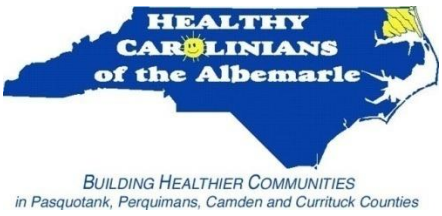
Albemarle Regional Health Services and
Albemarle Health

2013 Gates County Community Health Assessment

May, 2013



Community Health Assessment funding provided by:

Albemarle Regional Health Services

Albemarle Health

The Outer Banks Hospital

Vidant Bertie Hospital

Vidant Chowan Hospital

May 2013

Dear Community Member,

Thank you for taking the time to review the 2013 Community Health Assessment for our area. Albemarle Regional Health Services and Albemarle Health are proud to partner and provide this comprehensive report which illustrates the health status, health needs and improvements, as well as health resources in our community. This document represents months of diligent work by health department staff, hospital staff, and community members like you.

We have continued to work together throughout the past several years to develop and implement strategies to target needs identified in the **2010** CHA process. These efforts have resulted in more positive health outcomes in our communities and we are pleased to include areas of improvement in this report.

Moving forward, we will use this report to guide us in developing and implementing strategies and engaging partners to address the current needs identified in the 2013 process.

We would like to thank each person, organization, and agency that has helped with this process. The health of a community starts with you.

Best of health,

Jerry L. Parks, MPH
Health Director
Albemarle Regional Health Services

Wick Baker
President
Albemarle Health

ACKNOWLEDGMENTS

The Community Health Assessment (CHA) process requires much work and dedication from those who are committed to identifying and solving health problems within our communities to improve the quality of life for our residents. The first phase of this process is forming a CHA Leadership Team. It is essential that the CHA Team involve people who have significant influence in the county, as well as the people who are most affected by health problems. People from throughout the county must be mobilized during this process, therefore a broad representation of county residents, agencies, and organizations were invited to be a part of this team.

Orientation Meeting, June 22, 2012
Pasquotank County Health Department, Elizabeth City

Attendance:

1. Lisa Spry, Albemarle Regional Health Services, Health Educator
2. Ashley Mercer, Albemarle Regional Health Services, Health Educator
3. Amanda Betts, Albemarle Regional Health Services, Healthy Carolinians of the Albemarle Coordinator
4. Robin Harris, College of the Albemarle, Division Chair - Health Sciences and Wellness Programs
5. Megan Booth-Mills, Vidant Bertie Hospital and Vidant Chowan Hospital, Director of Planning & Marketing
6. Toby Chappell, Gates County Manger
7. Frank Heath, Perquimans County Manager
8. Jill Jordan, Albemarle Regional Health Services, Health Education Director and Public Information Officer
9. Christine Ransdell, Albemarle Regional Health Services, Regional Coordinator for NC Heart Disease & Stroke Prevention Program
10. Wesley Nixon, Albemarle Regional Health Services, Environmental Health Specialist
11. Juanita Johnson, Albemarle Health, Case Manager for Community Care Clinic
12. Leah Mayo, Albemarle Regional Health Services, Community Transformation Grant Project
13. Kim Ruiz, Albemarle Regional Health Services, Community Transformation Grant Project
14. Yvonne Mullen, Pasquotank Cooperative Extension Agent, Family and Consumer Sciences
15. Amy Underhill, Albemarle Regional Health Services, Health Promotion Coordinator and Healthy Carolinians of the Albemarle Chair
16. Fannie Parker, Bertie County EMPOWER! Diabetes Program
17. Joanna Rascoe
18. Dana Hamill, Albemarle Regional Health Services, Lead Regional CHA Coordinator and Health Educator
19. Arina Boldt, Albemarle Health, Manager of Healthy Communities
20. Pam Etheridge, Albemarle Health, Community Health Nurse
21. Bonnie Brown, Albemarle Health, Health Promotion Coordinator

Primary Data Collection Plan Meeting, August 31, 2012
Pasquotank County Health Department, Elizabeth City

Attendance:

1. Dana Hamill, Albemarle Regional Health Services, Lead Regional CHA Coordinator and Health Educator
2. Donna Godfrey, Perquimans County, Planning and Zoning
3. Lisa Spry, Albemarle Regional Health Services, Health Educator
4. Brigit Schultz, College of the Albemarle, Nursing Student
5. Fannie Parker, Bertie County EMPOWER! Diabetes Program
6. Robin Harris, College of the Albemarle, Division Chair - Health Sciences and Wellness Programs
7. Kim Ruiz, Albemarle Regional Health Services, Community Transformation Grant Project
8. Shirley Taylor, Bertie County EMPOWER! Diabetes Program
9. Wes Gray, Albemarle Regional Health Services, Community Transformation Grant Project
10. Megan Booth-Mills, Vidant Bertie Hospital & Vidant Chowan Hospital, Director of Planning & Marketing
11. Beverly Venters, Vidant Chowan Hospital, Nurse
12. Amanda Betts, Albemarle Regional Health Services, Healthy Carolinians of the Albemarle Coordinator
13. Yvonne Mullen, Pasquotank Cooperative Extension Agent, Family and Consumer Sciences
14. Tanya Miller, Albemarle Health, Stroke Program Coordinator
15. Amy Underhill, Albemarle Regional Health Services, Health Promotions Coordinator and Healthy Carolinians of the Albemarle Chair
16. Dana Boslau, Albemarle Regional Health Services, Director of Nursing
17. Nancy Morgan, Albemarle Regional Health Services, Three Rivers Healthy Carolinians Coordinator
18. Jill Jordan, Albemarle Regional Health Services, Health Education Director and Public Information Officer
19. Ashley Stoop, Albemarle Regional Health Services, Preparedness Coordinator
20. Sylvia Boone, Albemarle Health, Case Manager for Community Care Clinic
21. Juanita Johnson, Albemarle Health, Case Manager for Community Care Clinic
22. Bonnie Brown, Albemarle Health, Health Promotion Coordinator
23. Arina Boldt, Albemarle Health, Manager of Healthy Communities
24. Pam Etheridge, Albemarle Health, Community Health Nurse
25. Christine Ransdell, Albemarle Regional Health Services, Regional Coordinator for NC Heart Disease & Stroke Prevention Program
26. Amy Montgomery, The Outer Banks Hospital, Director, Community Outreach (via conference call)
27. Wesley Nixon, Albemarle Regional Health Services, Environmental Health Specialist

Primary Data Collection Plan Meeting, October 5, 2012
Pasquotank County Health Department, Elizabeth City

Attendance:

1. Yvonne Mullen, Pasquotank Cooperative Extension Agent, Family and Consumer Sciences
2. Esther Lassiter, Albemarle Regional Health Services, Gates Partners for Health Coordinator
3. Dana Hamill, Albemarle Regional Health Services, Lead Regional CHA Coordinator and Health Educator
4. Arina Boldt, Albemarle Health, Manager of Healthy Communities

5. Crystal Terry, Elizabeth City State University, Adjunct Professor in the Department of Health and Physical Education
6. Brent Jones, Bertie Recreation Department, Recreation Program Coordinator
7. Megan Booth-Mills, Vidant Bertie Hospital and Vidant Chowan Hospital, Director of Planning & Marketing
8. Nancy Morgan, Albemarle Regional Health Services, Three Rivers Healthy Carolinians Coordinator
9. Ashley Stoop, Albemarle Regional Health Services, Preparedness Coordinator
10. Tanya Miller, Albemarle Health, Stroke Program Coordinator
11. Wesley Nixon, Albemarle Regional Health Services, Environmental Health Specialist

Pasquotank County Community Health Opinion Survey Training, October 16, 2012
Owens Center, College of the Albemarle, Elizabeth City
Matt Simon

In Attendance:

1. Wendy Ward, College of the Albemarle, Student
2. Oksana Karitskaya, College of the Albemarle, Student
3. Amanda Easley, College of the Albemarle, Student
4. Patricia Mountjay, College of the Albemarle, Student
5. Yvonne Mullen, Pasquotank Cooperative Extension Agent, Family and Consumer Sciences
6. Lindy Cartwright, College of the Albemarle, Student
7. Heather Lawrence, East Carolina University, Graduate Student
8. Gayle Olson, Albemarle Regional Health Services, Asthma Nurse
9. Wes Gray, Albemarle Regional Health Services, Community Transformation Grant Project
10. Amy Underhill, Albemarle Regional Health Services, Health Promotion Coordinator and Healthy Carolinians of the Albemarle Chair
11. Ashley Mercer, Albemarle Regional Health Services, Health Educator
12. LaDonna Maddy, East Carolina University, Graduate Student
13. Jeremy Whitaker, Albemarle Health, Administrative Resident
14. Ashley Stoop, Albemarle Regional Health Services, Preparedness Coordinator
15. Juanita Johnson, Albemarle Health, Case Manager for Community Care Clinic
16. Timothy Brown, Albemarle Regional Health Services, Teen Tobacco
17. Robin Harris, College of the Albemarle, Division Chair - Health Sciences and Wellness Programs
18. Amanda Betts, Albemarle Regional Health Services, Healthy Carolinians of the Albemarle Coordinator
19. Meredith Umphlett, Albemarle Regional Health Services, AgriSafe Nurse
20. Leslie Walters, College of the Albemarle
21. Monica Hassell, College of the Albemarle, Nursing Student
22. Alexis Edwards, College of the Albemarle, Nursing Student
23. Julie White, College of the Albemarle, Nursing Student
24. Amanda Jenkins, College of the Albemarle, Nursing Student
25. Sharon Brookins, College of the Albemarle, Nursing Student
26. Liz Watson, University of North Carolina, Graduate Student
27. Shenika Outlaw
28. Holly Cook-Ward, Elizabeth City YMCA
29. Ginger Badgley, College of the Albemarle
30. Taylor Collins, College of the Albemarle
31. Pablo Trevino, College of the Albemarle

32. Wendy Pierce, Albemarle Health, Director of Grants Management and Special Projects
33. Kelli Scott, Albemarle Health, Nurse Manager – 2South
34. Tamara Pace, College of the Albemarle, Nursing Student
35. Brigit Schultz, College of the Albemarle, Nursing Student
36. Sara Van Horn, College of the Albemarle, Medical Assisting Student
37. Alex Bundy, College of the Albemarle, Nursing Student
38. Vanessa Nixon, College of the Albemarle, Nursing Student
39. Andrea Fulcher, College of the Albemarle, Nursing Student
40. Rebecca Trueblood, College of the Albemarle, Nursing Student
41. Tammy Wood, College of the Albemarle, Nursing Student
42. Shelly Williams, College of the Albemarle, Nursing Student
43. Lisa Bunch, College of the Albemarle, Nursing Student
44. Lynn Mathis, North Carolina Department of Environment and Natural Resources, Division of Coastal Management Environmental Specialist (CAMA)
45. Nancy Stevens, College of the Albemarle, Nursing Student
46. Melissa Rawlins, College of the Albemarle, Nursing Student
47. Kimberly Ruiz, Albemarle Regional Health Services, Community Transformation Grant Project
48. Chris Odom, Albemarle Health, Clinical Engineer Supervisor
49. Tanya Miller, Albemarle Health, Stroke Program Coordinator
50. Lisa Spry, Albemarle Regional Health Services, Health Educator
51. Steve Fecker, College of the Albemarle
52. Brenda Tevepaugh, College of the Albemarle, Nursing Student
53. Dana Hamill, Albemarle Regional Health Services, Lead Regional CHA Coordinator and Health Educator
54. Jill Jordan, Albemarle Regional Health Services, Health Education Director and Public Information Officer

Special thank you to Robin Harris, College of the Albemarle, Division Chair - Health Sciences and Wellness Programs for securing the meeting location, videoing the initial training, and recruiting students to volunteer to conduct surveys. A big thank you to the College of the Albemarle student volunteers that helped with this process!

October 16, 2012 - Pasquotank Survey Volunteers:

-Vanessa Nixon/Andrea Fulcher
-Wes Gray/Meredith Umphlett
-Jill Jordan/Liz Watson
-Tim Brown/Kimberly Ruiz
-Ashley Mercer/Amanda Easley
-Sharon Brookins/Brigit Schultz
-Amy Underhill/Lindy Cartwright
-Julie White/Amanda Jenkins
-Tamara Pace/Sara Van Horn
-Lisa Spry
-Holly Cook-Ward/Alex Bundy
-Yvonne Mullen/Nancy Stevens
-Patricia Mountjoy/Alexis Edwards
Base Coverage - Dana Hamill, Wesley Nixon, Ashley Stoop

October 17, 2012 - Pasquotank Survey Volunteers:
-Liz Watson/Yvonne Mullen
-Wendy Pierce/Kelli Scott
-Gayle Olson/Meredith Umphlett
-Santina Proctor/Juanita Johnson
-Wes Gray
Base Coverage - Amy Underhill, Dana Hamill

October 18, 2012 - Pasquotank Survey Volunteers:
-Yvonne Mullen/Liz Watson
-Ashley Mercer/Tanya Miller
-Amy Underhill/Wes Gray
Base Coverage - Dana Hamill, Amy Under hill, Wesley Nixon

October 19, 2012 - Perquimans Survey Volunteers:
-Wendy Pierce/Kelli Scott
-Ashley Mercer/Amy Underhill
-Lisa Spry/Tim Brown
-Lisa Spry/Dana Hamill
Base Coverage - Dana Hamill, Ashley Stoop

October 20, 2012 - Perquimans Survey Volunteers:
-Robin Harris/Lynn Mathis
Base Coverage - Jill Jordan, Ashley Stoop, Dana Hamill

October 22, 2012 - Camden Survey Volunteers:
-Ashley Mercer/Tim Brown
-Wes Gray/Meredith Umphlett
-Ashley Mercer/Yvonne Mullen
Base Coverage – Dana Hamill

October 23, 2012 - Camden Survey Volunteers:
-Meredith Umphlett/Heather Lawrence
Base Coverage – Amy Underhill, Lisa Spry

October 24, 2012 - Camden Survey Volunteers:
-Taylor Collins/Rebecca Trueblood
-Ashley Mercer/Tim Brown
-Tanya Miller/Heather Lawrence
-Wes Gray/Meredith Umphlett
-Yvonne Mullen/Tim Brown
Base Coverage – Dana Hamill, Wesley Nixon, Ashley Stoop

October 26, 2012 - Pasquotank Survey Volunteers (Catch-up Day):
-Amy Underhill/Ashley Stoop

November 3, 2012 - Perquimans Survey Volunteers (Catch-up Day):
-Dana Hamill/Lisa Spry

November 6, 2012 - Camden Survey Volunteers (Catch-up Day):
-Amy Underhill/Lisa Spry

November 8, 2012 - Camden Survey Volunteers (Catch-up Day):
-Amy Underhill/Gayle Olson

December 5, 2012 - Camden Survey Volunteers (Catch-up Day):
-Amy Underhill/Amanda Betts
Yvonne Mullen/Cierra
-Yvonne Mullen/Danielle Barco

December 6, 2012 - Camden Survey Volunteers (Catch-up Day):
-Yvonne Mullen/Danielle Barco
-Amy Underhill/Ashley Stoop

December 6, 2012 - Perquimans Survey Volunteers (Catch-up Day):
-Ashley Mercer/ Wes Gray

December 7, 2012 - Camden Survey Volunteers (Catch-up Day):
-Wes Gray/Leah Mayo

December 7, 2012 - Perquimans Survey Volunteers (Catch-up Day):
-Lisa Spry/Meredith Umphlett

Currituck County Community Health Opinion Survey Training, November 1, 2012
Currituck County Health Department
Video of Initial Training conducted by Matt Simon

In Attendance:
None

Currituck County Survey Volunteers:
Nov 1 - Wes Gray and Amy Underhill
Nov 2 - Amanda Betts and Yvonne Mullen
-Olivia Jones and Barbara Courtney
-Lisa Spry and Amy Underhill
Nov 13 - Amy Underhill & Olivia Jones
Dec 5 - Olivia Jones and Juanita Johnson
Dec 6 - Amanda Betts and Barbara Courtney

December 12, 2012 - Perquimans Survey Volunteers (Catch-up Day):
-Wes Gray/Leah Mayo

December 13, 2012 - Camden Survey Volunteers (Catch-Up Day):
-Wes Gray/Leah Mayo

December 18, 2012 - Camden Survey Volunteers (Catch-up Day):
-Amy Underhill/Danielle Barco

The Outer Banks Hospital Survey Volunteers for Currituck County:
-Amy Montgomery, Community Outreach Director
-Marie Neilson, Hands of Hope Volunteer Coordinator
-Debra Johnson, Director of Imaging, Rehabilitation, Laboratory, Cardiopulmonary
-Bob Bersack, OBH Volunteer

Albemarle Health Survey Volunteers for Currituck County:
-Josh Hammond, Manager of Cardiopulmonary Services
- Anna Meads, Quality Manager
-Richard Munden, Director of Security
-Jamie Pierce, Technical Manager
-Sharon McCarty, Director of Materials Management

Perquimans County Community Health Opinion Survey Training, November 7, 2012
211 Market St House, Hertford
Matt Simon

In Attendance:
-Kristy Worrell, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager - Rehab Services
-Tonya Williams, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager - Radiology
-Hunter Baltzglier, Vidant Bertie Hospital & Vidant Chowan Hospital, Wellness Coordinator
-Brian White, Vidant Bertie Hospital & Vidant Chowan Hospital, Director of Support Services
-Mona Hughes, Vidant Bertie Hospital, Manager - Quality Resources
-Josh Hammond, Albemarle Health, Manager of Cardiopulmonary Services

November 7, 2012 - Perquimans Survey Volunteers:
-Kristy Worrell/Tonya Williams
-Hunter Baltzglier/ Brian White
-Mona Hughes/Josh Hammond
Base Coverage - Dana Hamill, Matt Simon, Wesley Nixon

Chowan County Community Health Opinion Survey Training, November 8, 2012
Vidant Chowan Hospital, Edenton
Matt Simon

In Attendance:
1. Brent Jones, Bertie Recreation Department, Recreation Program Coordinator
2. Stephanie Nugen, Vidant Bertie Hospital & Vidant Chowan Hospital, Clinical Dietician
3. Julie Keeter, Vidant Chowan Hospital, Manager – Nutrition Services
4. Randall Walston, Vidant Health, Chief of Police
5. Liz White, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager – Environmental Services
6. Chip Lanier, Vidant Chowan Hospital, Police Lieutenant
7. Elizabeth Lawrence, Vidant Chowan Hospital, Manager – Operating Room
8. Benita Webb, Vidant Chowan Hospital, Manager – Medical/Surgical Department
9. Kelly Cross, Vidant Chowan Hospital, Manager – Gift Shop/Volunteer Services
10. Beverly Venters, Vidant Chowan Hospital, Manager – Quality Resources
11. Megan Booth-Mills, Vidant Bertie Hospital & Vidant Chowan Hospital, Director of Planning & Marketing

12. Kathy Copeland, Bertie Cooperative Extension, Nutrition Program Assistant, EFNEP
13. Ginny Waff, Vidant Chowan Hospital, Executive Director of Vidant Chowan Hospital Foundation
14. Lynn S. Dale, Vidant Chowan Hospital, Manager – Case Management Services
15. Melissa Chappell, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager – Health Information Services
16. Kaili Nixon, Vidant Chowan Hospital, Manager – Emergency Department
17. Debbie Swicegood, Vidant Bertie Hospital & Vidant Chowan Hospital, Director – Human Resources
18. Cheryl Bembry, Vidant Bertie Hospital & Vidant Chowan Hospital, Controller
19. Alisa Perry, Vidant Chowan Hospital, Manager –Labor & Delivery/Nursery Department
20. Ella Coates, Vidant Chowan Hospital, Intensive Care Unit
21. Dana Byrum, Vidant Chowan Hospital, Ambulatory Surgery Units/Clinics/Transitional Care
22. Mary Morris, Bertie Cooperative Extension Agent, Family and Consumer Sciences
23. Nancy Morgan, Albemarle Regional Health Services, Three Rivers Healthy Carolinians Coordinator

