with this service  
**59.1%** Did not need this service

**Drug or alcohol treatment program**

2.9% Lack of information  
0% Cost  
12.5% Service not available  
0% Language/Cultural barrier

0% Lack of transportation  
11.5% No problem with this service  
**52.6%** Did not need this service

**Rehabilitation from an injury or permanent disability**

0% Lack of information  
0% Cost  
15.5% Service not available  
2.9% Language/Cultural barrier

0% Lack of transportation  
7.4% No problem with this service  
**55.0%** Did not need this service

**Home health care**

5.9% Lack of information  
0% Cost  
2.9% Service not available  
0% Language/Cultural barrier

4.6% Lack of transportation  
17.7% No problem with this service  
**49.7%** Did not need this service

**Nutrition service**

0.5% Lack of information  
2.4% Cost  
8.2% Service not available  
2.4% Language/Cultural barrier

0.7% Lack of transportation  
14.7% No problem with this service  
**50.2%** Did not need this service

**Purchasing medical equipment**

1.4% Lack of information  
0.5% Cost  
16.4% Service not available  
0% Language/Cultural barrier

4.8% Lack of transportation  
10.6% No problem with this service  
**47.2%** Did not need this service

**Getting prescription medications**

0.8% Lack of information  
8.4% Cost  
9.5% Service not available  
0% Language/Cultural barrier

2.9% Lack of transportation  
**37.5%** No problem with this service  
21.6% Did not need this service

**Smoking cessation**

<u>2.9%</u> Lack of information	<u>2.4%</u> Lack of transportation
<u>0%</u> Cost	<u>3.6%</u> No problem with this service
<u>5.9%</u> Service not available	<u>62.5%</u> Did not need this service
<u>2.4%</u> Language/Cultural barrier	

**Dental care**

<u>2.4%</u> Lack of information	<u>0%</u> Lack of transportation
<u>6.0%</u> Cost	<u>19.2%</u> No problem with this service
<u>25.4%</u> Service not available	<u>28.5%</u> Did not need this service
<u>0.7%</u> Language/Cultural barrier	

**PART 4: Personal Health**

*The following questions ask about your own personal health. Remember, this survey will not be linked to you in any way.*

**Question 13**

**How would you rate your own personal health?**

12.7% Excellent    17.6% Very Good    48.1% Good    16.1% Fair    2.6% Poor

**Question 14**

**Do you currently have any of the following kinds of health insurance or health care coverage? (Pick all the answers that apply.)**

28.8% Health insurance *my* employer provides  
21.3% Health insurance *my spouse's* employer provides  
2.5% Health insurance *my school* provides  
2.5% Health insurance *my parent or my parent's* employer provider  
13.8% Health insurance I bought for myself  
11.3% Medicaid  
38.8% Medicare  
2.5% Veteran's Administration benefits  
12.5% I currently do not have any kind of health insurance or health care coverage

**Question 15**

**During the past 12 months, was there any time that you did not have any health insurance or health care coverage?**

9.6% Yes    90.4% No

**Question 16**

**What type of medical provider(s) do you visit when you are sick? (Pick all the answers that apply.)**

83.3% Doctor's office    0.8% Company nurse

<u>4.4%</u> Health department	<u>4.6%</u> Community or Rural Health Center
<u>4.8%</u> Hospital clinic	<u>10.4%</u> Urgent Care Center
<u>33.9%</u> Hospital emergency room	<u>      </u> Other
<u>0%</u> Student Health Services	

### Question 17

**In what cities are the medical providers you visit located?**

*(Pick all the answers that apply.)*

<u>15.7%</u> Ahoskie	<u>6.3%</u> Franklin	<u>53.7%</u> Suffolk
<u>9.9%</u> Chesapeake	<u>19.2%</u> Gatesville	<u>3.5%</u> Virginia Beach
<u>1.4%</u> Dare County	<u>0.8%</u> Greenville	<u>0%</u> Williamston
<u>5.7%</u> Edenton	<u>0.8%</u> Hertford	<u>1.3%</u> Windsor
<u>19.0%</u> Elizabeth City	<u>11.3%</u> Norfolk	

### Question 18

**Where do you usually get advice on your health?**

*(Pick all the answers that apply.)*

<u>76.8%</u> Doctor's office	<u>5.8%</u> Urgent Care Center
<u>5.1%</u> Health department	<u>22.7%</u> Family
<u>3.0%</u> Hospital clinic	<u>22.5%</u> Friends
<u>2.9%</u> Hospital emergency room	<u>13.7%</u> Media (television, news, radio)
<u>0%</u> Student Health Services	<u>18.9%</u> Internet or other computer-based info
<u>0%</u> Company nurse	
<u>6.6%</u> Community or Rural Health Center	

### Question 19

**About how long has it been since you last visited a doctor for a routine (“well”) medical checkup? Do not include times you visited the doctor because you were sick or pregnant.**

<u>7.1%</u> Within the past 12 months
<u>15.5%</u> 1-2 years ago
<u>1.2%</u> 3-5 years ago
<u>2.9%</u> More than 5 years ago
<u>0%</u> I have never had a routine or “well” medical checkup.