November 8, 2012 - Chowan Survey Volunteers:
-Beverly Venters/Melissa Chappell
-Megan Booth-Mills/Lynn S. Dale
-Debbie Swicegood/Julie Keeter
-Liz White/Nancy Morgan
-Dana Byrum/Kaili Nixon
-Alisa Perry/Ella Coates
-Stephanie Nugen/Randy Watson
-Ginny Waff/Cheryl Bembry
-Chip Lanier/Kelly Cross
-Elizabeth Lawrence/Benita Webb
Base Coverage – Matt Simon, Dana Hamill

November 9, 2012 - Chowan Survey Volunteers:
-Debbie Swicegood/Julie Keeter
-Liz White/Nancy Morgan
-Kelly Cross/Brian White
-LaDonna Maddy/Wes Gray
-Megan Booth-Mills/Kaili Nixon
Base Coverage – Wesley Nixon, Dana Hamill

Bertie County Community Health Opinion Survey Training, November 12, 2012
Vidant Bertie Hospital, Windsor
Ashley Stoop

In Attendance:
1. Pat Taylor, Vidant Bertie Hospital, Director of Patient Care Services
2. Valerie Howell, Vidant Bertie Hospital, Supervisor – Patient Access Services
3. Judy Duke, Vidant Bertie Hospital, Manager – Operating Room
4. Renee White, Vidant Bertie Hospital, Manager – Emergency Department
5. Gaye Branch, Vidant Bertie Hospital, Manager – Respiratory Therapy
6. Renee Bryson, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager – Laboratory
7. Amy Bartley, Vidant Bertie Hospital, Supervisor – Health Information Services

8. Scott McDougal, Vidant Bertie Hospital, Police Lieutenant
9. LuAnn Joyner, Vidant Bertie Hospital, Marketing Specialist
10. Jeff Dial, Vidant Bertie Hospital & Vidant Chowan Hospital, VP of Operations
11. Mary Davis, Vidant Family Medicine - Windsor, Manager
12. Kenneth L. Stone, Vidant Bertie Hospital & Vidant Chowan Hospital, Manager – Plant Operations

November 12, 2012 - Bertie Survey Volunteers:
-Valerie Howell/Amy Bartley
-Scott McDougal/LuAnn Joyner
-Renee White/Gaye Branch
-Pat Taylor/Mary Davis
-Lisa Spry/LaDonna Maddy
-Kenny Stone/Megan Booth-Mills
-Wes Gray/Jeff Dial
Base Coverage – Ashley Stoop, Dana Hamill

November 13, 2012 - Bertie Survey Volunteers:
-Kapuaola Gellert/Mona Cai, University of North Carolina Graduate Students (viewed taped training)
-Brent Jones/Nancy Morgan
-Pat Taylor/Renee Bryson
-Judy Duke/Gaye Branch
-Kathy Copeland/Mary Morris
Base Coverage – Dana Hamill, Wesley Nixon

November 14, 2012 - Bertie Survey Volunteers:
-Kapuaola Gellert/Mona Cai/Wes Gray
-Brent Jones/Nancy Morgan
-Pat Taylor/Renee Bryson
-Judy Duke/Gaye Branch
-Kathy Copeland/Mary Morris
Base Coverage – Dana Hamill, Wesley Nixon

Gates County Community Health Opinion Survey Training, October 31, 2012
New Hope Missionary Baptist Church, Gates
Wesley Nixon

In Attendance:
1. Nancy Figgs, Community Volunteer
2. Ashley Taylor, Community Volunteer
3. Claude Odom, New Middle Swamp Missionary Baptist Church, Pastor
4. Fannie Langston, Gates Partners for Health, Eat Smart Move More Coalition Vice Chair
5. Susan H. Ward, T.S. Cooper Elementary School, Retired Principal
6. Katie Speight, Albemarle Regional Health Services, Social Worker II
7. Krystal Sanderson, Community Volunteer
8. Virginia P. Eure, Gates Partners for Health, Chronic Disease Committee Secretary
9. Margaret E. Smith, Community Volunteer
10. Shirley Smith, Community Volunteer
11. Dorothy Riddick, Community Volunteer

12. Della Freeman, Gates Partners for Health, Chronic Disease Committee Member
13. Melissa Harrison, Community Volunteer
14. Jacqueline B. Sears, Gates Partners for Health, Eat Smart Move More Coalition Member
15. T.D. Lassiter, Community Volunteer
16. Glendale P. Boone, Gates County Public Schools, Board Member
17. Bettie Mozell, Community Volunteer
18. Mary H. Boone, Community Volunteer
19. Shirley Johnson, Gates Partners for Health, Eat Smart Move More Coalition Member
20. Pamela Harvey, Down East Health & Rehabilitation Facility, Director
21. Fannie M. Spivey, Department of Social Services, Board Member
22. Maggie Beamon, Community Volunteer
23. Thelma Maxine Raysor, Gates Partners for Health, Chronic Disease Committee Member
24. Carolyn V. Wiggins, Retired School Teacher
25. Esther W. Lassiter, Albemarle Regional Health Services, Gates Partners for Health Coordinator
26. Patricia Boone, Community Volunteer

October 31, 2012 - Gates County Survey Volunteers:

-Susan Ward/Katie Speight
-Bettie Mozell/Fannie Spivey
-Meredith Umphlett/Maggie Beamon/ Thelma Maxine Raysor
-Virginia P. Eure/Margaret E. Smith
-Nancy Figgs/Della Freeman
-Dorothy Riddick/Shirley Smith
-Carolyn Wiggins/Glendale Boone
-Mary Boone/Shirley Johnson
-Esther Lassiter/Fannie Langston/Jacqueline Sears
-Pam Harvey/Melissa Harrison
-Claude Odom/Ashley Taylor
Base Coverage - Wesley Nixon, Dana Hamill

November 15, 2012 - Gates County Survey Volunteers:

-Mary Boone/Shirley Johnson
-Nancy Figgs/Della Freeman
-Katie Speight/Patricia Boone
-Lisa Spry/Nancy Morgan
-Dorothy Riddick/Bettie Mozell
-Esther Lassiter/Jaqueline Sears
-Nancy Figgs/Della Freeman
-Thelma Raysor/Thomas Lassiter
Base Coverage - Dana Hamill

TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

INTRODUCTION

Local public health agencies in North Carolina (NC) are required to conduct a comprehensive Community Health Assessment (CHA) at least once every four years. The CHA is required of public health departments in the consolidated agreement between the NC Division of Public Health (NC DPH) and the local public health agency. Furthermore, a CHA is required for local public health department accreditation through the NC Local Health Department Accreditation Board (G.S. § 130A-34.1). As part of the US Affordable Care Act of 2011, non-profit hospitals are also now required to conduct a community health (needs) assessment at least every three years. Recognizing that duplicate assessment efforts are a poor use of community resources, local health departments (LHDs) and non-profit hospitals across the state are developing models for collaboratively conducting the community health assessment process. For the Albemarle region, a partnership between Albemarle Regional Health Services and local hospitals has been a long-standing tradition, and the hospitals have helped fund and participate in previous community health assessments. This document is the culmination of the most recent partnership between Albemarle Regional Health Services (ARHS), Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), Albemarle Hospital (AH), and The Outer Banks Hospital (TOBH) for the 2013 Community Health Assessment.

In communities where there is an active Healthy Carolinians partnership, the CHA activity also usually includes that entity. 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 partnerships are representatives of the agencies and organizations that serve the health and human service needs of the local population, as well as representatives from businesses, communities of faith, schools and civic groups. In Gates County, the local Healthy Carolinians partnership is the Gates Partnership for Health.

The community health assessment, which is both a process and a document, investigates and describes the current health status of the community, what has changed since the last assessment, 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 professional and public opinion. The *document* is a summary of all the available evidence and serves as a resource until the next assessment. The completed CHA serves as the basis for prioritizing the community's health needs, and culminates in planning to meet those needs.

Albemarle Regional Health Services contracted with Sheila S. Pfaender, Public Health Consultant, to assist in conducting the 2013 Community Health Needs Assessment for the seven counties of the ARHS region, following the guidance provided by the *Community Assessment Guidebook: North Carolina Community Health Assessment Process*, published by the NC Office of Healthy Carolinians/Health Education and the NC State Center for Health Statistics (December 2011). The assessment also adheres to the 2012 standards for community assessment stipulated by the NC Local Health Department Accreditation (NCLHDA) Program.

Dana Hamill, ARHS, Lead Regional CHA coordinator, worked with the consultant to develop a multi-phase plan for conducting the assessment. The phases included: (1) a research phase to identify, collect and review demographic, socioeconomic, health and environmental data; (2) a data synthesis and analysis phase; (3) a period of data reporting and discussion among the project partners; (4) a community input phase to elicit opinion and ideas regarding the

assessment outcomes among community stakeholders; and (5) a prioritization and decision-making phase. Upon completion of this work the CHA partners and the community will have the tools they need to develop plans and activities that will improve the health and well-being of the people living in Gates County. The consultant provided direct technical assistance for phases 1, 2, and 3.

ASSESSMENT METHODOLOGY

In order to learn about the specific factors affecting the health and quality of life of Gates County residents, the consultant tapped numerous readily available secondary data sources. For data on Gates County demographic, economic and social characteristics sources included: the US Census Bureau; Log Into North Carolina (LINC); NC Office of State Budget and Management; NC Department of Commerce; Employment Security Commission of NC; NC Division of Aging and Adult Services; NC Child Advocacy Institute; NC Department of Public Instruction; NC Department of Justice; NC Department of Juvenile Justice and Delinquency Prevention; NC Department of Administration; NC Division of Medical Assistance; NC Division of Child Development; NC State Board of Elections; NC Division of Health Services Regulation; the Cecil B. Sheps Center for Health Services Research; and the Annie E. Casey Foundation *Kids Count Data Center*. Local sources for socioeconomic data included: the Gates County Department of Social Services; Gates County Schools; and other Gates County agencies and organizations. The author has made every effort to obtain the most current data available at the time the report was prepared.

The primary source of health data for this report was the NC State Center for Health Statistics, including its County Health Data Books, Behavioral Risk Factor Surveillance System, Vital Statistics, and Cancer Registry. Other health data sources included: US Centers for Disease Control and Prevention; NC DPH Epidemiology Section; NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services; National Center for Health Statistics; Healthy People 2020; NC DPH Nutrition Services Branch; UNC Highway Safety Research Center; NC Department of Transportation; and the NC DPH Oral Health Section. Through the current CHA partnership with the region's hospitals, the consultant accessed de-identified hospital utilization data (e.g., emergency department visits, in-patient hospitalizations, and surgeries) that contributed greatly to the understanding of health issues in Gates County. Other important local health data sources included ARHS, and Gates County Emergency Medical Services.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Gates County data is compared to like data describing the state of NC as a whole, as well as to data from Jones County, a state-recommended "peer county". Also used for comparison is data for the average measure of each parameter in the seven counties in the ARHS jurisdiction: Bertie County, Camden County, Chowan County, Currituck County, Gates County, Pasquotank County and Perquimans County. In some cases Gates County data is compared to US-level data, or to Healthy People 2020 goals or other standardized measures. Where appropriate, trend data has been used to show changes in indicators over time, at least since the 2010 Gates County CHA, but sometimes further back than that.

Environmental data were gathered from sources including: US Environmental Protection Agency; NC Department of Environment and Natural Resources Divisions of Air Quality, Waste Management, and Environmental Health; and NC State Laboratory of Public Health.

ARHS and its partners conducted a community health survey among members of the public and a stakeholder survey among community leaders as part of the CHA process. The methodologies and results of these surveys are presented in a separate section of this report.

CHAPTER ONE: DEMOGRAPHIC DATA

GEOGRAPHY

Gates County is a small, rural county located in the northeastern part of NC in the Coastal Plain region of the state. The county contains miles of waterfront along the Chowan River and is characterized by swamps in the east and flat plains and woodlands with shallow stream valleys throughout the remainder of the county. The county covers 346 square miles, five of those in water. The Great Dismal Swamp lies to the east and is one of the county's largest natural preserves (1,2).

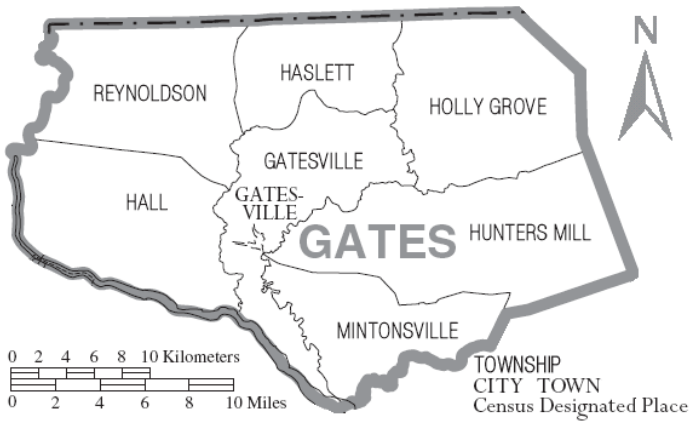
The county seat is Gatesville. The county borders Hertford County to the west, Southampton County to the northwest, Camden County to the northeast, Pasquotank County to the east and Perquimans County to the southeast. Gates also borders the state of Virginia to the north (1,2).

US Highways 13 and 158 run through Gates County. US 158 runs south to the Albemarle Sound and northwest to Elizabeth City. Highway 13 runs north and south through the county. Both join US Highway 64, which leads to the Outer Banks to the east and to Raleigh going west. The nearest major interstate is I-95, approximately 60 miles west of the county (3).

There are several commercial airports accessible to the county. The two closest are Norfolk International Airport in Norfolk, VA, 54 miles from the center of the county, and Newport News/Williamsburg International Airport in Newport News, VA, which is 66 miles from Gates County. The Richmond International Airport is approximately 97 miles from the county, and the Raleigh-Durham International Airport is about 160 miles away. The nearest Greyhound bus stop is in Edenton, NC, about 30 miles from Gatesville. Amtrak's nearest stations are in Norfolk and Newport News, VA, both between 40 and 50 miles from Gatesville (4,5,6).

The county's elevation ranges from near sea level to 85 feet. Gates County has a relatively mild climate. It gets approximately 49 inches of rain yearly and three inches of snow. The average high temperature in July is 90 degrees and the average low January temperature is 29 degrees. The county has approximately 98 days of yearly measurable precipitation and an average of 213 sunny days a year (7).

Figure 1. Map of Gates County



HISTORY

Gates County is part of the Albemarle Sound area of the Inner Banks. The county derives its name in honor of General Horatio Gates, a war hero who was commander of victorious colonial forces at the Battle of Saratoga in 1777 (1,2).

Gates County was formed in 1779 from Chowan, Hertford, and Perquimans counties. Prior to the settlement of this area by the Europeans, it was the home to the Nansemond, Chesapeake, Chowanoc/Chowanoke, Meherrin and Nottoway Indians. They were a peaceful people, but unfortunately their days were numbered once settlers made their way into the region. By 1711, few Native Americans were left in the county, but it is not uncommon to find traces of these gentle people in the county's fields. Arrowheads and pottery shards have often been found in open fields and along riverbanks (1, 2).

Pioneers in the early settlement years had to work to make a living off of land that was riddled with swamps and sandy soil that did not easily produce. Due to the landscape, many passed over the area for lands that were richer and had fewer wetlands. Those who remained had to be a determined and resourceful lot. Many of the surnames still represented in the county today originated from some of the earliest pioneers and were the same names that George Washington and other notable Americans were familiar with in the early days of the area's history. Among many others are: Brinkley, Eure, Riddick, Benton, Lane, Cowper, Cross and Norfleet (1).

The area grew from a thickly wooded and inhospitable land to an agrarian community between 1728 and 1780, giving it many of the same resources as surrounding areas. However, because of few navigable waterways, it was difficult for the county to grow into a prosperous urban center. The main commerce was in hogs sold in Nansemond County, tar made from the county's pine forests, and timber from the thick, virgin forests (1).

A courthouse, prison, and stocks were built in 1780 in what was then known as Gates Court House. Legislature passed an act in 1830, changing the name of the county seat to Gatesville. Gatesville remains the county seat and only major town in the county. A Federal style courthouse that was built in 1836 now houses the Gates County Public Library and Gates County Historical Society (1).

The rich religious history of Gates County aided in what some historians call the "democratization of Christianity". Several of the state's earliest Baptist and Methodist churches were founded in Gates County, notably the Middle Swamp Baptist Church in 1806 and the Savages United Methodist Church in 1811. Both denominations preached to integrated congregations, this practice continuing until the Civil War (8).

The Confederate's youngest Brigadier General at age 20, General William P. Roberts was born in Gates County in 1841. He commanded the NC Cavalry, the 12th NC Battalion, Georgia Battalion, General W.H.F. Lee's Division and Hampton's Cavalry Corps Army of Northern Virginia. He represented Gates County at the constitutional convention in 1875 and was elected to the state legislature a year later. He became a state auditor in 1880 and served until 1888. Another Gates County resident, Laurence H. Simmons also rose to the rank of Brigadier General. Gates County supplied the Confederate States of America with food by shipping it though the Great Dismal Swamp Canal (1,8).

In the 1900s, the county's landscape was altered by technological changes. Bridges were built to connect Gates with its neighbors and railroads emerged as the new means of trade and transportation. This significantly aided in the export of the county's timber and agriculture. As a consequence, the Great Dismal Swamp was turned into a recreational site. Eventually, the railroads stopped running through the county, after highways made truck shipment cheaper than the rails (1,8).

Not a lot has changed since the late 18th century. Gates County still relies on the agricultural and timber industry more than any other commercial enterprise. The population hasn't grown considerably, only adding to the small town feeling of this tight-knit and hospitable community (1).

Gates County offers pristine views of the Albemarle Sound to its south and contains a portion of the Great Dismal Swamp Canal. Both bodies of water are used primarily for recreational activity and leisure. Merchants Millpond State Park is also located in the county and is famous for its cypress trees and large swamp. There is much scenic beauty and nature to be enjoyed in the county. With the Chowan River, Beaver Lake, Merchant's Millpond, and the Great Dismal Swamp, the county is a popular outdoor sports destination. There is plenty of game land and private property for hunting. There are three wildlife boat ramps in the region, making it excellent for fishing and boating (1,8).

POPULATION CHARACTERISTICS

General Population Characteristics

The following general population characteristics of Gates County and its peer county were based on 2010 US Census data presented in Table 1.

- As of the 2010 US Census, the population of Gates County was 12,197.
- There was a slightly higher proportion of females than males in Gates County: 51.1% vs. 48.9%.
- The overall median age in Gates County was 42.0, the same as the median age for the seven-county ARHS region and 2.1 years younger than for Jones County, an assigned peer county. The median age in Gates County was 4.6 years older than the median age for NC as a whole.

Table 1. General Demographic Characteristics (2010 US Census)

Location	Total Population	Number Males	% Population Male	Median Age Males	Number Females	% Population Female	Median Age Females	Overall Median Age
Gates County	12,197	5,962	48.9	41.4	6,235	51.1	42.5	42.0
Regional Average	19,416	9,517	49.0	40.7	9,900	51.0	43.2	42.0
Jones County	10,153	4,886	48.1	42.8	5,270	51.9	45.3	44.1
State of NC	9,535,483	4,645,492	48.7	36.0	4,889,991	51.3	38.7	37.4

Note: percentages by gender are calculated.
Source: US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

Population by Township

Gates County is divided into seven townships: Gatesville Township, Hall Township, Haslett Township, Holly Grove Township, Hunters Mills Township, Mintonsville Township, and Reynoldson Township. The following population information was derived from 2010 US Census data presented in Table 2.

- Haslett Township was the largest township by population in Gates County, accounting for 21% of the county's population.
- Holly Grove Township was the second-largest township in Gates County, with approximately 18% of the county's population.
- Mintonsville Township was the smallest township in Gates County, and was home to only 9% of the overall county population.
- Haslett Township was the youngest township in the county in terms of median age: 38.1 years.
- Gatesville and Mintonsville Townships were the oldest township in the county, each with a median age of 45.8 years.

Table 2. Population by Township, Gates County (2010 US Census)

Township	No. of Persons	% of County Population	Median Age
Gatesville Township	1,614	13.2	45.8
Hall Township	1,538	12.6	41.4
Haslett Township	2,560	21.0	38.1
Holly Grove Township	2,141	17.6	43.1
Hunters Mills Township	1,446	11.9	42.2
Mintonsville Township	1,097	9.0	45.8
Reynoldson Township	1,801	14.8	41.3
Gates County Total	**12,197**	**100.0**	**42.0**

Source: US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

Population Growth

Table 3 presents historical population counts and population projections from 1980 through 2030. From this data, it appears that the Gates County population will continue to grow through 2030. By 2030 the growth rate in Gates County is expected to be the highest among the comparator jurisdictions.

Table 3. Decadal Population Growth (1980-2030)

Location	Number of Persons and Percent Change										
	1980	1990	% Change 1980-1990	2000	% Change 1990-2000	2010	% Change 2000-2010	2020 (Projection)	% Change 2010-2020	2030 (Projection)	% Change 2020-2030
Gates County	8,875	9,305	4.8	10,516	13.0	12,197	16.0	13,960	14.5	15,911	14.0
Regional Average	13,908	14,941	7.4	16,550	10.8	19,416	17.3	20,096	3.5	20,772	3.4
Jones County	9,705	9,414	-3.0	10,398	10.5	10,153	-2.4	10,203	0.5	10,203	0.0
State of NC	5,880,095	6,632,448	12.8	8,046,485	21.3	9,535,483	18.5	10,966,956	15.0	12,465,481	13.7

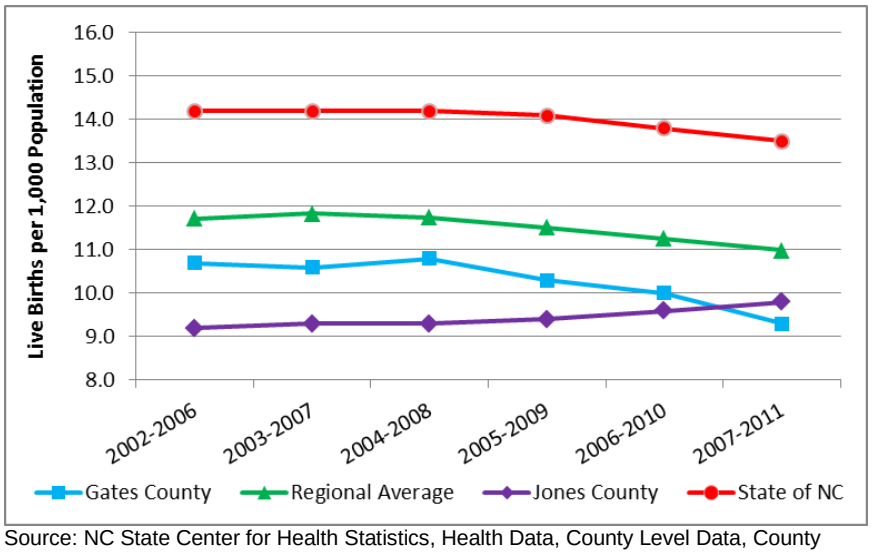
Note: percentage change is calculated.
Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population (Data Item 5001); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Birth Rate

Overall population growth is a function both of increase (via immigration and birth) and decrease (via emigration and death). Figure 2 illustrates that the birth rate is declining in NC and two of the three other jurisdictions in the comparison.)

- Birth rates in all jurisdictions except Jones County decreased over the period cited. The decrease in Gates County was 13%. The decrease was 6% region-wide and 5% statewide.
- The birth rate in Gates County was lower than the comparable rate for either the region or the state throughout the period cited, even though it increased 7% over the period cited.

Figure 2. Birth Rate Trend, Live Births per 1,000 Total Population (Five-Year Aggregates, 2002-2006 through 2007-2011)



Source: NC State Center for Health Statistics, Health Data, County Level Data, County Health Databooks 2008, 2009, 2010, 2011, 2012, 2013; http://www.schs.state.nc.us/schs/data/databook/.

Population Density

The Gates County population appears to be *increasing* in density, as it is in the comparator jurisdictions. In every year cited, Jones County was the least densely populated jurisdiction among those being compared (Table 4).

Table 4. Decadal Population Density (1980-2030)

Location	Persons per Square Mile					
	1980	1990	2000	2010 (Estimate)	2020 (Projection)	2030 (Projection)
Gates County	26.24	27.32	30.87	34.67	38.06	41.08
Regional Average	50.91	55.99	62.72	75.55	86.94	94.46
Jones County	20.65	19.89	22.08	21.93	22.23	22.35
State of NC	120.4	136.1	165.2	191.9	219.9	248.2

Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population Density (Data Item 5004); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Race and Ethnicity

The population of Gates County was about as racially diverse as the population in the ARHS region overall, but less diverse than in Jones County and more diverse than the state as a whole. According to data in Table 5 from the 2010 US Census, the non-white population in Gates County was approximately 36% of the total population, compared to 36% in the region and 32% in NC. The non-white population in Jones County was 37% of the total population there.

According to data in Table 5, in Gates County:

- Whites composed 63.7% of the total population; regionally the comparable figure was 63.7% and statewide the figure was 68.5%.
- Blacks/African Americans composed 33.2% of the total population; regionally the comparable figure was 32.2% and statewide the figure was 21.5%.
- American Indians and Alaskan Natives composed 0.5% of the total population; regionally the comparable figure was 0.4% and statewide the figure was 1.3%.
- Asians, Native Hawaiians and Other Pacific Islanders composed 0.2% of the total population; regionally the comparable figure was 0.7% and statewide the figure was 2.3%.
- Hispanics/Latinos of any race composed 1.4% of the total population; regionally the comparable figure was 2.8% and statewide the figure was 8.4%.

Table 5. Population Distribution by Race/Ethnicity (2010 US Census)

Location	Total	Number and Percent													
		White		Black or African-American		American Indian and Alaskan Native		Asian, Native Hawaiian and Other Pacific Islander		Some Other Race		Two or More Races		Hispanic or Latino of Any Race	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gates County	12,197	7,768	63.7	4,044	33.2	65	0.5	27	0.2	73	0.6	220	1.8	173	1.4
Regional Average	19,416	12,378	63.7	6,256	32.2	75	0.4	145	0.7	232	1.2	330	1.7	541	2.8
Jones County	10,153	6,395	63.0	3,289	32.4	57	0.6	34	0.3	190	1.9	188	1.9	398	3.9
State of NC	9,535,483	6,528,950	68.5	2,048,628	21.5	122,110	1.3	215,566	2.3	414,030	4.3	206,199	2.2	800,120	8.4
Source	a	a	b	a	b	a	b	a	b	a	b	a	b	a	b

Note: percentages are calculated.
Source: US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

Race and Ethnicity by Township

The following information about racial and ethnic population diversity at the township level in Gates County was derived from 2010 US Census data presented in Table 6.

- All townships in Gates County except Gatesville Township were predominately white.
- Gatesville Township was the township with the largest *number* of Black/African Americans, 847; this figure represented 6.9% of the total county population and 20.9% of all Black/African American persons in the county.
- Haslett Township also was the township with the largest *number* of whites, 1,785; this figure represented 14.6% of the total county population and 23.0% of all the white persons in the county.
- Holly Grove Township also was the township with the largest *number* of Hispanics/Latinos, 48; this figure represented 0.4% of the total county population and 27.7% of all Hispanic/Latino persons in the county.

Table 6. Population by Race/Ethnicity, by Township, Gates County (2010 US Census)

Township	Persons Self-Identifying as of One Race											Two or More Races		Hispanic or Latino (of any race)	
	Total Population	White		Black or African American		American Indian and Alaska Native		Asian, Native Hawaiian or Other Pacific Islander		Some Other Race					
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No	%
Gatesville Township	1,614	736	6.0	847	6.9	2	0.0	0	0.0	1	0.0	28	0.2	3	0.0
Hall Township	1,538	1,277	10.5	239	2.0	4	0.0	2	0.0	1	0.0	15	0.1	14	0.1
Haslett Township	2,560	1,785	14.6	657	5.4	28	0.2	6	0.0	18	0.1	66	0.5	40	0.3
Holly Grove Township	2,141	1,646	13.5	437	3.6	4	0.0	4	0.0	21	0.2	29	0.2	48	0.4
Hunters Mill Township	1,446	743	6.1	660	5.4	8	0.1	7	0.1	5	0.0	23	0.2	20	0.2
Mintonsville Township	1,097	655	5.4	419	3.4	0	0.0	5	0.0	1	0.0	17	0.1	9	0.1
Reynoldson Township	1,801	926	7.6	785	6.4	19	0.2	3	0.0	26	0.2	42	0.3	39	0.3
Gates County Total	**12,197**	**7,768**	**63.7**	**4,044**	**33.2**	**65**	**0.5**	**27**	**0.2**	**73**	**0.6**	**220**	**1.8**	**173**	**1.4**

Note: percentages are calculated from population figures. Percentage figures describe a racial or ethnic group as a proportion of the overall county population.
Source: US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

Age

The following information about the age (and gender) distribution of the Gates County population was derived from 2010 US Census data presented in Table 7. Generally, these data demonstrate that Gates County had a population distribution skewed older than the distribution for the state as a whole.

- In terms of both numbers (1,096) and percent (9.0%), the largest segment of the population in Gates County was the age group 45-49. This is the same as in NC as a whole, where the segment composing the largest number and percent (7.3%) of the state's population also was the 45-49 age group.
- Persons 65 years of age or older composed 15.0% of the population in Gates County, but 12.8% of the population of NC.
- Persons 19 years of age and younger composed 26.2% of the population in Gates County, and 26.8% of the population of NC.
- In Gates County, females consistently outnumber males in every age group 20-24 and older except for the age groups 40-44 and 50-54. In NC, a similar trend begins later, at age 45-49.

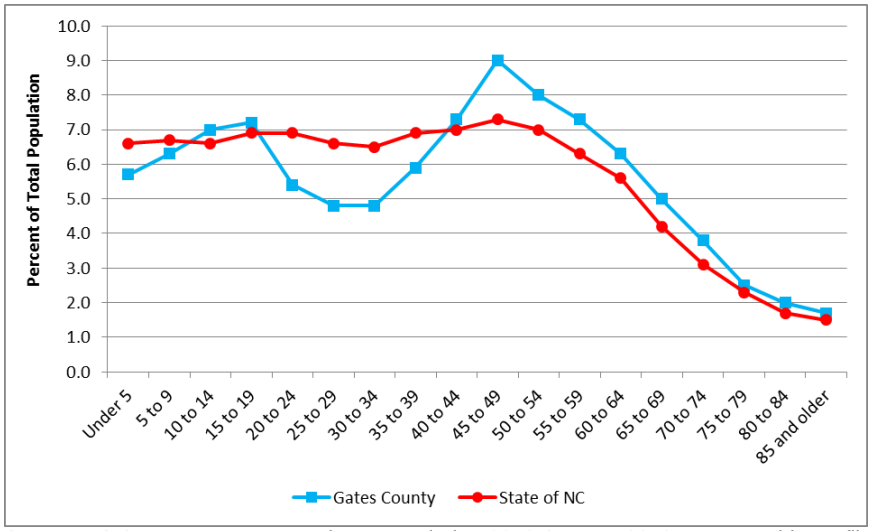
Table 7. Population Distribution by Age and Gender, Number and Percent (2010 US Census)

Age Group	Gates County						North Carolina					
	No. in Population			% of Total Population			No. in Population			% of Total Population		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	12,197	5,962	6,235	100.0	48.9	51.1	9,535,483	4,645,492	4,889,991	100.0	48.7	51.3
Under 5	695	355	340	5.7	2.9	2.8	632,040	322,871	309,169	6.6	3.4	3.2
5 to 9	772	392	380	6.3	3.2	3.1	635,945	324,900	311,045	6.7	3.4	3.3
10 to 14	851	454	397	7.0	3.7	3.3	631,104	322,795	308,309	6.6	3.4	3.2
15 to 19	882	438	444	7.2	3.6	3.6	659,591	338,271	321,320	6.9	3.5	3.4
20 to 24	654	322	332	5.4	2.6	2.7	661,573	336,648	324,925	6.9	3.5	3.4
25 to 29	589	290	299	4.8	2.4	2.5	627,036	311,499	315,537	6.6	3.3	3.3
30 to 34	589	282	307	4.8	2.3	2.5	619,557	304,807	314,750	6.5	3.2	3.3
35 to 39	720	329	391	5.9	2.7	3.2	659,843	324,681	335,162	6.9	3.4	3.5
40 to 44	889	450	439	7.3	3.7	3.6	667,308	329,652	337,656	7.0	3.5	3.5
45 to 49	1,096	518	578	9.0	4.2	4.7	698,753	341,432	357,321	7.3	3.6	3.7
50 to 54	976	495	481	8.0	4.1	3.9	669,893	323,702	346,191	7.0	3.4	3.6
55 to 59	888	440	448	7.3	3.6	3.7	600,722	285,244	315,478	6.3	3.0	3.3
60 to 64	765	362	403	6.3	3.0	3.3	538,039	255,034	283,005	5.6	2.7	3.0
65 to 69	615	302	313	5.0	2.5	2.6	403,024	188,125	214,899	4.2	2.0	2.3
70 to 74	469	230	239	3.8	1.9	2.0	294,543	133,021	161,522	3.1	1.4	1.7
75 to 79	299	131	168	2.5	1.1	1.4	223,655	94,981	128,674	2.3	1.0	1.3
80 to 84	241	95	146	2.0	0.8	1.2	165,396	63,573	101,823	1.7	0.7	1.1
85 and older	207	77	130	1.7	0.6	1.1	147,461	44,256	103,205	1.5	0.5	1.1

Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.

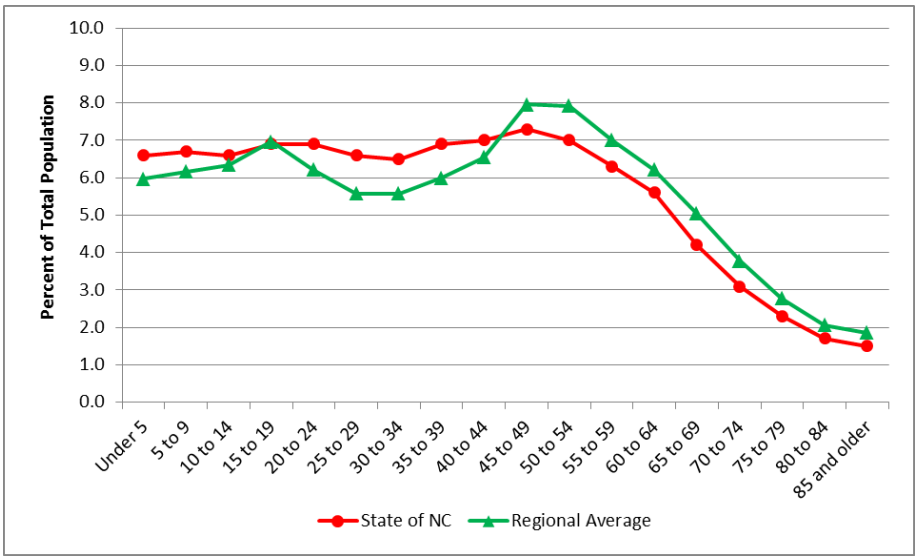
Figures 3 and 4 compare the age distribution of the NC population to the age distribution of the populations in Gates County and the ARHS Region, respectively. In Gates County as well as the region there was a smaller proportion of young persons and a larger proportion of older persons than demonstrated in the state age distribution profile.

Figure 3. Population Distribution by Age, Gates County and NC (2010)



Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010 (Geographies as noted); http://factfinder2.census.gov.

Figure 4. Population Distribution by Age, ARHS Region and NC (2010)



Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics: 2010 (Geographies as noted); http://factfinder2.census.gov.

Age by Township

The discussion below is based on the 2010 US Census data presented in Table 8.

- Haslett Township was the Gates County township with the highest proportion of persons in the four youngest age categories: under the age of 18 (27.3%), ages 18-24 (8.4%), ages 25-34 (10.8%) and ages 35-44 (15.2%).
- Reynoldson Township had the highest proportion of persons ages 45-54 (18.8%).
- Gatesville Township had the highest proportion of persons ages 55-64 (15.9%).
- Mintonsville Township had the highest proportion of persons ages 65 and older (21.1%).

Table 8. Population by Age, by Township, Gates County (2010 US Census)

Township	Percent of Total Population						
	<18	18-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65 Years and Over
Gatesville Township	21.6	7.6	8.1	11.2	17.3	15.9	18.3
Hall Township	23.6	7.6	9.8	13.8	16.6	14.1	14.5
Haslett Township	27.3	8.4	10.8	15.2	15.7	13.1	9.5
Holly Grove Township	22.8	7.1	9.5	13.6	17.7	13.6	15.7
Hunters Mill Township	23.9	8.0	9.1	12.4	16.2	11.8	18.8
Mintonsville Township	20.0	7.8	9.2	11.8	16.8	13.3	21.1
Reynoldson Township	24.4	8.0	10.3	12.7	18.8	13.1	12.7
Gates County Total	23.8	7.8	9.7	13.2	17.0	13.6	15.0

Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Census Summary File 1 (SF-1), Table QT-P1, Age Groups and Sex (geographies as listed); http://factfinder2.census.gov.

Elderly Population

Because the proportion of the Gates County population age 65 and older is larger than the proportion of that age group statewide, it merits closer examination. The population segment age 65 and older often requires more and different health and social services than the rest of the population, and understanding how that population will change in coming years will be an important consideration in planning to meet future health and human service needs.

The following information regarding the elderly population in Gates County was extracted from multi-part Table 9, which was based on 2000 and 2010 US Census figures and current projections for the years 2020 and 2030 from the NC Office of State Budget and Management.

- The proportion of every age group in Gates County age 65 and older will increase through the year 2030.
- Though all segments of the elderly population will grow, the segment expected to grow by the largest percentage in the 20 years between 2010 and 2030 is the group aged 75-84, which is predicted to grow by 66% over that period, from 4.4% to 7.3% of the total county population.
- The segment of the population expected to grow by the second largest percentage between 2010 and 2030 is the group aged 65-74, which is predicted to grow by 52% over that period, from 8.9% to 13.5% of the total county population.
- The segment of the Gates County population age 65 and older is projected to total 3,596 persons by 2030.

Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade (2000 through 2030)

Location	2000 Census Data								
	Total Population (2000)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Gates County	10,516	1,514	14.4	821	7.8	519	4.9	174	1.7
Regional Total	116,155	17,502	15.1	9,504	8.2	6,011	5.2	1,987	1.7
Regional Average	16,594	2,500	n/a	1,358	n/a	859	n/a	284	n/a
Jones County	10,381	1,603	15.4	869	8.4	564	5.4	170	1.6
State of NC	8,049,313	969,048	12.0	533,777	6.6	329,810	4.1	105,461	1.3
Source	1	1	1	1	5	1	5	1	5

Location	2010 Census Data								
	Total Population (2010)	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Gates County	12,197	1,831	15.0	1,084	8.9	540	4.4	207	1.7
Regional Total	135,913	21,119	15.5	12,006	8.8	6,579	4.8	2,534	1.9
Regional Average	19,416	3,017	n/a	1,715	n/a	940	n/a	362	n/a
Jones County	10,153	1,756	17.3	975	9.6	568	5.6	213	2.1
State of NC	9,535,483	1,234,079	12.9	697,567	7.3	389,051	4.1	147,461	1.5
Source	2	2	2	2	5	2	5	2	5

Table 9. Growth Trend for the Elderly (Age 65 and Older) Population, by Decade (2000 through 2030)
Continued

Location	2020 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Gates County	13,686	2,599	19.0	1,570	11.5	786	5.7	243	1.8
Regional Total	141,935	27,796	19.6	16,069	11.3	8,592	6.1	3,135	2.2
Regional Average	20,276	3,971	19.6	2,296	n/a	1,227	n/a	448	n/a
Jones County	10,494	2,312	22.0	1,384	13.2	679	6.5	249	2.4
State of NC	10,614,862	1,763,950	16.6	1,051,688	9.9	519,963	4.9	192,299	1.8
Source	3	3	5	3	5	3	5	3	5

Location	2030 (Projected)								
	Total Projected Population	# Population Age 65 and Older	% Population Age 65 and Older	# Age 65-74	% Age 65-74	# Age 75-84	% Age 75-84	# Age 85+	% Age 85+
Gates County	15,578	3,596	23.1	2,108	13.5	1,141	7.3	347	2.2
Regional Total	149,095	34,752	23.3	19,056	12.8	11,566	7.8	4,130	2.8
Regional Average	21,299	4,965	n/a	2,722	n/a	1,652	n/a	590	n/a
Jones County	10,493	2,624	25.0	1,382	13.2	951	9.1	291	2.8
State of NC	11,629,556	2,262,855	19.5	1,241,404	10.7	765,598	6.6	255,853	2.2
Source	4	4	5	4	5	4	5	4	5

1 - US Census Bureau, American FactFinder. *Profile of General Demographic Characteristics: 2000 (DP-1), SF1;* http://factfinder2.census.gov.
2 - US Census Bureau, American FactFinder. *Profile of General Population and Housing Characteristics: 2010 (DP-1);* http://factfinder2.census.gov.
3 - NC Office of State Budget and Management, County/State Population Projections. *Age, Race, and Sex Projections, Age Groups - Total, July 1, 2020 County Total Age Groups - Standard;* http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_projections.shtm.
4 - NC Office of State Budget and Management, County/State Population Projections. *Age, Race, and Sex Projections, Age Groups - Total, July 1, 2030 County Total Age Groups - Standard;* http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates/county_projections.shtm.
5 – Percentages are calculated using age group population as numerator and total population as denominator.

Demographic Characteristics of the Elderly Population

Table 10 summarizes a variety of data describing the educational and financial status of the elderly population. Regarding the populations aged 65 or older in the jurisdictions presented for comparison in the table, the elderly population in Gates County had:

- the second-highest proportion with less than a high school diploma or GED (32.3%);
- the lowest proportion with a graduate or professional degree (0.1%);
- the lowest median household income ($22,533), which was $8,492 lower than the NC average ($31,025); and
- the second-lowest monthly social security benefits ($1,034).

In addition, Gates County had the lowest proportion of persons age 65 or older in the labor force (11.9%) and the highest proportion of elderly homeowners (88.3%).

Table 10. Demographic Characteristics of the Population Age 65+

Location	% Persons Age 65+ with < HS Diploma or GED (2006-2010)	% Persons Age 65+ with Graduate or Professional Degree (2006-2010)	% Homeowners Age 65+ (2010)	% Persons Age 65+ in Labor Force (2006-2010)	Median Household Income Persons Age 65+ (2006-2010)	Average Monthly Social Security Benefit for Persons Age 65+ (2010)
Gates County	32.3	0.1	88.3	11.9	$22,533	$1,034
Regional Average	31.7	4.6	84.6	15.2	$30,795	$1,047
Jones County	37.2	3.7	82.6	15.4	$30,951	$963
State of NC	28.4	7.5	79.9	14.9	$31,025	$1,151

Source: NC DHHS Division of Aging and Senior Services, County Profiles; http://www.dhhs.state.nc.us/aging/cprofile/cprofile.htm.

Non-English Speaking Population

The foreign-born population in a community is one that potentially does not speak English, and so is of concern to service providers.

In NC, the greatest proportion of the increase in foreign-born persons is represented by immigrants of Hispanic origin; however, statewide there has also been an influx of foreign-born immigrants from Southeast Asia.

According to US Census Bureau estimates summarized in Table 11:

- There were 282 foreign-born residents residing in Gates County in 2010. Using a base 2010 county population figure of 12,197, foreign-born residents made up 1% of the total county population at that time.
- Since 1980, the largest influx of the foreign-born population in Gates County—141 persons—arrived between 2000 and 2010, an increase of 100% over that 10-year span. That rate of county increase was approximately 1½ times the comparable figure for NC as a whole, 67.4%.
- Between 2000 and 2010 the foreign-born population in the region was approximately 71%.

Table 11. Growth of the Foreign-Born Population (Before 1980 through 2010)

Location	Number of Persons Arriving				% Increase 2000-2010
	Before 1980	1980-1989	1990-1999	After 2000	
Gates County	108	18	15	141	100.0
Regional Total	1,345	581	595	1,784	70.8
Jones County	123	12	99	136	58.1
State of NC	116,761	104,544	240,941	311,461	67.4
Source:	1	1	1	1	a

Source: US Census Bureau, American Fact Finder, 2010 ACS 5-Year Estimates, Table B05005: Year of Entry by Citizenship Status in the United States. http://factfinder2.census.gov.

Linguistic Isolation

"Linguistic isolation", reflected as an inability to communicate because of a lack of language skills, can be a barrier preventing foreign-born residents from accessing needed services. The US Census Bureau tracks linguistically isolated households according to the following definition:

> *A linguistically isolated household is one in which no member 14 years and over (1) speaks only English, or (2) speaks a non-English language and speaks English "very well". In other words, all members 14 years old and over have at least some difficulty with English.*

The following information about linguistically isolated households is derived from the 2005-2009 five-year US Census Bureau estimates presented in Table 12.

- Of the 4,001 Gates County households included in the statistic, an estimated 83 (2.1%) spoke a language other than English. Of these, none were deemed linguistically isolated.
- On the households speaking a language other than English, the majority (61 or 83) spoke Spanish.

Table 12. Household Language by Linguistic Isolation (Five-Year Estimate, 2005-2009)

Location	Total Households	Number of Households								
		English-Speaking	Spanish-Speaking		Speaking Other Indo-European Languages		Speaking Asian or Pacific Island Languages		Speaking Other Languages	
			Isolated	Not isolated	Isolated	Not isolated	Isolated	Not isolated	Isolated	Not isolated
Gates County	4,001	3,918	0	61	0	14	0	8	0	0
Regional Total	49,669	47,242	206	1,102	0	901	21	132	0	65
Regional Average	7,096	6,749	29	157	0	129	3	19	0	9
Jones County	4,019	3,803	57	102	17	38	0	2	0	0
State of NC	3,541,807	3,194,328	71,843	137,729	7,637	67,897	10,388	35,597	2,466	13,922

Source: US Census Bureau, American Fact Finder, Table B16002: Household Language by Linguistic Isolation, 2009 American Community Survey 5-Year Estimates. http://factfinder.census.gov.

Age Distribution of the Latino Population

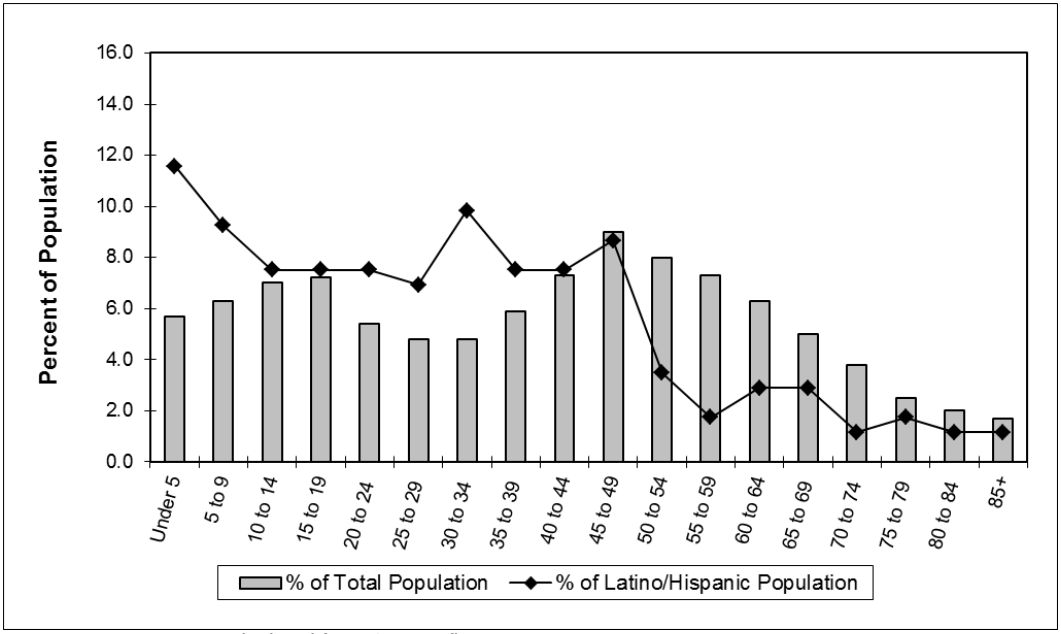
Since the Hispanic/Latino population is the principal foreign-language group in Gates County, further knowledge of the characteristics of this group is helpful in anticipating service needs.

In Gates County, as in other counties in NC, a major impetus for immigration—at least until the economic downturn that began in 2008—was the prospect of employment opportunities. One would expect then that the age groups predominant in this population would be those in their "prime" for work, especially the physical labor-type jobs in construction, agricultural, and fishing industries available to them in the coastal region of the state. The spouses of these workers would be in the midst of their childbearing years, so it might also be expected that this population would have children.

Figure 5 is a graphic depiction of the 2010 US Census population profile by age group of the total Gates County population compared to the same profile for the Hispanic/Latino population.

- In Gates County all age groups under the age of 45 were present in higher proportions in the Hispanic/Latino population than in the overall county population. There were lower proportions for Hispanics/Latinos than for the general population in all the other age groups.
- The highest proportions of the Hispanic/Latino population in Gates County occurred in the under 5 and 30-34 age groups. In the overall county population, the highest proportions were in age groups covering the span from 45 to 59.

Figure 5. Age Distribution of Overall and Latino Populations in Gates County (2010)



Note: percentages are calculated from Census figures.
Source (Overall Population): US Census Bureau, American Fact Finder, 2010 Census, Summary File DP-1, 2010 Demographic Profile Data, Profile of General Population and Housing Characteristics: 2010; http://factfinder2.census.gov.
Source (Latino Population): US Census Bureau, American Fact Finder, 2010 Census, Summary File 1 (SF-1), PCT12H, Sex by Age (Hispanic or Latino) (geographies as noted); http://factfinder2.census.gov.

Special Populations

Military Veterans

A population group that sometimes needs special health services is military veterans. Table 13 summarizes information about that population for the aggregate period 2006-2010.

The population in Gates County had the second-lowest proportion of military veterans among the four NC jurisdictions under comparison. Veterans composed 12.0% of Gates County's overall adult civilian population in the period cited; the figure for the state as a whole (10.8) was lowest.

The counties in the ARHS region are home to larger contingents of elderly veterans than elsewhere. In Gates County, 37.4% of veterans were age 65 or older, compared to 38.0% in the region and 30.6% in Jones County. Nationally, 40.0% of the veteran population was age 65 or older; in NC the comparable figure was 35.7%.

Table 13. Veteran Status of Population (Five-Year Estimate, 2006-2010)

Location	Civilian Population 18 years and over					% Veterans by Age				
	Total	# Non-Veterans	% Non-Veterans	# Veterans	% Veterans	18 to 34 years	35 to 54 years	55 to 64 years	65 to 74 years	75 years and over
Gates County	9,010	7,933	88.0	1,077	12.0	9.2	28.2	25.3	21.2	16.2
Regional Total	101,634	88,534	87.1	13,100	12.9	n/a	n/a	n/a	n/a	n/a
Regional Average	14,519	12,648	87.1	1,871	12.9	5.9	26.3	25.4	19.7	18.3
Jones County	7,760	6,701	86.4	1,059	13.6	15.3	25.8	28.3	15.4	15.2
State of NC	6,947,547	6,200,495	89.2	747,052	10.8	8.7	30.0	25.7	17.9	17.8
National Total	228,808,831	206,156,335	90.1	22,652,496	9.9	7.8	26.3	25.4	19.0	21.4

Source: US Census Bureau, American Fact Finder. Veteran Status, 2010 American Community Survey 5-Year Estimate. Table S2101: Veteran Status; http://factfinder2.census.gov.

Blind and Visually-Impaired Persons

Table 14 presents recent data on the number of blind or visually-impaired persons in the jurisdictions being compared. In 2011, there were 37 blind or visually-impaired persons living in Gates County, and a total of 463 persons with those disabilities region-wide.

Table 14. Blind and Visually-Impaired Persons (2011)

Location	Number Blind/Visually Impaired (2011)
Gates County	37
Regional Total	463
Regional Average	66
Jones County	38
State of NC	20,972

Source: Log into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 520); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.

Special Needs Registry

Gates County Emergency Management maintains a voluntary Emergency Data Registry to help identify citizens that need special care in an emergency. When registering participants can describe their medical and special needs and indicate any special equipment or transportation they would require in the event of a community emergency. The system also has capacity to register volunteers willing to assist with disaster response (9).

CIVIC ENGAGEMENT

Electoral Process

One measure of a population's engagement in community affairs is its participation in the electoral process. Tables 15 and 16 summarize current voter registration and historical voter turnout data. Note that turnout in any particular election is at least partially determined by the voters' interest and investment in the particular issues on the ballot at that time.

Registered Voters

- According to the State Board of Elections, the proportion of the voting age population registered to vote in Gates County in 2012 was 100.3%, a phenomenon that occurs because of the source of the figures (see the footnote to the table, below).
- Approximately 62% of the registered voters in Gates County were white and 35% were Black/African American, close to the proportions those racial groups represented in the overall county population (64% and 33%, respectively) in 2010.

Table 15. Registered Voters, by Race/Ethnicity, Number and Percent (As of 12/29/12)

Location	Estimated Voting Age Population (2012)	Number and Percent of Voting Age Population Registered to Vote											
		Total		White		Black		American Indian		Hispanic		Other	
		No.[1]	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gates County	9,278	8,622	100.3	5,303	61.5	2,993	34.7	8	0.1	24	0.3	318	3.7
Regional Average	15,719	14,031	100.4	9,055	66.5	4,458	30.1	25	0.2	61	0.4	493	3.2
Jones County	8,304	7,590	100.6	4,780	63.0	2,630	34.7	13	0.2	45	0.6	167	2.2
State of NC	7,351,323	6,624,136	101.7	4,698,878	70.9	1,489,770	22.5	53,833	0.8	114,149	1.7	381,654	5.8
Source:	a	b	c	b	c	b	c	b	c	b	c	b	c

[1] The total number of registered voters reported by the NC State Board of Elections is based on the sum of registrations by party affiliation, and does not necessarily equal the sum of registrations by race. Therefore, the sum of the percentages does not equal 100%.

a - Log Into North Carolina (LINC) Database, Topic Group Government, Voters and Elections, Voting Age Population (Data Item 1714), 2012; http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

b - NC State Board of Elections, Voter Registration, Voter Statistics, Voter Registration Statistics, By County; http://www.app.sboe.state.nc.us/webapps/voter_stats/.

c - Percentages are calculated

Voter Turnout

Note that voter turnout was higher in every jurisdiction cited in elections that included a presidential race (2004 and every four-years).

Table 16. Voter Turnout in General Elections (2004-2012)

Location	% Registered Voters that Voted				
	2004	2006	2008	2010	2012
Gates County	60.00	35.00	68.28	41.83	64.36
Regional Average	58.57	35.29	68.67	44.37	65.81
Jones County	69.00	47.00	72.72	52.09	69.82
State of NC	64.00	37.00	69.93	43.75	68.42

Source: NC State Board of Elections, Elections Central, Elections Results Data (years as noted), General Elections; http://www.sboe.state.nc.us/content.aspx?id=69.

RELIGIOUS LIFE

The fabric of a community is often maintained and repaired through its citizens' participation in organized religion. Increasingly, health and human service providers have come to realize that the faith community can be an important partner in assuring the health and well-being of at least its members if not larger segments of the population.

Table 17 lists the religious bodies in Gates County. These data, gathered in January 2013, show that there is a range of options for exploring faith and religion within the county.

Table 17. Religious Bodies in Gates County (January, 2013)

Religious Bodies	Number of Congregations	Number of Adherents
African Methodist Episcopal Zion Church	5	621
Assemblies of God	3	259
Bahai	0	2
Congregational Christian Churches, Additional	1	198
Episcopal Church	2	61
Non-denominational	2	400
Southern Baptist Convention	17	4,399
United Methodist Church	6	493
TOTAL	36	6,433

Source: Association of Religious Data Archives (ARDA), US Congregational Membership: Reports, County Membership Report, Browse Reports, Counties; http://www.thearda.com/rcms2010/.

COMMUNITY SERVICES AND ORGANIZATIONS

Law Enforcement

There are no local police departments in Gates County. The Gates County Sheriff's Department serves all of Gates County with nine full-time officers, three auxiliary officers (non-paid), and office support staff. The department covers 337 square miles with approximately 14 miles of waterfront along the edge of the Chowan River (10).

Fire and Rescue Departments

The five fire departments that serve Gates County—all of them volunteer departments—are listed in Table 18.

Table 18. Fire Departments in Gates County (February, 2013)

Department Name	Location
Eure Volunteer Fire Department	Eure
Gates Volunteer Fire Department	Gates
Gatesville Volunteer Fire Department	Gatesville
Hobbsville Volunteer Fire Department	Hobbsville
Sunbury Volunteer Fire Department	Sunbury

Source: Gates County, NC. Gates County Fire Departments. http://www.gatescounty.govoffice2.com/index.asp?Type=B_BASIC&SEC=%7BD2B7E7EC-15CE-4AEB-AC66-117EA5E59711%7D.

Public Libraries

There is one public library that serves the people of Gates County, the Gates County Public Library, located in Gatesville (11).

Other Community Services and Organizations

Public services are sparse in Gates County. There is no senior center or adult daycare in the county. The Gates County Community Center serves as the recreation hub for the county, because Gates County does not have a Parks and Recreation system. All county fire departments and rescue squads are operated by volunteers. There is no public housing and there are no multi-family dwellings. There is no county wastewater system and a number of residences remain without indoor plumbing. The county does have a county-wide water distribution system (12).

Gates County Community Center

The Gates County Community Center ("the Center"), located in Gatesville, strives to provide a variety of experiences to enliven life in Gates County. It offers typical community recreation activities, such as seasonally appropriate sports teams and leagues, and fitness classes such as Zumba. As the main gathering place for the community, the Center also sponsors activities

such as book collections, blood drives, open gym evenings, and a mobile unit from the NC DMV.

Center amenities include: a ½ mile walking/fitness trail, five lighted tennis courts, a skate board park, horseshoe pits, outdoor lighted basketball courts, ping pong, an exercise/fitness room, and a playground. Center programs include a pre-school, congregate meals, meals-on-wheels, a home school support group, and Girl Scout meetings (13).

It is a nearly impossible task to create a print catalogue or listing of community resources that is current beyond its print date. Therefore, this CHA document provides instead *links* to on-line or telephone resources that provide information on community organizations and services available to Gates County residents. These particular community resource directories and guides have been included because they are sponsored and/or maintained by entities likely to remain in existence, and because they cover a range of community resources.

[Note that Health and Health Care Resources, while included in some of the directories and guides cited below, are discussed in detail in a separate section of this CHA.]

Gates County Community Resource Directories and Guides

Gates County Chamber of Commerce

Limited lists of businesses and services in Gates County.
Portal - http://www.gatescochamber.com/.

Gates County Government Website

Descriptions and contact information for county government offices and services provided by the county; links to tourism sites in the county.
Portal: http://www.gatescounty.govoffice2.com/.

Albemarle Smart Start Partnership Community Resource Guide

Searchable on-line directory of programs and services available throughout the Albemarle Region.
Currently catalogs annotated listings for 125 local and regional agencies and organizations.
Portal - http://www.albemarlessp.org/resource-guide.
Also available as a printable version at:
http://www.albemarlessp.org/sites/default/files/community-resource-guide.pdf.