### Question 20

**About how long has it been since you last visited a dentist for a routine (“well”) dental checkup? Do not include times you visited the dentist because of a toothache or other emergency.**

<u>54.5%</u> Within the past 12 months
<u>26.4%</u> 1-2 years ago
<u>5.2%</u> 3-5 years ago
<u>5.9%</u> More than 5 years ago
<u>0%</u> I have never had a routine or “well” dental checkup.

Question 21

**If one of your friends or family members needed counseling for a mental health, substance abuse, or developmental disability problem, whom would you suggest they go see?**

- 6.2% Children's Developmental Services Agency/Developmental Evaluation Center
- 24.0% Counselor or therapist in private practice
- 23.1% Doctor
- 5.1% Emergency Room
- 2.4% Employee Assistance Program
- 12.7% Local Mental Health Facility
- 11.4% Minister/pastor
- 0% School counselor
- 0.9% Vocational Rehabilitation/Independent Living
- 30.8% I don't know

Question 22

**How would you describe your day-to-day level of stress?**

- 3.4% High
- 42.2% Moderate
- 47.2% Low

Question 23

**In the past 12 months, how often would you say you were worried or stressed about having enough money to pay your rent/mortgage?**

- 5.9% Always
- 5.9% Usually
- 21.9% Sometimes
- 14.2% Rarely
- 43.7% Never

Question 24

**On how many of the past 7 days did you drink alcohol of any kind? (Beer, Wine, Spirits)**

- 0.7% 1 day
- 2.3% 2 days
- 7.6% 3 days
- 0% 4 days
- 0% 5 days
- 0% 6 days
- 0% 7 days
- 18.0% I didn't drink on any of the past 7 days
- 66.5% I never drink alcohol

Question 25

**During that same 7-day period, how many times did you have five (5) or more alcoholic drinks (Beer, Wine, Spirits) in a single day?**

- 93.5% 0 times
- 3.4% 1 time
- 0% 2 times
- 2.4% 3 times
- 0.7% 4 times
- 0% 5 times
- 0% 6 times
- 0% 7 times

### Question 26

**Do you smoke cigarettes?**

8.3% Yes

74.8% I have never smoked cigarettes

12.6% I used to smoke but have quit

### Question 27

**How many cigarettes do you smoke per day?**

*(Please check only one (1) answer.)*

91.7% Doesn't smoke

4.3% Less than half a pack per day

2.4% Between half a pack and one (1) pack per day

0.9% More than one (1) pack a day

0.7% Two (2) packs per day

0% Three (3) packs per day

### Question 28

**Are you regularly exposed to second-hand smoke from others who smoke?**

12.5% Yes

81.4% No

### Question 29

**If you answered "yes" to the question 28, where are you regularly exposed to secondhand smoke? *(Pick all answers that apply.)***

0% In restaurants

10.0% At home

3.0% At work

0% In the car

### Question 30

**How often do you currently use smokeless tobacco (chewing tobacco, snuff, Snus®, "dip")?**

19.6% None

5.7% Less than once per week

15.9% Once per week

19.5% 2-3 times per week

9.1% 4-6 times per week

23.6% Daily

### Question 31

**During the past 7 days, other than your regular job, how often did you engage in physical activity for at least a half-an-hour?**

19.7% None

5.7% Less than once a week

15.9% Once a week

19.5% 2-3 times a week

9.1% 4-6 times a week

23.6% Daily

### Question 32

**If you answered “none” to question 31, why don’t you engage in physical activity?**

6.0% My job is physical or hard labor

10.1% I don’t have enough time for physical activity

2.3% I’m too tired for physical activity

8.0% I have a health condition that limits my physical activity

0% I don’t have a place to exercise

0% Weather limits my physical activity

3.0% Physical activity costs too much (equipment, shoes, gym expense)

0% Physical activity is not important to me

### Question 33

**Not counting juice, how often do you eat fruit in an average week?**

15.0% None

50.0% 1-5 servings

28.8% 6-10 servings

5.0% 11-15 servings

1.3% More than 15 servings

### Question 34

**Not counting potatoes and salad, how often do you eat vegetables in an average week?**

10.0% None

23.8% 1-5 servings

55.0% 6-10 servings

11.3% 11-15 servings

0% More than 15 servings

### Question 35

**Are grocery stores in or near your neighborhood?**

47.4% Yes

52.6% No

### Question 36

**Are fresh fruits and vegetables readily available at nearby grocery stores?**

41.0% Yes

59% No

### Question 37

**On average, about how many meals a week do you eat out?**

40.0% None

41.3% 1-5 times  
7.5% 6-10 times  
11.3% More than 10 times

### Question 38

**Have you ever been told by a doctor, nurse, or other health professional that you have any of the following?**

12.5% Asthma  
8.2% Depression  
20.2% Diabetes  
49.8% High blood pressure  
14.3% High cholesterol  
0% Mental Illness  
34.7% Overweight/obesity

**MEN'S HEALTH QUESTIONS.** *Answer the following two questions only if you are a man age 40 or older. If you are a man, but younger than age 40, skip to question 46. If you are a woman, skip to question 41.*

### Question 39

**Do you get an annual prostate exam?**

16.5% Yes  
\_\_\_\_\_ No, why not?  
I. 0.5% Lack of Information  
II. 0% Cost  
III. 0% Service Not Available  
IV. 0.9% Language or Cultural  
V. 2.4% Lack of Transportation  
VI. 0% Instructed by a health professional that an annual prostate exam was not necessary.