North Carolina Arts Council

The NC Arts Council maintains a resource list of cultural, arts, and civic organizations that is searchable by county.
Portal: http://www.ncarts.org/county.cfm?county=Gates.

CHAPTER TWO: SOCIOECONOMIC DATA

ECONOMIC CLIMATE

Tier Designation

The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns a Tier Designation. The parameters included in the assignment include unemployment rate, median household income, population growth, and assessed property value per capita. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2, and the 20 least distressed as Tier 3. The Tier system is incorporated into various state programs, including a system of tax credits (Article 3J Tax Credits) that encourage economic activity and business investment in less prosperous areas of NC. In 2013, Gates County and Jones County, its peer, both were assigned a Tier 1 designation (14).

County Revenue Indicators

State and local governments track certain revenue indicators (e.g., building permits, sales, and receipts) in order to assess changes in the economic well-being of the community. Table 19 presents an annual summary of one of these indicators—Gross Collections of State Sales and Use Tax—for FY2005-06 through FY2011-12. This parameter can be considered an indicator of consumer confidence, since it is directly related to the consumption of goods.

- There are large differences in tax collections between Currituck and Pasquotank counties and the other five counties in the region, whose collections are all below the arithmetic average for the region.
- Gates County has the lowest gross collections in every year cited.
- It is interesting to note that gross collections did *not* fall with the start of the national recession in FY2008-09 but rather continued to rise throughout the region through FY2010-11. A decline occurred, however, in every county between FY2010-11 and FY2011-12.

Table 19. Gross Collections on State Sales and Use Taxes, Albemarle Region (FY2005-06 through FY2011-12)

Location	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12
Bertie County	2,228,604	1,620,475	1,572,678	1,628,483	3,130,749	3,540,433	3,119,783
Camden County	1,642,522	1,589,862	1,626,294	1,432,573	2,439,702	3,003,630	2,456,555
Chowan County	3,403,699	3,704,208	3,368,527	3,120,013	4,808,715	5,400,857	4,744,508
Currituck County	10,299,573	10,042,159	9,910,026	9,908,895	15,813,782	19,180,930	18,508,365
Gates County	662,141	619,181	648,341	686,390	1,197,645	1,320,173	1,187,862
Pasquotank County	16,838,820	17,568,842	16,381,292	16,178,950	19,290,971	21,161,267	19,123,519
Perquimans County	1,573,459	1,915,625	1,959,246	1,600,048	2,187,504	2,383,814	2,063,349
Regional Average	5,235,545	5,294,336	5,066,629	4,936,479	6,981,295	7,998,729	7,314,849

Source: NC Department of Revenue, Tax Publications and Reports, State Sales and Use Tax Reports by Fiscal Year, by County Summary; http://www.dornc.com/publications/fiscalyearsales.html.

Income

While revenue indicators give us some idea of economic health from the community economic development standpoint, income measures tell us about the economic well-being of individuals in the community. Among the more useful income measures are personal income, family income, and household income. For comparison purposes, personal income is calculated on a per capita basis; family income and household income are viewed as a median value for a target population. The following are definitions of each of the three income categories:

- *Per capita personal income* is the income earned per person 15 years of age or older in the reference population.
- *Median household income* pertains to the incomes of all the people 15 years of age or older living in the same household (i.e., occupying the same housing unit) regardless of relationship. For example, two roommates sharing an apartment would be a household, but not a family.
- *Median family income* pertains to the income of all the people 15 years of age or older living in the same household who are related either through marriage or bloodline. For example, in the case of a married couple who rent out a room in their house to a non-relative, the household would include all three people, but the family would be just the couple.

Table 20 summarizes recent income data for Gates County and its comparators. Among these jurisdictions:

- Per capita personal income was highest statewide and lowest in Jones County, where the figure was over $6,200 lower than the state average. Gates County had the second-highest per capita personal income.
- Median household income was highest statewide and lowest in Jones County, where the figure was over $12,500 lower than the state average. Gates County had the second-highest median household income.
- Median family income was highest in Gates County, over $2,600 higher than the NC average, and lowest in Jones County, where it was more than $7,000 below the state average.

Table 20. Income Measures

Location	Per Capita Personal Income (2011)	Per Capita Income Difference from State	Estimated Median Household Income (2011)	Median Household Income Difference from State	Estimated Median Family Income (2010)	Median Family Income Difference from State
Gates County	$19,549	-$4,406	$39,948	-$3,968	$55,559	$2,639
Regional Average	$19,135	-$4,820	$36,236	-$7,680	$55,017	$2,097
Jones County	$17,685	-$6,270	$31,152	-$12,764	$45,876	-$7,044
State of NC	$23,955	n/a	$43,916 [1]	n/a	$52,920 [1]	n/a

[1] US Census Bureau, American Fact Finder, 2010 ACS 5-Year Estimate. http://factfinder2.census.gov.
Source (except as noted): NC Department of Commerce, AccessNC, Community Demographics, County Report, County Profile, http://accessnc.commerce.state.nc.us/EDIS/page1.html.

Employment

The following definitions will be useful in understanding the data in this section.

- *Labor force*: includes all persons over the age of 16 who, during the week, are employed, unemployed or in the armed services.
- *Unemployed*: civilians who 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; also, laid-off civilians waiting to be called back to their jobs, as well as those who will be starting new jobs in the next 30 days.
- *Unemployment rate*: calculated by dividing the number of unemployed persons by the number of people in the civilian labor force.

Employment by Sector

Table 21 details the various categories of industry by sector in Gates County and its three jurisdictional comparators for 2011, showing the number employed in each sector, the percentage of all employment that that number represents, and the average annual wage for people employed in each sector.

- The industry in Gates County that employed the largest percentage of the workforce (26.83%) was Educational Services.
- Retail Trade accounted for the second largest percentage of the Gates County workforce, at 11.57%, followed in third place by Public Administration, at 10.65%. No other single sector accounted for as much as 10% of the total workforce in Gates County.
- In Jones County, the sector employing the largest percentage of the workforce (16.54%) was Health Care and Social Assistance, followed by Educational Services (14.71%), and Agriculture, Forestry, Fishing and Hunting (11.80%).
- Region-wide, the sector employing the largest percentage of the workforce (17.30%) was Health Care and Social Assistance, followed by Educational Services (14.16%) and Retail Trade (13.22%).
- Statewide, the sector employing the largest percentage of the workforce was Health Care & Social Assistance (14.33%), followed by Manufacturing (11.64%) and Retail Trade (11.46%).
- The average annual wage per employee in Gates County in 2011 was $27,653, $2,692 less than the average annual wage per employee in Jones County, $2,558 less than the average region-wide, and $19,119 less than the average statewide.

Table 21. Insured Employment and Wages by Sector
(Annual Summary, 2011)

Sector	Gates County			Jones County			Regional Average			North Carolina		
	Avg. No. Employed	% Total Employment in Sector[1]	Average Annual Wage per Employee[1]	Avg. No. Employed	% Total Employment in Sector	Average Annual Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Annual Wage per Employee	Avg. No. Employed	% Total Employment in Sector	Average Annual Wage per Employee
Agriculture, Forestry, Fishing & Hunting	93	6.60	$33,022	219	11.80	$26,845	956	2.94	$32,961	29,340	0.76	$28,752
Mining	n/a	n/a	n/a	n/a	n/a	n/a	0	n/a	n/a	3,378	0.09	$45,828
Utilities	*	n/a	*	n/a	n/a	n/a	8	0.02	n/a	13,917	0.36	$76,552
Construction	22	1.56	$28,008	121	6.52	$29,799	1,119	3.45	$29,678	194,022	5.03	$41,316
Manufacturing	120	8.52	$36,909	37	1.99	$29,606	1,326	4.08	$39,387	448,566	11.64	$52,613
Wholesale Trade	51	3.62	$32,909	42	2.26	$51,906	1,187	3.66	$37,610	167,533	4.35	$61,194
Retail Trade	163	11.57	$20,626	151	8.14	$18,851	4,292	13.22	$20,787	441,664	11.46	$24,650
Transportation & Warehousing	104	7.38	$45,660	61	3.29	$35,302	1,129	3.48	$40,975	125,395	3.25	$43,400
Information	*	n/a	*	*	n/a	*	217	0.67	$32,064	72,495	1.88	$63,833
Finance & Insurance	39	2.77	$30,111	27	1.45	$46,180	1,006	3.10	$39,722	149,135	3.87	$75,088
Real Estate & Rental & Leasing	*	n/a	*	*	n/a	*	635	1.96	$22,342	49,753	1.29	$38,476
Professional, Scientific & Technical Services	35	2.48	$22,921	65	3.50	$41,844	1,062	3.27	$43,178	180,237	4.68	$66,951
Management of Companies & Enterprises	*	n/a	*	n/a	n/a	n/a	53	0.16	$23,125	73,019	1.89	$88,763
Administrative & Waste Services	16	1.14	$18,547	162	8.73	$25,843	1,180	3.63	$29,725	212,177	5.50	$30,258
Educational Services	378	26.83	$32,091	273	14.71	$32,853	4,597	14.16	$34,771	382,110	9.91	$39,787
Health Care & Social Assistance	130	9.23	$27,240	307	16.54	$39,793	5,619	17.30	$29,459	552,337	14.33	$42,811
Arts, Entertainment & Recreation	*	n/a	*	23	1.24	$12,692	341	1.05	$18,092	68,749	1.78	$28,474
Accommodation & Food Services	55	3.90	$9,312	94	5.06	$12,771	2,866	8.82	$12,263	346,059	8.98	$14,877
Other Services	53	3.76	$20,313	58	3.13	$19,987	1,136	3.50	$23,337	241,703	6.27	$43,641
Public Administration	150	10.65	$29,478	216	11.64	$30,903	3,747	11.54	$34,317	94,676	2.46	$28,182
Unclassified	n/a	n/a	n/a	*	n/a	*	0	0.00	n/a	9,010	0.23	n/a
TOTAL/AVERAGE ALL SECTORS	1,409	100.00	$27,653	1,856	100.00	$30,345	32,476	100.00	$30,211	3,855,275	100.00	$46,772

[1] Percent Total Employment in Sector values were calculated by dividing the Avg. Number of Employed within a sector by the total employees in All Sectors.

* Disclosure suppressed

Source: NC Employment Security Commission, Labor Market Information, Industry Information. Employment and Wages Data by Industry, 2011, Annual Summary. By State or by County; http://eslmi23.esc.state.nc.us/ew/EWYear.asp?Report=1. (Search tool inputs: Ownership type = aggregate of all types; Industry NAICS level = Sector (2 digit); both Employment and Wages.)

Largest Employers

Table 22 lists the largest 25 employers in Gates County as of the end of the 3rd Quarter, 2011.

- Only one employer listed—the Gates County Board of Education—employed more than 250 people.
- The majority of the businesses on the list had fewer than 50 employees.

Table 22. Largest 25 Employers in Gates County (Third Quarter, 2011)

Rank	Employer	Industry	No. Employed
1	Gates County Board Of Education	Education & Health Services	250-499
2	Gates County	Public Administration	50-99
3	Ashton Lewis Lumber Co	Manufacturing	50-99
4	Down East Health & Rehab Center	Education & Health Services	50-99
5	Family Foods Of Gatesville Inc	Trade, Transportation & Utilities	50-99
6	Pkl Services Inc	Trade, Transportation & Utilities	Below 50
7	Gates Custom Milling Inc	Manufacturing	Below 50
8	Harrell Medical Transport Inc	Education & Health Services	Below 50
9	Doris & Rogers Kitchen	Leisure & Hospitality	Below 50
10	US Postal Service	Trade, Transportation & Utilities	Below 50
11	NC Department Of Transportation	Public Administration	Below 50
12	Midway Chevrolet	Trade, Transportation & Utilities	Below 50
13	Gates County Animal Clinic Pa	Professional & Business Services	Below 50
14	Miller Funeral Home	Other Services	Below 50
15	Sarem Farms Inc	Natural Resources & Mining	Below 50
16	Tarheel Bar B Que Inc	Leisure & Hospitality	Below 50
17	Alex M Sanchez	Natural Resources & Mining	Below 50
18	Kellogg Morgan Agency Inc	Financial Activities	Below 50
19	Dollar General	Trade, Transportation & Utilities	Below 50
20	East Coast Equipment	Trade, Transportation & Utilities	Below 50
21	Family Foods Convenience	Trade, Transportation & Utilities	Below 50
22	A W Brinkley Hardware Inc	Trade, Transportation & Utilities	Below 50
23	State of NC Dept of Environment And	Public Administration	Below 50
24	Dixie Auto Parts	Trade, Transportation & Utilities	Below 50
25	Crossroads Fuel Service, Inc	Trade, Transportation & Utilities	Below 50

Source: NC Department of Commerce, Economic Intelligence Development System (EDIS), Business Data, Top Employers, by County; http://accessnc.commerce.state.nc.us/EDIS/business.html.

Travel for Employment

Data gathered by the US Census Bureau on how many resident workers travel outside the county for employment can help demonstrate whether or not a county provides adequate employment opportunities for its own citizens. The economic impact of out-of-state employment is that those workers may pay taxes and spend part of their income out of state. Table 23 summarizes 2007-2011 estimated travel for employment data for Gates County and its comparator jurisdictions.

- A very large proportion—72%—of Gates County resident workers were employed outside the county.
- Of the 3,839 Gates County resident workers who left the county for work, 2,580 (48.3%) worked out-of-state and 1,259 (23.6%) worked elsewhere in NC.
- In Jones County, 33% of resident workers worked in-county; all but 1% of the remaining workers worked elsewhere in NC.
- Region-wide, only 45% of resident workers worked in-county; approximately 24% worked out-of-state.
- Statewide, roughly 72% of resident workers worked in their county of residence; 25% worked in another county, and less than 3% worked out-of-state.

Table 23. Place of Work for Resident Workers Over Age 16 (Five-Year Estimate, 2007-2011)

Location	Number and Percent of Residents										
	Total # Workers Over 16	# Working in NC	% Working in NC	# Working in County	% Working in County	# 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 County	5,338	2,758	51.7	1,499	28.1	1,259	23.6	2,580	48.3	3,839	71.9
Regional Average	8,155	6,265	75.6	4,236	44.8	2,029	30.8	1,890	24.4	3,919	55.2
Jones County	4,198	4,153	98.9	1,377	32.8	2,776	66.1	45	1.1	2,821	67.2
State of NC	4,221,511	4,115,156	97.5	3,035,545	71.9	1,065,215	25.2	105,186	2.5	1170401	27.7

Note: percentages are calculated and may include some rounding error.
Source: US Census Bureau, American Fact Finder, 2011 ACS 5-Year Estimate, Table B08007: Sex of Workers by Place of Work, State and County Level; http://factfinder.census.gov.

Modes of Transportation to Work

Besides serving as an indicator of environmentalism, the mode of transportation workers use to get to their places of employment can also point to the relative convenience of local workplaces and the extent of the local public transportation system. Table 24 compares data on modes of transportation to work from the 2000 US Census and a 2011 Census Bureau estimate.

- Very few Gates County workers used public transportation to get to work. Use of public transportation for getting to work was not common in any of the jurisdictions being compared.
- The number of Gates County workers who carpooled increased three-fold between 2000 and 2007-2011. Carpooling decreased in Jones County and statewide over the same period, but increased slightly region-wide.
- The number of workers who walked to work increased in Jones County and statewide.
- The number of Gates County workers who worked at home decreased 36% between 2000 and 2007-2011, but working-at-home increased significantly in Jones County, NC, and region-wide.

Table 24. Modes of Transportation to Work (2000 and 2007-2011 Five -Year Estimate)

Location	Number of Persons									
	Drove Alone		Carpooled		Used Public Transportation		Walked		Worked at Home	
	2000	2007-2011	2000	2007-2011	2000	2007-2011	2000	2007-2011	2000	2007-2011
Gates County	3,287	4,353	739	2,204	0	24	89	53	103	66
Regional Average	5,233	6,065	1,185	1,249	49	36	166	135	164	220
Jones County	3,327	3,103	740	710	10	26	49	115	79	147
State of NC	3,046,666	3,405,376	538,264	462,747	34,803	44,920	74,147	76,424	102,951	177,145
Source:	a	b	a	b	a	b	a	b	a	b

a - US Census Bureau, American Fact Finder, 2000 US Census Data Sets, Summary File 3, Detailed Tables, Means of Transportation to Work for Workers 16 Years and Over; http://factfinder.census.gov.
b - US Census Bureau, American Fact Finder, 2011 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder.census.gov.

Public Transportation in Gates County

Gates County Inter-Regional Transportation System (GITS) is the coordinated public transportation program for the County of Gates. GITS provides transportation for any county residents to various appointments. GITS utilizes subscription and demand response trips to service the rural general public.

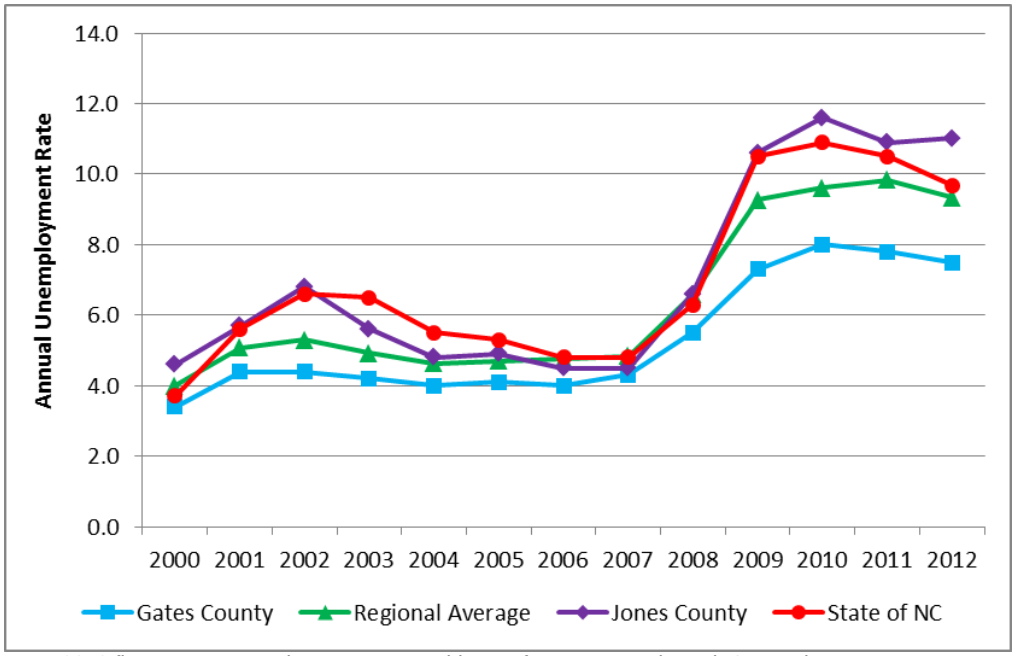
The primary areas requested are Ahoskie (Hertford County), Elizabeth City (Pasquotank County), Edenton (Chowan County), and Suffolk, Smithfield, and Norfolk, Virginia. In addition to subscription service travel to several destinations in northeastern NC (Ahoskie, Elizabeth City, Edenton, and Tyner) and southeastern VA (Suffolk, Smithfield, Norfolk, Portsmouth, and Hampton), GITS offers trips to Vidant Medical Center and other locations in Greenville, NC once a week, and to Duke University Hospital in Durham, NC as needed (15).

Unemployment

Figure 6 plots the unemployment rate in Gates County and its jurisdictional comparators.

- Beginning with 2008 data, the unemployment rate began to rise sharply in all four jurisdictions. Unemployment began to decrease in Gates County, Jones County and NC in 2011. Region-wide the unemployment rate did not begin to decrease until 2012.
- Throughout the period cited in the graph the unemployment rate in Gates County was the lowest among the four jurisdictions.

Figure 6. Annual Unemployment Rate (2000-2012)



Note: 2012 figures represent the average monthly rate from January through September.
Source: NC Employment Security Commission, Labor Market Information, Workforce Information, Employed, Unemployed and Unemployment Rates, Labor Force Statistics, Single Areas for All Years; http://eslmi03.esc.state.nc.us/ThematicLAUS/clfasp/startCLFSAAY.asp.

Business Closings and Layoffs

In the past, the NC Employment Security Commission monitored business closings and layoffs across the state, by county. However, the ESC website recently posted the following announcement:

> *Due to the federal sequester legislation, the Mass Layoff Statistics program, funded by the US Department of Labor, has been eliminated. In addition, North Carolina's Department of Commerce will no longer support the collection and publication of Announced Business Closings and Layoffs effective May 1, 2013* (16).

The agency also has removed access to previously existing data on its website, so it is not possible to present business closings and layoffs for Gates County in this report.

Poverty

The poverty rate is the percent of the population (both individuals and families) whose money income (which includes job earnings, unemployment compensation, social security income, public assistance, pension/retirement, royalties, child support, etc.) is below a federally established threshold; this is the "100%-level" figure.

Table 25 shows the decadal annual poverty rate from 1970-2000 and the estimated poverty rate for two five year periods: 2006-2010 and 2007-2011. The data in this table describe an overall rate, representing the entire population in each geographic entity. As subsequent data will show, poverty may have strong racial and age components that are not discernible in these numbers.

- In Gates County the poverty rate decreased in the decades from 1970 through 1990, before rising for the next two periods and then falling again in 2007-2011. Beginning in 2000 and continuing through 2007-2011 the Gates County poverty rate was the highest among the four jurisdictions.
- Region-wide the poverty rate fell each decade from 1970 through 2000 and again in 2006-2010. In 2007-2011 the rate rose again, by 7%.
- The poverty rate in Jones County fell from one period to the next throughout the span of years cited in the table.
- Statewide, the poverty rate fell every decade through 2000 before rising in both 2006-2010 and 2007-2011.

Table 25. Annual Poverty Rate
(1970-2000; 2006-2010 and 2007-2011 Five-Year Estimates)

Location	Percent of All People in Poverty					
	1970	1980	1990	2000	2006-2010	2007-2011
Gates County	32.1	19.7	15.7	17.0	20.5	18.2
Regional Average	31.8	21.5	18.1	16.5	16.4	17.5
Jones County	37.7	21.8	20.2	16.9	16.8	14.9
State of NC	20.3	14.8	13.0	12.3	15.5	16.1
Source:	a	a	a	a	b	c

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Item 6094); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.
b - US Census Bureau, American Fact Finder, American Community Survey, 2010 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.
c - US Census Bureau, American Fact Finder, American Community Survey, 2011 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

Table 26 presents poverty data stratified by broad racial group (white/black). It is clear from these data that Blacks/African Americans have much higher poverty rates than whites.

- Across all time periods and in all jurisdictions cited in the table, the poverty rate among blacks was from 1.7 to 3.3 times the poverty rate among whites.
- The largest average racial disparity in poverty was the ARHS regional average, where the poverty rate for blacks was, over the period cited, three times the rate for whites.

Table 26. Persons in Poverty by Race
(2000; 2006-2010 and 2007-2011 Five-Year Estimates)

Location	2000			2006-2010			2007-2011		
	Total % in Poverty	% White in Poverty	% Black in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty
Gates County	17.0	10.8	27.0	20.5	14.1	33.0	18.2	12.0	30.1
Regional Average	16.5	8.9	29.7	16.4	9.9	29.2	17.5	10.7	30.6
Jones County	16.9	13.8	22.8	16.8	11.7	24.8	14.9	10.5	22.7
State of NC	12.3	8.5	22.9	15.5	11.2	25.6	16.1	11.8	26.1
	a	a	a	b	b	b	c	c	c

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6096, 6098); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.
b - US Census Bureau, American Fact Finder, American Community Survey, 2010 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.
c - US Census Bureau, American Fact Finder, American Community Survey, 2011 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

Table 27 presents poverty data stratified by age group. From these data it is apparent that children suffer disproportionately from poverty.

- In all four jurisdictions in every time period cited in the table, the poverty rate for children under the age of 18 exceeded the overall poverty rate by from 6% to 68%, with the greatest average variance—47%—occurring in the ARHS region. The remaining average variances were 43% in Gates County, 29% in Jones County, and 35% in NC.

Table 27. Persons in Poverty by Age
(2000; 2006-2010 and 2007-11 Five-Year Estimates)

Location	2000			2006-2010			2007-2011		
	Total % in Poverty	% Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Adults 65 or Older in Poverty	Total % in Poverty	% Children Under 18 in Poverty	% Adults 65 or Older in Poverty
Gates County	17.0	17.9	26.2	20.5	32.2	20.0	18.2	30.6	16.1
Regional Average	16.5	22.2	19.2	16.4	24.3	12.7	17.5	27.7	12.6
Jones County	16.9	22.3	16.7	16.8	21.4	9.4	14.9	18.9	10.6
State of NC	12.3	15.7	13.2	15.5	21.3	10.7	16.1	22.6	10.3
Source:	a	a	a	b	b	b	c	c	c

a - Log Into North Carolina (LINC) Database, Topic Group Employment and Income (Data Items 6094, 6100, 6102, 6104); http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show.
b - US Census Bureau, American Fact Finder, American Community Survey, 2010 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.
c - US Census Bureau, American Fact Finder, American Community Survey, 2011 American Community Survey 5-Year Estimates, Data Profiles, County, North Carolina (Counties as listed); http://factfinder2.census.gov.

Children Receiving Free or Reduced-price School Lunch

Other data corroborate the impression that children, especially the very young, bear a disproportionate burden of poverty, and that their burden is increasing. One measure of poverty among children is the number and/or percent of school-age children who are eligible for and receive free or reduced-price school lunch.

Students have to be eligible to receive meals; not everyone who is eligible will choose to enroll in the program and receive meals. To be eligible for *free* lunch under the National School Lunch Act students must live in households earning at or below 130 percent of the Federal poverty guidelines. To be eligible for *reduced-price* lunch students must live in households earning at or below 185 percent of the Federal poverty guidelines.

Table 28 shows the percent of students *enrolled* to receive free or reduced-price lunch. To help readers grasp the numbers behind the percentages in all jurisdictions, Table 30 shows the number of students *eligible for* free or reduced price lunch in several recent school years (SYs).

- The percentage of students in Gates County enrolled for free or reduced-price school lunch increased each school year after FY2007-08.
- In the other jurisdictions the percentages of students enrolled in the program also were somewhat higher after SY2007-08.

Table 28. Percent of Students Enrolled for Free or Reduced-price School Lunch (SY2003-04 through SY2010-11)

Location	Percent Students Enrolled for Free or Reduced-Price Lunch							
	SY2003-04	SY2004-05	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11
Gates County	52.4	54.4	56.6	46.7	44.2	48.0	51.9	52.4
Regional Average	54.8	54.2	54.7	53.0	52.0	52.4	55.9	54.8
Jones County	85.1	83.8	78.1	76.5	76.4	78.9	84.4	82.8
State of NC	48.2	47.7	48.4	48.5	48.4	49.9	53.7	53.9

Source: Annie E. Casey Foundation, Kids Count Data Center, Data by State, North Carolina, Profiles (state and counties as noted), Other Education, Percent of Students Enrolled in Free and Reduced Lunch; http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=NC.

While the table above presented the *percentage* of students *enrolled* in free and reduced-price lunch programs, Table 29 presents data on the *number* of students *eligible* for free and reduced-price lunch.

- Since SY2007-08 (SY2009-10 in Gates County), the number of students eligible for the free- or reduced price school lunch program increased annually in Gates County, region-wide and statewide.
- In SY2010-11, the number of eligible students statewide was at an eight-year high and 63% higher than the number eligible in SY2007-08.

Table 29. Students Eligible for Free or Reduced-price School Lunch (SY2003-04 through SY2010-11)

Location	No. Students ELIGIBLE for Free or Reduced-Price Lunch							
	SY2003-04	SY2004-05	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11
Gates County	1,003	1,055	1,067	905	848	841	930	975
Regional Average	1,580	1,614	1,394	1,503	1,326	1,408	1,565	1,566
Jones County	1,156	1,135	1,071	920	927	–	974	936
State of NC	605,253	624,500	603,316	624,349	456,210	493,946	720,798	744,757

Source US Department of Education, Institute of Education Sciences (IES), National Center for Educational Statistics, Common Core of Data, Build a Table Function, County Data (or State Data), Students in Special Programs, Total Free and Reduced Lunch Students; http://nces.ed.gov/ccd/bat/.

County Economic Service Utilization

The Gates County Department of Social Services (DSS) manages a number of programs that provide assistance to low-income people.

The *Food and Nutrition Services* program (formerly known as Food Stamps) helps eligible households buy the food they need for a nutritionally adequate diet. Benefits may be used to purchase most foods at participating stores; they may not be used to purchase tobacco, pet food, paper products, soap products, or alcoholic beverages (17).

WorkFirst is North Carolina's Temporary Assistance for Needy Families (TANF) program, through which parents can get short-term training and other services, including cash supports, to help them become employed and self-sufficient. Most families have two years to move off WorkFirst Family Assistance (18).

Table 30 presents data on Food and Nutrition Services provided by Gates County DSS in FY2010-11 through FY2011-12 and FY2012-13 to date.

- If caseload is a reflection of demand, demand for FNS services increased from FY2010 11 to FY2011-12, and remained higher in FY2012-13 than in FY2010-11.

Table 30. Food and Nutrition Services (FNS) Provided by Gates County Department of Social Services (FY2010-11, FY2011-12, and FY2012-13 to date)

Fiscal Year	Applications Taken	Applications Processed	Average Caseload
2010-11	661	652	793
2011-12	1,394	1,372	935
2012-13 (July-October)	183	183	871

Source: Geoffrey C. Marett, Director, Gates County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 5, 2012.

Table 31 presents data on the Gates County WorkFirst program over the same period.

Table 31. WorkFirst Family Assistance Provided by Gates County Department of Social Services (FY2010-11, FY2011-12, and FY2012-13 to date)

Fiscal Year	Applications Taken	Avg. Monthly WFFA Child Only Cases	Avg. Monthly WFFA Employment Services	WF Participation Rate Yearly Avg.
2010-11	60	n/a	6.0	94%
2011-12	84	24	9.6	98%
2012-13 (July-October)	17	26	9.5	84%

Source: Geoffrey C. Marett, Director, Gates County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 5, 2012.

Table 32 summarizes DSS activity regarding ancillary services that help agency clients in crisis.

Table 32. Ancillary Services Provided by Gates County Department of Social Services (FY2010-11, FY2011-12, and FY2012-13 to date)

Fiscal Year	Crisis Intervention Program Applications		TANF Emergency Assistance Applications	
	Approved	Denied	Approved	Denied
2010-11	214	145	21	12
2011-12	149	63	25	13
2012-13 (July-October)	72	44	3	6

Source: Geoffrey C. Marett, Director, Gates County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 5, 2012.

HOUSING

Table 33 presents US Census Bureau data on housing by type.

- There was an average 11% vacant housing in Gates County over both time periods cited, lower than the regional average (17%) and state average (12%).
- Of the occupied housing units in Gates County, approximately 82% were owner occupied; 18% were renter occupied, the lowest such figure among the comparators. A recent Gates County planning document indicated that there were no multi-family dwellings in the county, so a lack of apartment rentals likely is influencing these figures (12).
- The highest proportion of mobile homes in both periods (~33%) was in Gates County.
- In 2000 the median monthly mortgage cost was highest statewide and second highest in Gates County; in 2006-2010 the highest median monthly mortgage cost was the regional average. The lowest mortgage cost in both periods was in Jones County.
- Median monthly mortgage cost in Gates County increased by 28% between 2000 and 2006-2010.
- In 2000 and 2006-2010 the highest median gross monthly cost for rent was the state average.
- Median gross monthly rent cost in Gates County increased by 50% between 2000 and 2006-2010.

Table 33. Housing by Type
(2000 and 2006-2010 Five-Year Estimate)

Location	2000												
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Median Monthly Housing Cost, Owner with Mortgage	Renter Occupied Units		Median Gross Monthly Rent	Mobile Home Units	
	No.	No.	%	No.	%	No.	%	$	No.	%	$	No.	%
Gates County	4,389	488	11.1	3,901	88.9	3,202	82.1	$855	699	17.9	$448	1,533	34.9
Regional Average	7,696	1,362	16.8	6,334	83.2	4,715	76.9	$854	1,619	23.1	$464	1,781	24.3
Jones County	4,679	618	13.2	4,061	86.8	3,239	79.8	$818	822	20.2	$396	1,634	34.9
State of NC	3,523,944	391,931	11.1	3,132,013	88.9	2,172,355	69.4	$985	959,658	30.6	$548	577,323	16.4
Source:	a	a	a	a	a	a	a	b	a	a	c	d	d

Location	2006-2010 Estimate												
	Total Housing Units	Vacant Housing Units		Occupied Housing Units		Owner Occupied Units		Median Monthly Housing Cost, Homes With Mortgage	Renter Occupied Units		Median Gross Monthly Rent	Mobile Home Units	
	No.	No.	%	No.	%	No.	%	$	No.	%	$	No.	%
Gates County	5,208	543	10.4	4,665	89.6	3,806	81.6	$1,097	859	18.4	$673	1,563	31.0
Regional Average	9,242	1,786	17.5	7,456	82.5	5,467	75.3	$1,258	1,989	24.7	$714	1,972	22.9
Jones County	4,838	671	13.9	4,167	86.1	3,124	75.0	$1,051	1,043	25.0	$570	1,374	28.7
State of NC	4,327,528	582,373	13.5	3,745,155	86.5	2,497,900	66.7	$1,244	1,247,255	33.3	$718	605,418	14.3
Source:	e	e	e	e	e	e	e	f	e	e	f	f	f

a - US Census Bureau, American FactFinder, 2000 US Census, Summary File 1 (SF-1), 2000 Demographic Profile Data, DP-1, Profile of General Population and Housing Characteristics: 2000 (geographies as listed); http://factfinder2.census.gov.
b - US Census Bureau, American FactFinder, 2000 US Census, Summary File 3 (SF-3), 100-Percent Data, Table H091, Median Selected Monthly Owner Costs (Dollars) for Specified Owner-Occupied Housing Units by Mortgage Status (geographies as listed); http://www.factfinder2.census/gov.
c - Log Into North Carolina, LINC Services; State and Counties: North Carolina and selected counties; Topic Group: Population and Housing; Housing Characteristics (Data Field V6115), 2000; http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show
d - US Census Bureau, American FactFinder, 2000 US Census, Summary File 3 (SF-3), Table QTH4, Physical Housing Characteristics - All Housing Units: 2000 (geographies as listed); http://www.factfinder2.census/gov.
e - US Census Bureau, American FactFinder, 2010 US Census, Summary File 1 (SF-1), 2010 Demographic Profile Data, DP-1, Profile of General Population and Housing Characteristics: 2010 (geographies as listed); http://factfinder2.census.gov.
f - US Census Bureau, American Fact Finder, 2010 ACS 5-Year Estimates, Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.

Table 34 presents data on housing costs as a percent of household income.

- In both time periods cited, the percentage of *renter-occupied* housing units costing more than 30% of household income was highest in the Albemarle region, and the percentage increased 2% from one period to the next.
- In both time periods the percentage of *mortgaged* housing units costing more than 30% of household income was highest region-wide, and the percentage increased 2% from one period to the next.
- In Gates County the percentage of renter-occupied units costing more than 30% of household income *decreased* 2%, and the comparable percentage of mortgaged units *increased* 2% from one period to the next.

Table 34. Estimated Housing Cost as Percent of Household Income (2005-09 and 2006-2010 Five-Year Estimates)

Location	Renter Occupied Units						Mortgaged Housing Units					
	2005-2009			2006-2010			2005-2009			2006-2010		
	Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing		Total Units	Units Spending >30% Household Income on Housing	
		#	%		#	%		#	%		#	%
Gates County	750	217	28.9	811	229	28.2	2,011	623	31.0	2,166	684	31.6
Regional Average	1,876	844	45.0	1,836	840	45.8	3,303	1,299	39.3	3,397	1,360	40.0
Jones County	1,146	369	32.2	1,140	311	27.3	1,445	364	25.2	1,512	429	28.4
State of NC	1,131,480	486,934	43.0	1,157,690	513,340	44.3	1,634,410	513,340	31.4	1,688,790	535,120	31.7
Source	1	1	3	2	2	3	1	1	3	2	2	3

1 - US Census Bureau, American FactFinder. 2009 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.
2 - US Census Bureau, American FactFinder. 2010 ACS 5-Year Estimates. Table DP04: Selected Housing Characteristics (geographies as listed). http://factfinder2.census.gov.
3 – Percentages are calculated.

Affordable Housing

According to information from the NC Rural Economic Development Center based on 2006-2010 US Census data estimates, 33% of housing in Gates County was classified as "unaffordable", compared to 26% in Jones County, and averages of 35% region-wide and 32% statewide (19). This data is at least partially reflective of the population living in households that pay more than 30% of the household income for housing costs.

The US Department of Housing and Urban Development (HUD) maintains a system for tracking "affordable" housing for its low-income clients, to whom it provides housing subsidies. HUD services are delivered through Public and Indian Housing Authority (PHA) offices throughout NC.

There is no PHA office located in Gates County to assist residents in accessing HUD services. The nearest offices are in Edenton (Chowan County), Ahoskie (Hertford County), Hertford (Perquimans County) and Elizabeth City (Pasquotank County) (20).

At the time this report was developed, there were *no* HUD-subsidized single-family homes available in Gates County (21). A search on the HUD affordable apartment website identified one low-rent apartment facility: an ARC facility in Eure for developmentally disabled persons (22).

The US Department of Agriculture (USDA) catalogues information about rental properties available in rural areas. The agency's Multi-Family Housing (MFH) Rental website provides an online guide to Government assisted rental projects. At the time this report was developed, the MFH website listed no qualifying rental properties in Gates County (23).

Homelessness

The NC Coalition to End Homelessness coordinates a statewide *Point-in-Time Count*, an unduplicated count of homeless people, held on one night in the last week of January each year. It is not clear which of the counties in the Albemarle region do or do not participate in this count, but results are available only for Pasquotank County, which reported 43 total homeless persons in 2011 and 36 in 2012. (24).

HOUSEHOLDS

Table 35 describes the number of persons living in households in the four comparator jurisdictions.

- The average number of persons per household in Gates County—2.60—was the highest among the jurisdictions being compared.
- The percent of one-person households in Gates County—23.2%—was the lowest among all four jurisdictions.
- The percent of one-person households where the resident was age 65 or older in Gates County—43.8%—was second-highest among the jurisdictions being compared.

Table 35. Household Characteristics (2010 US Census)

Location	Total No. Households[1]	Persons per Household	No. Households One-person	% Households One-person	No. Households One-person and Age ≥65	% Households One-person and Age ≥65
Gates County	4,665	2.60	1,083	23.2	474	43.8
Regional Average	7,456	2.52	1,886	24.8	805	43.1
Jones County	4,167	2.41	1,131	27.1	498	44.0
State of NC	3,745,155	2.48	1,011,348	27.0	341,864	33.8

1 - A household includes all the persons who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated persons who share living arrangements. (People not living in households are classified as living in group quarters.
Source: US Census Bureau, American FactFinder, 2010 Census, 2010 Demographic Profile Data, Summary File DP-1, Profile of General Population and Housing Characteristics (geographies as noted); http://factfinder2.census.gov.

Single-Parent Families

Data in Table 36 describe some characteristics of single-parent families. In order to interpret the table please note the following definitions provided by the data source:

Family: A family consists of two or more persons, including the householder, who are related by birth, marriage, or adoption, and who live together as one household; all such persons are considered as members of one family. (Persons not in families and not inmates of institutions are classified as unrelated individuals.)

Families with Own Children: Families with their own children under age 18. An "own child" is a never-married child under 18 years who is a son, daughter, stepchild, or adopted child of the householder.