### Question 40

**How long has it been since your last prostate exam?**

11.4% Within the past 12 months  
4.1% 1-2 years ago  
0% 3-5 years ago  
3.5% More than 5 years ago  
0% I don't know/don't remember  
1.8% I have never had a prostate exam

**WOMEN'S HEALTH QUESTIONS.** *Answer the following four (4) questions only if you are a woman. If you are a man, skip to question 45.*

### Question 41

**If you are age 40 or older, do you get a mammogram every 1-2 years?**

- 49.4% Yes \_\_\_\_\_ N/A because I'm under age 40 (*now skip to question 43*)  
\_\_\_\_\_ No, why not?  
I. 0.5% Lack of Information  
II. 0.7% Cost  
III. 1.2% Service Not Available  
IV. 0.5% Language or Cultural Barrier  
V. 0% Lack of Transportation  
VI. 4.5% Instructed by a health professional that a mammogram every 1-2 years was not necessary .

### Question 42

**How long has it been since your last mammogram?**

- 35.7% Within the past 12 months  
10% 1-2 years ago  
1% 3-5 years ago  
2.1% More than 5 years ago  
0% I don't know/don't remember  
2.1% I have never had a mammogram

### Question 43

**Do you get a Pap test at least every 1-3 years?**

- 49.9% Yes  
\_\_\_\_\_ No, Why?  
I. 0% Lack of Information  
II. 0.7% Cost  
III. 2.4% Service Not Available  
IV. 0% Language or Cultural Barrier  
V. 0% Lack of Transportation  
VI. 7.2% Instructed by a health professional that a pap test every 1-3 years was not necessary.

### Question 44

**How long has it been since your last Pap test?**

- 36.4% Within the past 12 months  
14.9% 1-2 years ago  
1.1% 3-5 years ago  
8.3% More than 5 years ago  
0.4% I don't know/don't remember  
1.6% I have never had a pap test

### Question 45

**FOR MEN AND WOMEN: If you are a man or woman age 50 or older, have you ever had a test or exam for colon cancer?**

- 50.6% Yes \_\_\_\_\_ No \_\_\_\_\_ N/A because I'm under age 50

### **PART 5: Adolescent (age 9-17) Behavior.**

*Answer the following three (3) questions only if you are the parent or guardian of a child aged 9-17. If you are not the parent or guardian of a child in this age range, skip to question 49.*

#### **Question 46**

**Do you think your child is engaging in any of the following high-risk behaviors?**

*(Check all answers that apply.)*

<u>1.2%</u> Alcohol	<u>0%</u> Gang violence
<u>2.4%</u> Drugs	<u>0%</u> Reckless driving/speeding
<u>0.5%</u> Sex	<u>0.9%</u> Eating disorder (e.g. anorexia or bulimia)
<u>4.2%</u> Tobacco	<b><u>14.0%</u></b> My child is not engaging in any high risk behaviors.

#### **Question 47**

**Are you comfortable talking to your child about the above behaviors?**

19.7% Yes    \_\_\_\_\_ No

#### **Question 48**

**Do you or your child need more information about any of the following issues?**

*(Check all answers that apply.)*

<u>6.5%</u> Alcohol	<u>3.0%</u> Reckless driving/speeding
<u>3.6%</u> Drugs	<u>5.2%</u> Eating disorder (e.g. anorexia or bulimia)
<u>0.9%</u> Sex	<u>3.0%</u> Mental health issues (e.g. depression)
<u>3.0%</u> Tobacco	<b><u>6.8%</u></b> Fitness/nutrition
<u>3.0%</u> STDs	_____ Other
<u>6.0%</u> HIV	<u>6.6%</u> My child does not need information.
<u>3.6%</u> Gangs	

### **PART 6: Emergency Preparedness**

*The next three questions ask about how prepared you and your household are for an emergency.*

#### **Question 49**

**Does your household have working smoke and carbon monoxide detectors?**

*(Check only one)*

<b><u>54.9%</u></b> Yes, smoke detectors only	<u>0%</u> Yes, carbon monoxide detectors only
<u>36.3%</u> Yes, both	<u>5.3%</u> No

#### **Question 50**

**Does your household have a Family Emergency Plan?**

57.2% Yes                      37.5% No

Question 51

**Does your household have a basic emergency supply kit? If yes, how many days do you have a supply for?**

49.2% No      14.1% 3 days      12.1% 1 Week      5.8% 2 weeks      3.5%  
More than 2 weeks

Question 52

**Did you get your H1N1 Flu vaccine?**

25.0% Yes, why?

8.9% Feel I am at risk, or a household member is at risk

0.8% I know someone who has been sick

16.5% My doctor recommended it

7.3% I always get the flu vaccine

65.7% No, why not?