Female Householder Families with Children: Families with a female householder, with no husband present, and with their own children under 18.

Male Householder Families with Children: Families with a male householder, no wife present, and with their own children under 18.

Children Living with Both Parents: Children under 18 who live with both parents; own children of householders living in households that are classified as married-couple family households.

Children Not Living With Both Parents: Children under 18 who do not live with both parents. Includes children under 18 living: in a family with a male householder and no wife present, in a family with a female householder and no husband present, with other relatives, with nonrelatives, in group quarters, or, in some cases, living as householders themselves or as a spouse of a householder.

- In Gates County the percent of children under the age of 18 *not* living with both parents increased by 19% (from 35.6% to 42.2%) between 2000 and 2010. Statewide the increase was 14% (from 35.5% to 40.4%).
- In Gates County the percent of *female* family householders with children under the age of 18 decreased 20% (from 20.1% to 18.2%) between 2000 and 2010. Over the same period, the percent of *male* family householders with children under the age of 18 decreased 2% (from 6.4% to 6.3%). Statewide between 2000 and 2010 there was a decrease of 4% in the percent of female family householders with minor children (from 22.8% to 22.0%), and a 5% increase in the percent of male family householders with minor children (from, 6.1% to 6.4%).

Table 36. Single-Parent Families
(2000 and 2010)

Location	2000										
	Total Families	Total Families with Own Children	Female Family Householders with Children < 18		Male Family Householders with Children < 18		Total Children <18	Children <18 Living with Both Parents		Children <18 Not Living with Both Parents	
	Number	Number	Number	%	Number	%	Number	Number	%	Number	%
Gates County	2,933	1,335	268	20.1	86	6.4	2,803	1,804	64.4	999	35.6
Regional Average	4,580	2,016	527	24.0	123	6.2	4,147	2,441	61.1	1,706	38.9
Jones County	2,938	1,288	340	26.4	94	7.3	2,665	1,570	58.9	1,095	41.1
State of NC	2,158,869	995,648	227,351	22.8	60,791	6.1	1,964,047	1,266,526	64.5	697,521	35.5
Source:	a	a	a	b	a	b	b	a	b	a	b

Location	2010										
	Total Families	Total Families with Own Children	Female Family Householders with Children < 18		Male Family Householders with Children <18		Total Children <18	Children <18 Living with Both Parents		Children < 18 Not Living with Both Parents	
	Number	Number	Number	%	Number	%	Number	Number	%	Number	%
Gates County	3,398	1,680	306	18.2	106	6.3	2,903	1,678	57.8	1,225	42.2
Regional Average	5,258	2,589	570	20.8	160	6.1	4,396	2,418	55.7	1,978	44.3
Jones County	2,846	1,319	264	20.0	88	6.7	2,208	1,153	52.2	1,055	47.8
State of NC	2,499,174	1,331,533	292,504	22.0	85,199	6.4	2,281,635	1,359,045	59.6	922,590	40.4
Source:	a	a	a	b	a	b	b	a	b	a	b

a - Log Into North Carolina (LINC) Database, Topic Group Population and Housing (Data Items 6044, 6046, 6048, 6049, 6050, 6051), 2000 and 2010; http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.
b - Figures are calculated

Grandparents Responsible for Minor Children

Table 37 presents data on grandparents with responsibility for minor children. Data on grandparents as primary caregivers were derived from US Census Bureau American Community Survey questions. Data were collected on whether a grandchild lives with a grandparent in the household, whether the grandparent has responsibility for the basic needs of the grandchild, and the duration of that responsibility. Responsibility of basic needs determines if the grandparent is financially responsible for food, shelter, clothing, day care, etc., for any or

all grandchildren living in the household. Percent is derived with the number of grandparents responsible for grandchildren (under 18 years) as the numerator and number of grandparents living with own grandchildren (under 18 years) as the denominator.

- In Gates County for the period cited, an estimated 33.6% of grandparents living with their minor grandchildren were also responsible for their care.
- Among the jurisdictions being compared, the estimated percentage of grandparents living with and responsible for their minor grandchildren was highest in Jones County; the Gates County figure was the lowest among the comparator jurisdictions.

Table 37. Grandparents with Responsibility for Minor Children (Five-Year Estimate, 2006-2010)

Location	# Grandparents Living with Own Grandchildren (<18 Years)	Grandparent Responsible for Grandchildren (under 18 years)*	
		Est. #	%
Gates County	301	101	33.6
Regional Average	450	225	47.5
Jones County	328	171	52.1
State of NC	187,626	95,027	50.6

Source: US Census Bureau, American FactFinder, 2006-2010 American Community Survey 5-Year Estimates. Selected Social Characteristics in the United States (DP02); http://factfinder2.census.gov.

CHILD CARE

Child Care Facilities

The NC Division of Child Development is the state agency charged with overseeing the child care industry in the state, including the regulation of child day care programs. The Division licenses child care facilities that keep more than two unrelated children for more than four hours a day. In NC, regulated child day care facilities are divided into two categories—Child Care Centers and Family Child Care Homes—with the categories delineated on the basis of enrollment. A *child care center* is a larger program providing care for three or more children, but not in a residential setting. The number of children in care is based upon the size of individual classrooms and having sufficient staff, equipment and materials. A *family child care home* is a smaller program offered in the provider's residence where three to five preschool children are in care. A family child care home may also provide care for three school-age children (25).

In 1999, the NC Division of Child Development began issuing "star rated" licenses to all eligible Child Care Centers and Family Child Care Homes. NC's Star Rated License System gave from one to five stars to child care programs based on how well they were doing in providing quality child care. A rating of one star meant that a child care program met the state's minimum licensing standards for child care. Programs that chose to voluntarily meet higher standards could apply for a two to five star license. (Note: Religious-sponsored child care programs could opt to continue to operate with a notice of compliance and not receive a star rating.)

Three areas of child care provider performance were assessed in the star system: program standards, staff education, and compliance history. Each area had a range of one through five points. The star rating was based on the total points earned for all three areas.

Then, in 2005, the way facilities were evaluated was changed in order to give parents better information about a program's quality. The new rules made a 75% "compliance history" a minimum standard for any licensed facility. Because it is now a minimum requirement, all programs earn their star rating based only on the two components that give parents the best indication of quality: staff education and program standards. In addition, programs having a two component license can earn a "quality point" for enhanced standards in staff education and program standards.

According to data in Table 38:

- Of the eight licensed child care centers in Gates County at the time of this report, three (38%) were five-star facilities and two (25%) were four-star facilities.
- Of the nine licensed family child care homes in Gates County, there was one five-star facility and three (33%) four-star facilities.

Table 38. NC-Licensed Child Care Facilities in Gates County (November, 2012)

Type of Facility	Number
Child Care Centers (8)	
Five-star	3
Four-star	2
Three-star	1
Two-star	1
One-star	0
GS 110-106 (Church-affiliated)	1
Temporary	0
Family Child Care Homes (9)	
Five-star	1
Four-star	3
Three-star	1
Two-star	2
One-star	2

Source: NC Department of Health and Human Services, Division of Child Development, Child Care Facility Search Site; http://ncchildcaresearch.dhhs.state.nc.us/search.asp

Table 39 presents total enrollment summaries for child care facilities.

Table 39. Children Enrolled in NC-Regulated Child Care (2008-2011)

Location	No. Children (0-5) Enrolled in Child Care Centers				No. Children (0-12) Enrolled in Family Care Homes			
	2008	2009	2010	2011	2008	2009	2010	2011
Gates County	117	101	119	124	33	37	41	31
Regional Average	347	355	351	428	45	45	45	41
Jones County	125	131	146	166	6	3	2	0
State of NC	172,717	168,953	169,852	194,632	15,354	14,936	14,384	13,321

Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators; http://datacenter.kidscount.org/data/bystate/StateLanding.aspx?state=NC.

The WorkFirst Employment Program discussed previously includes child care subsidies for families that qualify. Table 40 presents the number of children in each jurisdiction that received WorkFirst Working Connections Child Care Subsidies.

- In each jurisdiction the figures were their lowest of the entire period in 2010.

Table 40. Number of Children Receiving WorkFirst Child Care Subsidy (2007-2010)

Location	2007	2008	2009	2010
Gates County	55	45	59	44
Regional Average	110	118	91	77
Jones County	42	38	42	38
State of NC	41,075	43,124	42,944	39,341

Note: the number of children is based on the number of children under 18 receiving Work First benefits for the month of December for a particular year.
Source: Annie E. Casey Foundation, Kids Count Data Center, Community Level Data, North Carolina Indicators; http://datacenter.kidscount.org/data/bystate/chooseindicator.aspx?state=NC.

The Gates County Department of Social Services provided more recent local data on the numbers of children receiving/waiting for a child care subsidy (Table 41).

Table 41. Child Day Care Subsidies Provided by Gates County Department of Social Services (FY2010-11, FY2011-12, and FY2012-13 to date)

Fiscal Year	Avg. No. Receiving Care	Avg. No. on Waiting List	Subsidy Expenditure
2010-11	91	14	$334,156
2011-12	71	22	$278,692
2012-13 (July-October)	72	11	$88,950

Source: Geoffrey C. Marett, Director, Gates County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 5, 2012.

EDUCATION

Higher Education

There are no four-year colleges or universities physically located in Gates County, but several institutions of higher education in the ARHS region are accessible to Gates County residents, as are colleges and universities in southern-tier VA.

College of the Albemarle

The College of The Albemarle (COA) is a community college that serves northeastern NC with sites in several locations throughout the region, including a campus in Edenton, one in Elizabeth City, and a third in Manteo. A comprehensive community college, COA offers two-year degrees in college transfer and career programs, basic skills programs, continuing education classes for personal enrichment as well as credit, customized business and industry training, and cultural enrichment opportunities including an annual summer program called College for Kids. The COA is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees.

The college's Chowan County campus opened in 1989 as an Adult Education Center with a primary mission to improve literacy. Since that time the COA has significantly expanded its offerings in Chowan County to include not only basic skills instruction in reading, math, GED preparation and English as a Second Language, but also curriculum courses, a culinary technology program, and a variety of corporate and continuing education courses. COA presently offers a number of certificate and diploma programs as well as college transfer courses (26).

Roanoke-Chowan Community College

Roanoke-Chowan Community College (RCCC) is a regional community college located in Ahoskie, NC (Hertford County). The College currently has about 20 curricular programs in which students may seek degrees, diplomas and short term skills-based certificates. RCCC recently added an Associate of Fine Arts Degree in Visual Arts, in addition to diplomas in high demand occupational training in Building Construction, Plumbing and other construction-related technologies. The College offers a Lateral Entry Teacher Certificate tailored to meet the need of public schools within the region to fully credential educators who have entered the classroom without the advantage of full unrestricted licensure.

RCCC has established formal transfer agreements with the 16-member University of North Carolina System and several private colleges to provide transfer opportunities for students to pursue higher-level degrees. RCCC has expanded its distance learning studies to include Internet-based courses, and has increased efforts with area school systems to provide more opportunities for high school students to take college courses, either on the RCCC campus or at their respective high schools.

The RCCC Continuing Education and Workforce Development Division meets business needs by establishing basic or occupation-related classes within local industries and by developing Focused Industrial Training (FIT) opportunities. Its Small Business component works on a one-on-one basis with individuals and small companies wanting to start and or enhance a small business enterprise. The Hertford County JobLink Career Center is also located on the RCCC Campus (27).

Chowan University

Chowan University is a small (~1,300 students) four-year liberal arts university located in Murfreesboro, NC (Hertford County). Chowan University is affiliated with the Southern Baptist Association. The university offers over 63 academic programs and the recently-opened School of Graduate Studies provides students the opportunity to earn Masters Degrees. Currently, Chowan offers the Master of Education (M.Ed.) degree with advanced teacher license.

Chowan University enrolls about 30 adult students in the Adult Degree Completion Program. Through this program, adult students take classes at Halifax Community College in Weldon, NC, at the main campus in Murfreesboro, NC, and online.

The Chowan University student/faculty ratio is 16:1, with an average class size of 15. The university has a campus-wide fiber-optic network and Blackboard communication system, computer labs, "smart" multimedia classrooms, hardware and software discounts, in-house technical support, and 24/7 high-speed Internet access (28).

Martin Community College

Martin Community College (MCC) is a regional community college located in Williamston, NC (Martin County) with a satellite campus located in Windsor. MCC provides adult basic education, adult high school education, extension classes, and selected curriculum courses in 20 vocational and technical areas. MCC also offers an Associate in Arts College Transfer Program and a Transfer Core Diploma. The college offers online curricular and continuing education classes via a system called *ed2go* (29).

Elizabeth City State University

Elizabeth City State University (ECSU) is a four-year state university located in Elizabeth City, NC (Pasquotank County). Originally an institution for African-American students, the university now has an increasingly multicultural student body. In the fall of 2012, ECSU had a total enrollment of 2878. A constituent institution of The University of North Carolina System, ECSU offers 37 baccalaureate degrees and four master's degrees in four academic schools: Arts and Humanities; Business and Economics; Education and Psychology; and Mathematics, Science and Technology. The university has academic programs that appeal to various interests and fields of study, including the honors program, military science, study abroad, Viking Fellows for education majors, and “signature” programs in aviation and pharmacy (30).

East Carolina University

East Carolina University (ECU) is a large, four-year state university located in Greenville, NC (Pitt County). ECU is a constituent member of the UNC System founded in 1907 to alleviate the desperate shortage of teachers in the eastern part of NC. Since then, the ECU College of Education has been joined by programs of high distinction in health care and the fine and performing arts. Today the university offers over 100 bachelor’s degree programs, more than 70 master’s degree programs, four specialist degree programs, an MD program, and 16 doctoral programs. The university is the largest educator of nurses in NC, and its Brody School of Medicine is consistently ranked among the top medical schools in the nation that emphasize

primary care. The school was recently ranked second in the nation by the American Academy of Family Physicians for productivity of family physicians.

ECU is the state's leader in distance education, offering more than 60 degrees and certificate programs in subjects such as business, education, health care, and technology. Two of the top distance-education programs in the nation are run by ECU's colleges of nursing and education (31).

Primary and Secondary Education

Schools and Enrollment

Tables 42 through 50 focus on data pertaining to primary and secondary (mostly public) schools in Gates County (as well as its comparator jurisdictions where appropriate).

- There are five public schools in the Gates County school district: three elementary schools, one middle school, and one secondary school. There are no private schools in the county (Table 42).

Table 42. Number of Schools (SY2011-12)

Location	Public				Private			
	Elementary (PK-8)	Middle (4-8)	Secondary (9-12)	Combined	K-12	K-9/8	9-12	Other
Gates County Schools	3	1	1	0	0	0	0	0
Regional Total	25	10	12	0	5	2	0	2
Source:	a	a	a	a	b	b	b	b

a - NC Department of Public Instruction, NC School Report Cards, Search by School District. http://www.ncreportcards.org/src/main.jsp?pList=1&pYear=2011-2012.
b - Private School Review, North Carolina Private Schools, Search by Zip Code; http://www.privateschoolreview.com/find_schools.php.

- Gates County Senior High School in Gatesville was the largest school in the district, with a SY2011-12 enrollment of 569. Central Middle School, also in Gatesville, was the second largest school in the district, with a SY2011-12 enrollment of 424. (Table 43).

Table 43. Gates County Public Schools (November, 2012)

School	Location	School Type/Calendar	Grade Range	Enrollment SY2011-12
Buckland Elementary	Gates	Regular School, Traditional Calender	PK-5	247
Central Middle	Gatesville	Regular School, Traditional Calender	6-8	424
Gates County Senior High	Gatesville	Regular School, Traditional Calender	9-12	569
Gatesville Elementary	Gatesville	Regular School, Traditional Calender	PK-5	288
TS Cooper Elementary	Sunbury	Regular School, Traditional Calender	K-5	250

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards, School Year 2009-10; http://www.ncschoolreportcards.org/src.

- K-12 public school enrollment in Gates County declined every year between SY2006-07 and SY2010-11 before rebounding some in SY2011-12; a similar pattern occurred across the ARHS region, with continuous enrollment declines from SY2007-08 through SY2010-11 (Table 44).

Table 44. K-12 Public School Enrollment
(SY2005-06 through SY2011-12)

Location	Number of Students						
	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12
Gates County Schools	2,115	2,142	2,083	2,013	1,957	1,900	1,948
Regional Average	3,210	3,212	3,150	3,101	3,038	3,017	3,122
State of NC	1,428,912	1,452,420	1,458,156	1,456,558	1,446,650	1,450,435	n/a
	a	a	a	a	a	a	b

Note: this data excludes charter school enrollment.
a - NC Department of Public Instruction, Data and Statistics, Education Data: NC Statistical Profile. NC Statistical Profile Online: Local Education Agencies Information, Pupil Accounting. http://apps.schools.nc.gov/pls/apex/f?p=1:1:497147721913602.
b - NC Department of Public Instruction, Data and Statistics, Education Data: Attendance and Membership Data. Principals Monthly Report. Month 1 for each school year, then look for the appropriate LEA by number. http://www.ncpublicschools.org/fbs/accounting/data/.

Educational Attainment

Table 45 presents data on several measures of educational attainment.

- Among the four jurisdictions being compared, in a 2006-2010 US Census Bureau estimate, Gates County had the second highest percentages of high school graduates (82.6%) barely lower than the state average (83.6%) and slightly higher than the regional average (81.8%)
- In the same period, Gates County had the lowest percentage of residents with a bachelor's degree or higher (10.5%), 33% lower than the regional average and 60% lower than the state average.
- According to SY2011-12 End of Grade (EOG) Test results, higher percentages of third graders in Gates County public schools demonstrated grade-appropriate proficiency in both reading (86%) and math (86%) than students in the region or the state as a whole. End of Grade test performance among Gates County eighth graders was lower, with 68% scoring at or above grade level in reading, and 84% scoring at or above grade level in math.
- The average SAT score for Gates County students was 925, with a participation rate of 39%.

Table 45. Educational Attainment

Location	% Population High School Graduate or Higher	% Population Bachelor's Degree or Higher	% 3rd Graders At or Above Grade Level, ABCs EOG Reading Test	% 3rd Graders At or Above Grade Level, ABCs EOG Math Test	% 8th Graders At or Above Grade Level, ABCs EOG Reading Test	% 8th Graders At or Above Grade Level, ABCs EOG Math Test	SAT Participation Rate	Average Total SAT Scores
	2010	2010	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12
Gates County	82.6	10.5	85.7	85.7	67.5	83.8	39%	925
Regional Average	81.8	15.6	68.4	80.2	70.2	87.6	60%	956
Jones County	78.2	10.7	58.4	68.5	75.0	88.2	45%	898
State of NC	83.6	26.1	68.8	82.8	71.1	85.2	68%	997
Source:	a	a	b	b	b	b	b	b

a - US Census Bureau, American Fact Finder, American Community Survey, 2006-2010 American Community Survey (ACS) 5-Year Estimates, Data Profiles, Detailed Tables, Selected Social Characteristics, Educational Attainment, by State or County; http://factfinder.census.gov.
b - NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. http://www.ncreportcards.org/src/.

Educational Expenditures

Table 46 presents data on local, state and federal expenditures on public education.

- In the 2011-12 school year the total per pupil expenditure (the sum of Federal, state and local investments) in Gates County schools ($10,615) was 10% higher than the average for the ARHS region ($9,645), and 26% higher than the average for the state as a whole ($8,417).
- In all jurisdictions, the state contributed the highest proportion to the total per-pupil expenditure: 70% in Gates County schools, an average of 69% region-wide, and an average of 64% statewide.

Table 46. Educational Expenditures (SY2011-12)

Location	Per-Pupil Expenditure			
	Local	State	Federal	Total
Gates County Schools	$1,973	$7,417	$1,225	$10,615
Regional Average	$1,698	$6,655	$1,292	$9,645
State of NC	$1,904	$5,355	$1,158	$8,417

Source: NC Department of Public Instruction, Data and Statistics, Education Data, NC School Report Cards. District Profile. http://www.ncreportcards.org/src/.