0% I couldn't afford it

14.8% It was not available

11.7% I feel the vaccine is not safe

10.6% My physician does not recommend its use

1.6% H1N1 is not serious enough or I am not at risk

3.8% Prefer to wait and get vaccine later

5.3% The type available is not suitable for my age or medical condition

15.2% I never get vaccinated against flu

2.7% It was not convenient

**PART 7: Demographics**

*Please answer this next set of questions so we can see how different types of people feel about local health issues.*

Question 53

**Do you work or go to school outside Gates County?**      24.0% Yes      67.9% No

Question 54

**How old are you?**

7.5% 18-24

5.0% 40-44

3.8% 60-64

5.0% 25-29

10.0% 45-49

12.5% 65-69

3.8% 30-34

8.8% 50-54

10.0% 70-74

3.8% 35-39

10.0% 55-59

11.5% 75 or older

Question 55

**What is your sex?**                      28/8% Male                      62.5% Female

Question 56

**What is your race or ethnicity?**

<u>53.8%</u> African American/Black	<u>0%</u> Native American
<u>1.3%</u> Asian/Pacific Islander	<u>35.0%</u> White/Caucasian
<u>1.3%</u> Hispanic/Latino	_____ Other:

**Question 57**

**What is your marital status?**

<u>54.2%</u> Married	<u>0.5%</u> Separated	<u>15.4%</u> Never married
<u>19.3%</u> Widowed	<u>0.5%</u> Divorced	_____ Other:

**Question 58**

**What is the highest education level you have completed?**

*(Check only one (1) answer.)*

<u>14.6%</u> Less than high school
<u>30.6%</u> High school diploma or GED
<u>8.9%</u> Associate's Degree
<u>18.2%</u> Some college but no degree
<u>13.5%</u> College degree (Bachelor's degree)
<u>5.7%</u> Graduate degree (Masters or Doctoral degree)

**Question 59**

**What is your employment status?**

*(Check all answers that apply.)*

<u>20.0%</u> Employed full-time	<u>4.5%</u> Disabled; unable to work
<u>4.9%</u> Employed part-time	<u>6.9%</u> Student
<u>2.4%</u> Unemployed	<u>5.2%</u> Homemaker
<u>49.6%</u> Retired	

**Question 60**

**What was your total household income last year, before taxes? (This is the total income, before taxes, earned by all people over the age of 15 living in your house.)**

<u>17.3%</u> Less than \$20,000
<u>19.0%</u> \$20,000 to \$29,999
<u>16.4%</u> \$30,000 to \$49,999
<u>13.1%</u> \$50,000 to \$74,999
<u>8.8%</u> \$75,000 to \$100,000
<u>2.5%</u> Over \$100,000
<u>22.9%</u> No Answer

**Question 61**

**How many individuals make up your household?**

<u>12%</u> 1 person	<u>4.8%</u> 6 people
<b><u>38.6%</u></b> 2 people	<u>0%</u> 7 people
<u>14.5%</u> 3 people	<u>0.8%</u> 8 people
<u>18.4%</u> 4 people	<u>0.8%</u> 9 people
<u>4.9%</u> 5 people	

Question 62

**Are you the primary caregiver for any of the following?**

*(Check all answers that apply.)*

<u>0.7%</u> Disabled child (under age 18)	<u>0.9%</u> Foster child (under age 18)
<u>3.3%</u> Disabled adult (age 18 or older)	<u>2.4%</u> Grandchild (under age 18)
<b><u>9.9%</u></b> Senior adult (age 65 or older)	

**THE END!**

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**Thank you very much for completing the Community Health Survey!**

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## **Stakeholder Interview/Comments**

### **Methodology**

Between April and September of 2010, a UNC-Chapel Hill Masters in Public Health graduate student, as part of his/her practicum, conducted interviews with four community stakeholders in Gates County. Working from county-specific lists of names identified by the ARHSAT, the interviews were conducted via telephone. The interviewees, who were selected for participation by ARHSAT, received a letter preceding the phone calls inviting them to participate in an interview. To emphasize the importance of the invitation, the letter was signed by the local health director and the Gates Health Partners coordinator. Many more community leaders initially were contacted, but several declined participation, and several others did not respond to multiple contact attempts. A total of 4 community leaders in Gates County were interviewed

Interview subjects represented agencies in key sectors of the community such as local health and human services, business, government, education, and law enforcement. Each interview was conducted according to a script of questions that asked each interviewee to describe the services their agencies provided, how county residents heard about their services, the barriers residents faced in accessing their services, and methods used to eliminate or reduce any barriers to care that exist. Respondents also were asked to describe the county's general strengths and challenges, greatest health concerns, and possible causes and solutions for these shortcomings. Interviewees were all provided with assurance that no personally identifiable information, such as name or organizational affiliations, would be connected to their responses. A copy of the interview protocol and script appears in Appendix B.

The respondents were asked to describe the services provided by their agency, the population they served, barriers that community members faced when attempting to access those services, and what the agencies did to help their clients access their services. Respondents were also asked general opinion-type questions about Gates County as a whole. These questions were about services that were needed and about the county's strengths and challenges it was facing. At the end of the interview respondents who did not participate in the Gates County Community Health Survey were read eight statements about Gates County and asked whether they agreed or disagreed with the statements. The complete interview script appears in the Appendix of this document.

Interview data was initially recorded in narrative form in Microsoft Word. Themes in the data were identified and representative quotes were drawn from the data to illustrate the themes. Interviewees were assured that personal identifiers such as names or organizational affiliations would *not* be connected in any way to the information presented in this report. Therefore, quotes included in the report may have been altered slightly to preserve confidentiality.

## **Interview Participants**

Interviewees worked for the following types of organizations:

- Social services
- Social work
- Senior services
- Gates County Schools
- Town government

## **Interview Results**

### **Available Services**

The interview subjects worked for or volunteered with organizations that provided the following kinds of services:

- Public assistance program administration
- Outreach to senior citizens
- County government
- Health related services and activities

### **Unmet Service Needs**

When the interview subjects were asked to identify what they felt were necessary but unavailable services, they offered the following:

- **Dental services**
- **More health clinics**
- **Urgent care facilities**
- **More doctors**
- **Transportation services**

### **Client Populations Served**

The population as a whole is served by some agencies. Some health education and service activities specifically target children, youths, seniors, and Medicare/Medicaid recipients.

### **Barriers to Service Access**

Transportation was frequently cited as a barrier to service access in Gates County. There is also a lack of knowledge in the population at large about the services that are available.

## Overcoming Access Barriers

### Community Strengths

Interview subjects particularly noted the county's sense of community as its greatest strength. Gates County is also perceived as being a safe community. The military presence in the area is also seen as an asset.

*Community spirit is strong. You still find that most people leave their doors unlocked. People are looking out for each other.*

*The military brings in military families and increases jobs.*

*We have clean air and clean towns.*

*There's a small county advantage- people tend to pull together in a small rural area.*

*Gates county is clean, a good county, seems like a friendly county, and it's close to the water. Also close to the Virginia line; people come from Virginia to visit.*

### Community Challenges

The interviewees expressed concern that there are few employment opportunities and a lack of industry in Gates County. The recent recession has had a negative impact on the county's economy.

*The lack of preventive dentistry is a problem.*

*When the military people are out, a lot of businesses don't have much business.*

*Health system locations are not convenient.*

*There were economic concerns even before the economy went sour recently. There's a lack of business development. It's a small rural area with not even a McDonald's in the county. It's a bedroom community- not much job opportunity.*

## Community Health Problems

Access to health-care was a major health concern for this group of interview subjects. High blood pressure, cardiovascular disease, obesity and diabetes were noted as common health problems. There is a substantial senior population with age-related ailments. Cancer is common. Transportation to medical services is difficult for some people.

*Teen pregnancy is something of an issue, but not too major.*

*Gates has an older population- people have chronic conditions and so forth, like diabetes and hypertension.*

*There's limited funding for health care. The education level of people in the county also causes problems.*

## Solving Community Health Problems

When asked what the community could do to solve its health problems the interviewees suggested increasing preventive care programs and efforts to educate the community about health problems. They also recommended improving access to health services and doing a better job about getting health information out to the community. Increased funding was also a need.

*The county has a lack of health promotion. Individuals need to get in the habit of routinely seeing a provider.*

*People need to get educated about the implications of obesity, high blood pressure, diabetes, smarter food choices. There are cultural issues- people eat poorly chosen food at home. We need to be educating people about healthy food choices.*

*We need more funding and more programs to assist the elderly with medications and medical care.*

*Collaboration is the key. When groups work together, we don't have to be territorial and can work together.*

## Quality of Life

Four respondents replied to the Quality of Life questions.

### **1) There is a good health care system in Gates County.**

Two respondents agreed with this statement and two disagreed.

### **2) Gates County is a good place to raise children.**

Four respondents agreed with this statement.

**3) Gates County is a good place to grow old.**

Four respondents agreed with this statement.

**4) There are plenty of ways to earn a living in Gates County.**

Four respondents disagreed with this statement.

**5) Gates County is a safe place to live.**

Four respondents agreed with this statement.

**6) There is plenty of support for individuals and families during times of stress and need in Gates County.**

Two respondents agreed with this statement and two disagreed.

**7) Gates County has clean air.**

All four respondents agreed with this statement.

**8) Gates County has clean water.**

All four respondents agreed with this statement.

# **Chapter Five**

## **Acting on Community Health Assessment Results**

# Chapter Five

## Acting on CHA Results

### Gates Partners for Health Community Health Assessment and Priorities Selection

On Friday, October 29, 2010 Gates Partners for Health met with community leaders to review community assessment data and identify the leading community health problems for future focus. Present at the meeting was representation from:

- Cooperative Extension
- County Commissioners
- Sheriff's Department
- Public School System
- Senior Citizens
- Faith Community
- Medical Center
- ViQuest
- Emergency Management
- GP4H

During the meeting, health assessment data, both at state and local levels, along with the survey data were reviewed. A list of strengths and weaknesses developed from a data analysis team was distributed to the work group for review.

The community assessment survey data was composed from eighty randomly selected households. A scale of one to four was utilized to weight concerns. Community strengths included good place to grow old, good place to raise children and a safe place to live. Community weaknesses included the drop-out rate, low SAT scores, economic depression, lack of health care providers, substandard housing, lack of recreational activities, 65% leave county for work, latch key children, inadequate marketing, lack of dental and mental health services and the lack of services for the increasing senior population.

### **Health Priorities**

Leading causes of Death (State Data):

1. Cancer (#1)- .9% higher than state level
2. Heart Disease- 1% higher than state level
3. Diabetes - 30% higher than state level
4. Stroke - .9% higher than state level

Five most important health problems in Gates County (Community Opinion)

1. Cancer
2. Diabetes
3. Heart Disease
4. Obesity
5. Mental Health

Five most important community social issues:

1. Housing
2. Health care/insurance
3. Underemployment
4. Recreation
5. Health care providers

Problems identified from the work group as priorities for Gates County include:

1. Respiratory Issues including asthma, COPD and Emphysema
2. Obesity
3. Unhealthy food choices
4. Prevention/ early outreach
5. Recreation activities
6. Unhealthy pregnancies leading to unhealthy babies
7. Health education
8. Community organizer (parks and recreation person)
9. Inter-county relationships
10. Substandard housing
11. Media coverage/marketing
12. College prep seminars/ goal setting
13. Leadership
14. Early screening availability and finances to support
15. Dental care

## **Next Steps**

**From the list of 15, the group identified four top problems. Listed in priority order are the focus areas identified by the group:**

- 1. Obesity**
- 2. Respiratory problems**
- 3. Jobs/Industry/ Economic issues**
- 4. Prevention/Early Detection**

## **Dissemination Plan**

With four community problems identified, the magnitude, consequences, and feasibility of each was reviewed. Gates Partners for Health will continue their ongoing work in improving the health and wellness of Gates County citizens with a focus on the health related priorities:

- 1. Obesity**
- 2. Respiratory problems**
- 3. Prevention/Early Detection**

Gates Partners for Health will partner with local government, agencies, organizations and businesses to address the economic issues that will impact the quality of life.

# **Chapter Six**

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# **Chapter Seven**

## **Appendices**

# Appendix A

## Gates County Health Services Inventory

### Adult Care

#### **Down East Health & Rehabilitation Center**

38 Caters Rd  
Gatesville, NC 27938  
252-357-2124

### Clinics

#### **Gates County Medical Center**

501 Main Street  
Gatesville, NC 27938  
252-357-1226

### Cooperative Extension

#### **Gates County Cooperative Extension**

112 Court Street  
Gatesville, NC 27938  
252-357-2411  
FAX 252-357-1167

Making healthy choices isn't always easy. North Carolina Cooperative Extension's educators help people sort fact from fad, providing research-based programs that promote a lifetime of good health.

### Dental Care

Dianna Hall, RDH  
Public Health Dental Hygienist  
270 Tuggie Eure Rd.  
Gates, NC 27935  
252-357-1077

Provides oral health assessments, education and referrals for targeted school age children in Chowan, Camden, Currituck, Pasquotank, and Perquimans. Also provides oral health education services upon request for all age groups.

#### **Gates County Dental Clinic**

Medical Center Rd  
Gatesville, NC 27938  
252-357-1132

## **Health Department**

### **Albemarle Regional Health Services**

29 Medical Center Rd

Gates, NC 27937

252-357-1380

FAX 252-357-2251

Albemarle Regional Health Services is the seven-county regional Public Health agency that serves 132,978 residents in rural, northeastern North Carolina. For over 69 years, the communities of the Albemarle region have been the recipients of quality Public Health services. The Public Health professionals and programs of Albemarle Regional Health Services are dedicated to disease prevention and the promotion of a healthy environment to reduce morbidity, mortality, and disability through quality service, education, and advocacy. Funding for Health Department programs come from the County, State, Federal and special grants. Foreign language assistance is available for individuals who do not speak English. Below is a general list of programs and services:

### **Clinical Services**

- ◆ **Adult Health Clinic-** Comprehensive physical assessments and clinical services are provided for all adults in an effort to detect and prevent chronic diseases, which may cause disability or premature mortality.
- ◆ **Child Health Clinic-** Primary child health services are provided in an effort to detect problems so appropriate interventions can begin as early as possible.
- ◆ **Immunizations-** Immunizations are provided to children and adults in an effort to prevent communicable diseases such as polio, pertussis, tetanus, mumps, measles, rubella, diphtheria, and hepatitis. Adult immunizations include the annual influenza and pneumonia campaign, in addition to all recommended adult immunizations.
- ◆ **Communicable Disease Program-**
- ◆ **Family Planning-** helps women and men maintain optimal reproductive health and assists families in determining the number, timing, and spacing of their children.
- ◆ **Maternal Health-** Maternal Health Care services are provided in an effort to reduce infant mortality and ensure all pregnant women receive the highest level of health care. High Risk Perinatal Clinic was established to improve the pregnancy outcomes of women with pregnancy complications.
- ◆ **Breast and Cervical Cancer Control Program (BCCCP)-** provides access to screening services for financially and medically eligible women.

### **Additional Programs**

- ◆ **WIC Women Infant and Children Program-** Nutritional support program for infants, children and pregnant, postpartum and breastfeeding women.
- ◆ **Sexually Transmitted Diseases Clinic-** STD and HIV diagnosis, treatment, and counseling are available on a walk-in-basis. There are no fees associated with STD services.
- ◆ **Public Health Preparedness and Response-** work is focused on the communities in order to keep the public safe and prepared for any disaster. This is achieved by

coordinating with local emergency management partners, response agencies, and medical partners. ARHS focuses specifically on Public Health related disaster and emergency events, including but not limited to, pandemics, disease outbreaks, bioterrorism, and natural disasters.

- ◆ Albemarle Regional Diabetes Care Program- offers Individualized counseling, follow-up nutrition education, and disease management are integral components.
- ◆ Interpretive Assistance- Interpretive services are available to ARHS clients to enhance communication during direct service delivery.

### **Environmental Health**

Albemarle Environmental Management Systems affords the community services to ensure health and safety while reducing the spread of communicable diseases.

- ◆ Sewage inspection
- ◆ Swimming Pool Inspection
- ◆ Communicable Disease Investigation
- ◆ Food & Lodging Inspection
- ◆ Management Entity
- ◆ Lead Investigation

### **Home Health & Hospice**

#### **Albemarle Home Care**

311 Cedar Street  
Elizabeth City, NC 27909  
252-338-4066  
FAX 252-338-4069  
Toll Free 1-800-478-0477

### **Hospitals**

#### **Chowan Hospital**

Virginia Road  
PO Box 629  
Edenton, NC 27932  
252-482-6268

#### **Sentara Obici Hospital**

2800 Godwin Boulevard  
Suffolk, VA 23434  
757-934-4000

#### **Albemarle Hospital**

1114 N. Road St  
Elizabeth City, NC 27909  
252-338-4665

**South Hampton Memorial**  
100 Fairview Drive  
Franklin , VA 23851

**Roanoke Chowan Hospital**  
500 South Academy Street  
Ahoskie , NC 27910

## **Mental Health**

### **Alcohol Anonymous**

Meets Tuesday evenings at 8 p.m. at  
Saint Peter's Episcopal Church, NC  
Highway 32 Sunbury, NC

### **Mobile Crisis Team**

Integrated Family Services PLLC  
1-866-437-1821

24 hours a day/ 7 days a week

[www.integratedfamilyservices.net](http://www.integratedfamilyservices.net)

The Mobile Crisis Team helps people in crisis who have: Mental Health Issues, Developmental Disabilities, and Substance Abuse Issues

### **Port Human Services**

305 East Main Street  
Elizabeth City, NC 27909  
252-335-0803  
FAX 252-413-0932  
Crisis Hotline: 866-488-PORT (7678)

[www.porthumanservices.org](http://www.porthumanservices.org)

Port Human Services is a private, non-profit organization that provides a full continuum of substance abuse and mental health services to the citizens of Eastern North Carolina.

## **Pharmacies**

### **Todd's Pharmacy**

504 Main Street  
Gatesville, NC 27938  
252-357-1800

## **Support Services**

*~Food Pantries~*

### **Ballard's Grove Soup Kitchen**

750 NC Hwy 137  
Eure, NC 27935  
252-357-1918

**Gates Emergency Ministries (GEM)**

252 NC Highway 37 N  
Gates, NC  
252-357-6599

**The Bread Basket**

Upper Room Assembly  
807 Main St  
Gatesville, NC 27938  
252-357-5300

*~Housing Assistance~*

**Economic Improvement Council (Main Office)**

P.O Box 549  
Edenton, NC 27932  
252-482-4459  
**Gates County call: 252-335-5493**

*~In Case of Crisis~*

**Salvation Army**

602 N. Hughes Blvd  
Elizabeth City, NC 27909  
252-338-4129

**The American Red Cross**

905 Halstead Blvd.  
Elizabeth City, NC  
252-338-2185

*~Social Services~*

**Gates County Department of Social Services**

200 Court St  
Gatesville, NC 27938  
252-357-0075

# **Appendix B**

## **Community Stakeholder Interview Protocol**

### **Community Leader Telephone Interviews**

#### ***Gates County***

#### **Pre-Interview Phase**

##### ***Introductory Phone Call***

Say: “Hello, my name is \_\_\_\_\_ and I’m working for the UNC School of Public Health on a health assessment project with the local health departments of Albemarle Regional Health Services and their community health partners throughout the region. The goals of the project are to learn more about health and quality of life – and to identify the special strengths and challenges – in each county of the region.

We have just completed a broad community survey and currently are in the process of interviewing people like you who lead organizations that serve the needs of people in each county. A short time ago you should have received a letter from the Gates County sponsors of this project inviting you to participate in one of these interviews. I hope you have had a chance to read the letter and think about how you can help the community by participating. Would you be willing to participate in an interview?”

***[NOTE: At this point the subject may want more information about the interview. You may tell the subject that the interview will take approximately a half-hour to complete and will include questions about what his or her agency or organization does and who it serves, as well as opinion-type questions about the strengths and challenges of healthcare and other resources in the community.]***

If their answer is **NO**: thank them for their time and tell them that the final results of the project will be made available to the public around the end of the year. [Of course if your invitation is by email, you will not wait for a yes or no answer; you will assume the answer will be “YES” and move on in your message as in the following paragraph.]

If their answer is **YES**: assure them that the interview will take place at their convenience. They may suggest using the present time; if not, ask on what date and at what time it would be convenient to call them back for the interview. If to this point the subject has not

asked for more information about the activity, please now provide the information from the **NOTE** above. Be sure to get correct phone information (i.e., do not assume that the number on the roster is the number they will want to use for the interview) and try to accommodate their timing needs. This *may* require you to call them back in the evening or on a weekend.

If they offer you choices or other kinds of flexibility, you may then schedule the call to your convenience. Thank them for agreeing to participate and tell them you look forward to talking with them on: [repeat the day/time of the interview].

### ***Introductory Email***

Write: "Dear [proper name/title of prospective participant],

My name is \_\_\_\_\_ and I'm working for the UNC School of Public Health on a health assessment project with the local health departments of Albemarle Regional Health Services and their community health partners throughout the region. The goals of the project are to learn more about health and quality of life – and to identify the special strengths and challenges – in each county of the region.

We have just completed a broad community survey and currently are in the process of interviewing people like you who lead organizations that serve the needs of people in each county. A short time ago you should have received a letter from the Gates County sponsors of this project inviting you to participate in one of these interviews. I hope you have had a chance to read the letter and have decided to participate.

The interview will take approximately a half-hour to complete and will include questions about what your agency or organization does and who it serves, as well as personal opinion-type questions about the strengths of and challenges to health and healthcare in Gates County.

I want to be sure that the interview can take place on a day and at a time that is convenient for you. Will you please reply to this message with a brief note suggesting some days -- and times on those days -- when it would be convenient for me to call you for the interview? Please also provide the phone number you would like me to use for the call. [It is permissible for the interviewer to suggest some possible time slots in the name of efficiency, but the suggestion should be in the form of a question (e.g., "Would it be convenient for me to call you on.....", rather than "I'd like to call you on.....)].

If you would like additional information, please feel free to contact me at the address above.

Thank you sincerely for your participation in this project. Your input will be very helpful in the effort to identify health issues, services and service gaps in Gates County. I look forward to hearing from you!

[Sign name]

**Interview Phase: Call Protocol; Interview Guide**

Say: "Hello, my name is \_\_\_\_\_ and we spoke [or exchanged email messages] a short time ago about your participation in a telephone interview about health and quality of life in Gates County. This is the time you suggested that I call to conduct that interview. Is this still a convenient time for you?"

If the answer is **NO**, apologize for the inconvenience and ask them to suggest a day and time to which to reschedule the interview. It is possible that the subject may have changed his/her mind about participating. If the subject declines to reschedule, thank them for their time and tell them that, should they be interested, the results of the project will be made public around the end of the year.

If the answer is **YES**, say:

"Thank you again for agreeing to participate in this interview. Our conversation will take approximately 30 minutes to complete, but I don't want you to feel rushed. Please feel free to take as much time as you need it to say what you want to say."

"What we discuss will be kept confidential. Nothing you say will have your name or organization attached, and the responses we gather in interviews will be combined and then summarized. It is possible that we may use some quotes from the interviews, but they will be modified as necessary so that neither the person who said them nor his/her organization can be identified."

"Are you ready? Let's begin."

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**A. The first questions are about your agency or organization and its clients:**

- 1) What services does your agency provide for county residents?
- 2) Please describe county residents who *currently* are most likely to use your services (age, gender, race, income level, etc.).
- 3) In the *past 5 years* have there been any *changes* in the composition of the people who use your services? If yes, please describe.
- 4) What do you think are the barriers residents encounter in accessing your services?
- 5) What does your agency do to try to meet the special needs of people who use your services (e.g., language/cultural issues, cost, transportation, etc.)?
- 6) Is there anything else you'd like to tell me about your organization?

**B. The following open-ended questions also relate to Gates County as a whole.**

- 1) What services/programs are needed now that are not currently available?
- 2) Overall, what would you consider to be Gates County's greatest strengths?
- 3) What do you feel are the major challenges Gates County is facing?
- 4) Looking *specifically at health*: what do you think are the most important health problems/health concerns in Gates County?
- 5) What factors do you believe are causing these health problems or concerns?
- 6) What do you think could be done to solve or overcome these health problems or concerns?

**C. Did you participate in the recent Gates County Community Health Survey?**

***NOTE to interviewer: If NO, please ask subject to answer the following questions (Section D) which were on the survey; if YES, conclude with the last question (Section E):***

**D. The next questions are about Gates County as a whole. Please tell me if you *agree or disagree* with the following statements about Gates County [prompt for details, especially for very strong positive or negative responses]:**

- 1) There is a good health care system in Gates County.
- 2) Gates County is a good place to raise children.
- 3) Gates County is a good place to grow old.
- 4) There are plenty of ways to earn a living in Gates County.
- 5) Gates County is a safe place to live.
- 6) There is plenty of support for individuals and families during times of stress and need in Gates County.
- 7) Gates County has clean air.
- 8) Gates County has clean water.

**E. That concludes the formal interview. Are there any other thoughts you'd like to share?**

**Thank you for your time!**