High School Drop-Out Rate

Table 47 presents data on the high school (grades 9-12) drop-out rate. According to the NC Department of Public Instruction, a "drop-out" is any student who leaves school for any reason before graduation or completion of a program of studies without transferring to another elementary or secondary school. For reporting purposes, a drop-out is a student who was enrolled at some time during the previous school year, but who was not enrolled (and who does not meet reporting exclusions) on day 20 of the current school year. The data below is specific to high school students.

- The high school drop-out rate in Gates County schools fluctuated over the period cited in the table, but was highest (6.64) in SY2006-07.

Table 47. High School Drop-Out Rate
(SY2004-05 through SY2010-11)

Location	Drop-Out Rate						
	SY2004-05	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11
Gates County Schools	4.19	3.69	6.64	5.88	3.35	2.30	2.94
Regional Average	4.90	4.94	4.38	4.78	3.65	3.42	3.53
State of NC	4.74	5.04	5.27	4.97	4.27	3.75	3.43

a - NC Department of Public Instruction, Research and Evaluation, Dropout Data and Collection Process, Annual Dropout Reports; http://www.ncpublicschools.org/research/dropout/reports/.

Graduation Rate

The four-year cohort graduation rates for subpopulations of 9th graders entering high school in SY2008-09 and graduating in SY2011-12 are presented in Table 48.

- The overall graduation rates for all student categories shown in the table were highest for students of Gates County schools. In all categories the lowest graduation rates among those being compared were the state averages.

Table 48. Four Year Cohort Graduation Rate
(9th Graders Entering SY2008-09 and Graduating SY2011-12 or Earlier)

Location	All Students			Male			Female			Economically Disadvantaged		
	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating
Gates County Schools	161	138	85.7	79	62	78.5	82	76	92.7	81	67	82.7
Regional Average	214	175	82.4	113	88	77.2	100	88	87.9	107	84	78.9
State of NC	110,886	89,187	80.4	56,675	43,348	76.5	54,211	45,839	84.6	48,553	36,268	74.7

Note: subgroup information is based on data collected when a student is last seen in the cohort
Source: Public Schools of North Carolina, Cohort Graduation Rate. 4-Year Cohort Graduation Rate Report, 2008-09 Entering 9th Graders Graduating in 2011-12 or Earlier. http://www.ncpublicschools.org/accountability/reporting/cohortgradrate.

School Crime and Violence

Along with test scores and dropout rates, schools now also track and report acts of crime and violence that occur on school property.

The NC State Board of Education has defined 17 criminal acts that are to be monitored and reported, ten of which are considered dangerous and violent:

- Homicide
- Assault resulting in serious bodily injury
- Assault involving the use of a weapon
- Rape
- Sexual offense
- Sexual assault
- Kidnapping
- Robbery with a dangerous weapon
- Robbery without a dangerous weapon

- Taking indecent liberties with a minor

The other seven criminal acts are:

- Assault on school personnel
- Bomb threat
- Burning of a school building
- Possession of alcoholic beverage
- Possession of controlled substance in violation of law
- Possession of a firearm or powerful explosive
- Possession of a weapon

Table 49 summarizes crime and violence catalogued by the NC Department of Public Instruction for schools in Gates County, the ARHS region, Jones County, and the state overall.

- The number and rate of acts of school crime and violence in Gates County schools and the other jurisdictions fluctuated dramatically over the period cited. Only the statewide average showed any stability, likely due to the large size of the sample. The state rate increased in the two most recent school years cited.

Table 49. School Crime and Violence Trend
(SY2004-05 through SY2010-11)

Location	SY2004-05		SY2005-06		SY2006-07		SY2007-08		SY2008-09		SY2009-10		SY2010-11	
	No. Acts[1]	Rate[2]	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate
Gates County Schools	11	5.6	10	5.0	13	6.4	20	10.1	9	4.7	9	4.8	3	1.7
Regional Average	12	4.4	14	4.8	17	5.5	21	7.6	19	6.0	14	5.0	16	4.6
Jones County Schools	7	5.2	3	2.3	7	5.5	16	13.1	1	0.8	0	0	11	9.7
State of NC	10,107	7.5	10,959	7.9	11,013	7.8	11,276	7.9	11,116	7.6	11,608	8.0	11,657	8.0
Source	a	a	a	a	a	a	b	b	b	b	b	b	b	b

[1] For list of reportable acts see accompanying text

[2] Rate is number of acts per 1,000 students

a - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Annual Reports, Annual Reports of School Crime and Violence (years as noted); http://www.ncpublicschools.org/research/discipline/reports/#consolidated.

b - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports. Crime & Violence Table C-5. http://www.ncpublicschools.org/research/discipline/reports/#consolidated.

Table 50 presents data summarizing disciplinary activity in the public schools. Since the data represent counts of activity of school systems of different sizes, direct comparisons are problematic.

- In all the school systems under comparison the most common disciplinary activity was the short-term suspension and expulsions were rare.

Table 50. School Disciplinary Activity (SY2008-09 through SY2010-11)

School System	SY2008-09			SY2009-10			SY2010-11		
	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions
Gates County Schools	385	18	0	437	8	0	244	3	0
Regional Average	570	10	0	584	8	1	570	6	0
Jones County Schools	153	0	0	114	0	0	148	0	0
State of NC	293,453	3,592	116	277,206	3,368	88	262,858	2,586	59

[1] A short-term suspension is up to 10 days.

[2] A long term suspension is 11 or more days.

a - NC Department of Public Instruction, Research and Evaluation, Discipline Data, Consolidated Data Reports (years as noted); http://www.ncpublicschools.org/research/discipline/reports/#consolidated.

CRIME AND SAFETY

Crime Rates

All crime statistics reported below were obtained from the NC Department of Justice, State Bureau of Investigation unless otherwise noted.

Index crime is composed of *violent crime* and *property crime*. Violent crime includes murder, forcible rape, robbery, and aggravated assault; property crime includes burglary, larceny, arson, and motor vehicle theft.

Table 51 presents the rates for index crime, violent crime, and property crime for the period from 2007 through 2011.

- Several years of missing data prevent comparisons involving Gates and Jones counties.
- The largest component of index crime region-wide and statewide was property crime.
- In all years cited crime rates for the state as a whole were higher than the comparable rates for the region.

Table 51. Crime Rates, Crimes per 100,000 Population (2007-2011)

Location	Crimes per 100,000 Population														
	2007			2008			2009			2010			2011		
	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime
Gates County	1,318.7	86.2	1,232.5	*	*	*	*	*	*	*	*	*	*	*	*
Regional Average	2,212.1	208.9	2,003.1	2,400.3	266.4	2,133.9	2,237.1	231.7	2,005.4	2,191.1	211.0	1,980.1	2,512.8	196.6	2,316.2
Jones County	2,498.5	175.7	2,322.9	*	*	*	*	*	*	*	*	*	*	*	*
State of NC	4,658.9	480.2	4,178.7	4,554.6	474.2	4,080.4	4,178.4	417.2	3,761.2	3,955.7	374.4	3,581.4	3,919.8	354.6	3,565.2

* - Indicates incomplete or missing data.
Source: NC Department of Justice, State Bureau of Investigation, Crime, View Crime Statistics, Crime Statistics (by Year); http://ncdoj.gov/Crime/View-Crime-Statistics.aspx.

Table 52 presents detail on index crime committed in Gates County from 2006-2011. Note the following definitions:

Robbery: larceny by the threat of violence;
Aggravated assault: a physical attack on another person which results in serious bodily harm and/or is made with a deadly or dangerous weapon such as a gun, knife, sword, ax or blunt instrument;
Burglary: unlawful breaking and entering into the premises of another with the intent to commit a felony;
Larceny: the theft of property without use of force; and
Motor vehicle theft: the theft or attempted theft of a motor vehicle

- For the two years for which there was data, the predominant violent crime reported was aggravated assault.
- Larceny was the predominant property crime reported in 2006 and 2007.
- NC SBI reported that Gates County data was incomplete or missing in all the other years.

Table 52. Types of Crimes Reported in Gates County (2006-2011)

Type of Crime	Number of Crimes					
	2006	2007	2008	2009	2010	2011
Violent Crime						
Murder	0	0	n/a	n/a	n/a	n/a
Rape	1	2	n/a	n/a	n/a	n/a
Robbery	0	2	n/a	n/a	n/a	n/a
Aggravated Assault	4	6	n/a	n/a	n/a	n/a
Property Crime						
Burglary	8	47	n/a	n/a	n/a	n/a
Larceny	23	93	n/a	n/a	n/a	n/a
Motor VehicleTheft	3	3	n/a	n/a	n/a	n/a
Total Index Crimes	39	153	n/a	n/a	n/a	n/a

n/a - Indicates incomplete or missing data.
Source: NC State Bureau of Investigation, Crime in North Carolina, North Carolina Crime Statistics, Crime Statistics in Detailed Reports (By Year), 2011 Annual Reports, County Offenses Ten Year Trend, http://crimereporting.ncdoj.gov/ ,

Other Criminal Activities

Table 53 summarizes data on other types of criminal activities.

- As of January 2, 2013 there were 18 registered sex offenders in Gates County, compared to 22 in Jones County. The regional average was 32.
- According to the NC Governor's Crime Commission, in 2012 there were no gangs in Gates County, and none in Jones County. The same year, the Crime Commission sited a total of 963 gangs statewide.
- According to the NC State Bureau of Investigation, there was one methamphetamine drug lab bust in Gates County during the period from 2005 through 2011. Over the same period, 1,664 meth lab busts were recorded statewide.

Table 53. Other Criminal Activity

Location	No. Registered Sex Offenders (1/2/13)	No. Gangs	No. Methamphetamine Lab Busts						
		2012	2005	2006	2007	2008	2009	2010	2011
Gates County	18	0	0	0	1	0	0	0	0
Regional Average	32	2	<1	<1	<1	<1	<1	<1	<1
Jones County	22	0	0	0	0	0	2	0	2
State of NC	14,028	963	328	197	157	197	206	235	344
Source:	a	b	c	c	c	c	c	c	c

a - NC Department of Justice, Sex Offender Statistics, Offender Statistics; http://sexoffender.ncdoj.gov/stats.aspx.
b - NC Department of Crime Control and Public Safety, Governor's Crime Commission, Publications. Gangs in North Carolina: An Analysis of GangNET Data, March 2012, Table 4. Gang Numbers and Node by County; http://www.ncgccd.org/pdfs/pubs/gang%20crime/2012GangReport.pdf.
c - NC Department of Justice, State Bureau of Investigation, Crime, Enforce Drug Laws, Meth Focus, Meth Lab Busts; http://www.ncdoj.gov/getdoc/b1f6f30e-df89-4679-9889-53a3f185c849/Meth-Lab-Busts.aspx.

Juvenile Crime

The following definitions will be useful in understanding the subsequent data and discussion.

Complaint: A formal allegation that a juvenile committed an offense, which will be reviewed by a counselor who decides whether to approve or not approve the complaint. If approved, it will be heard in juvenile court.
Undisciplined: Describes a juvenile between the ages of six and 16, who is unlawfully absent from school, or regularly disobedient and beyond disciplinary control of parent/guardian, or is regularly found where it is unlawful for juveniles to be, or has run away from home for more than 24 hours. It also includes 16-17 year olds who have done any of the above except being absent from school.
Delinquent: Describes a juvenile between the ages of six and not yet 16 who commits an offense that would be a crime under state or local law if committed by an adult.
Diversion: If a complaint is not approved, it may be diverted to a community resource or placed on a diversion contract or plan that lays out stipulations for the juvenile (like community service) to keep the juvenile out of court.
Non-divertible: Non-divertible offenses include offenses like: murder, rape, sexual offense, arson, first degree burglary, crime against nature, willful infliction of serious bodily harm, assault with deadly weapon, etc.
Transfer to Superior Court: A juvenile who is 13, 14 or 15 who is alleged to have committed a felony may be transferred to Superior Court and tried and sentenced as an adult. If a juvenile is over 13 and charged with first degree murder, the judge must transfer the case to Superior Court if probable cause is found.
Rate: The number per 1,000 persons that are aged 6 to 17 in the county.

Table 54 presents a summary of juvenile justice complaints and outcomes for 2010 and 2011.

- Between 2010 and 2011 the *number* of complaints of *undisciplined* youth in Gates County remained unchanged, and the *rate* of *undisciplined* youth decreased 3% in falling from 2.04 to 1.97.
- Over the same period the *number* of complaints of *delinquent* youth in Gates County decreased from 38 to 31 (18%), and the *rate* of *delinquent* youth decreased from 24.45 to 18.73 (23%).
- In both 2010 and 2011 lower numbers of Gates County juveniles were sent to secure detention than the regional averages.
- No Gates County juveniles were sent to youth development centers in 2010 or 2011, and none were transferred to Superior Court.

Table 54. Juvenile Justice Complaints and Outcomes (2010 and 2011)

Location	Complaints								Outcomes					
	No. Undisciplined		No. Delinquent		Rate Undisciplined (Complaints per 1,000 Ages 6 to 17)		Rate Delinquent (Complaints per 1,000 Age 6 to 15)		No. Sent to Secure Detention		No. Sent to Youth Development Center		No. Transferred to Superior Court	
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Gates County	4	4	38	31	2.04	1.97	24.45	18.73	4	5	0	0	0	0
Regional Average	10	9	83	66	2.92	2.89	29.06	24.99	9	10	0	0	0	0
Jones County	1	8	10	5	0.68	5.58	8.7	4.16	1	2	0	0	0	0
State of NC	4,285	3,603	33,299	33,556	2.94	2.34	27.55	26.08	4,297	3,558	357	307	30	28

Source: NC Department of Juvenile Justice and Delinquency Prevention, Statistics and Legislative Reports, County Databooks (Search by Year); http://www.ncdjjdp.org/statistics/databook.html.

Sexual Assault

Table 55 summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of sexual assault from FY2004-05 through FY2010-11.

- Note that since the figures are counts and not rates, they are difficult to compare from one jurisdiction to another in a meaningful way.
- There were many missing figures for Gates and Jones counties, but even the jurisdictions with a full series of numbers did not demonstrate a clear pattern of complaints.
- Statewide, there was a 58% increase in the number of complaints between FY2008-09 and FY2009-10, and a smaller increase between FY2009-10 and FY2010-11. At the regional level the number of complaints increased by a factor of 3.4 between FY2007-08 and FY2008-09.

Table 55. Sexual Assault Complaint Trend (FY2004-05 through FY2010-11)

Location	No. of Individuals Filing Complaints ("Clients")						
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11
Gates County	n/a	n/a	1	4	n/a	22	22
Regional Average	77	38	39	17	58	66	51
Jones County	n/a	n/a	n/a	n/a	n/a	n/a	n/a
State of NC	8,564	8,721	7,444	6,527	8,494	13,392	13,881

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); http://www.doa.state.nc.us/cfw/stats.htm.

Table 56 presents details on the types of sexual assaults reported in FY2010-11.

- Although numbers in each category are small (<20), the largest proportions of sexual assault complaints in Gates County were for child sexual offense (73%) and incest (18%).
- Region-wide the largest proportion of sexual assault complaints (39.7%) was by adult survivors of child sexual assault, and the second highest proportion (22.6%) was for child sexual offense.
- Statewide the largest proportion of sexual assault complaints (23.7%) involved adult rape; the second largest proportion (22.2%) involved child sexual offense.

Table 56. Types of Sexual Assaults (FY2010-11)

Location	Total Assault Clients	Type of Assault													
		Adult Rape		Date Rape		Adult Survivor of Child Sexual Assault		Marital Rape		Child Sexual Offense		Incest		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gates County	22	2	9.1	0	0.0	0	0.0	0	0.0	16	72.7	4	18.2	0	0.0
Regional Average	51	6	11.7	3	6.4	20	39.7	5	10.3	12	22.6	3	6.1	2	3.1
Jones County	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
State of NC	13,881	3,289	23.7	1,328	9.6	2,393	17.2	1,162	8.4	3,086	22.2	1,216	8.8	1,407	10.1

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2010-2011 County Statistics; http://www.doa.state.nc.us/cfw/stats.htm.

Table 57 details the types of offenders involved in sexual assaults in FY2010-11.

- In Gates County the most common offender in sexual assault complaints was an acquaintance (52%), followed by a relative (37%).
- Region-wide, the most common offender was a relative (51.4%), followed by an acquaintance (33.1%).
- Statewide the most common offender was a relative (36.6%), followed closely by an acquaintance (33.1%).

Table 57. Types of Offenders in Sexual Assaults (FY2010-11)

Location	Total Offenders	Type of Offender									
		Relative		Acquaintance		Boy/Girl Friend		Stranger		Unknown	
		No.	%	No.	%	No.	%	No.	%	No.	%
Gates County	27	10	37.0	14	51.9	1	3.7	1	3.7	1	3.7
Regional Average	49	28	51.4	14	33.1	5	8.7	2	4.9	1	1.9
Jones County	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
State of NC	13,603	4,978	36.6	4,505	33.1	1,635	12.0	928	6.8	1,557	11.4

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2010-2011 County Statistics; http://www.doa.state.nc.us/cfw/stats.htm.

Domestic Violence

Table 58 summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of domestic violence from FY2004-05 through FY2010-11.

- Since the figures are counts and not rates, they are difficult to compare from one jurisdiction to another in a meaningful way.
- The annual number of complaints varies without a clear pattern in all four jurisdictions over the period covered.

Table 58. Domestic Violence Complaint Trend (FY2004-05 through FY2010-11)

Location	No. of Individuals Filing Complaints ("Clients")						
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11
Gates County	98	93	65	66	123	188	161
Regional Average	177	145	180	134	163	252	216
Jones County	108	73	82	89	66	67	75
State of NC	50,726	48,173	47,305	41,787	51,873	66,320	61,283

Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, County Statistics (years as noted); http://www.doa.state.nc.us/cfw/stats.htm.

Table 59 provides details on the services received by domestic violence complainants in FY2010-11.

- The 161 domestic violence clients in Gates County received a total of 1,924 services.
- The largest numbers of services received by domestic violence complainants in Gates County were information (632) followed by advocacy (567), and counseling (445).
- The largest numbers of services received by complainants region-wide were for advocacy, information and counseling.
- Residents of Gates County have access to two domestic violence shelters. One was full on 114 days and the other was full on 42 days.

Table 59. Services Received by Domestic Violence Complainants (FY2010-11)

Location	Total Domestic Violence Clients	Services Received									Days Local Shelter was Full
		Total	Information	Advocacy	Referral	Transport	Counseling	Hospital	Court	Other	
Gates County	161	1,924	632	567	89	16	445	0	166	9	156*
Regional Average	216	3,302	731	1,236	441	72	606	1	214	1	102
Jones County	75	1,120	389	154	415	2	105	0	46	9	0
State of NC	61,283	476,979	107,679	105,203	69,533	27,933	68,981	1,232	48,995	47,423	7,999

* - Gates County has access to two shelters; one was full on 114 days and the other was full on 42 days.
Source: NC Department of Administration, Council for Women, Domestic Violence Commission, Statistics, 2010-11 County Statistics; http://www.doa.state.nc.us/cfw/stats.htm.

Albemarle Hopeline, Inc.

Albemarle Hopeline, a private, non-profit organization founded in 1981, is the only program of its kind in the Albemarle region, with outreach through four satellite offices (Chowan, Currituck, Gates and Perquimans counties), a shelter/direct service facility, and a thrift store. The agency is guided by the mission of "providing comprehensive direct and preventive services to victims of family violence, sexual assault and teen dating violence" in the counties of Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans.

Services include: 24-hour crisis line; emergency Hope House shelter; food, clothing and transportation; crisis intervention; court advocacy; individual and group counseling for adults and children; Displaced Homemaker Program; information and referral; outreach; and prevention through awareness and education to school, church and civic groups and the community-at-large. Since the opening of an enlarged 14,200 square foot Hope House facility in 2006, Hopeline has been able to consolidate services to both residential and non-residential victims, and improve coordination and effectiveness. All services are designed to meet basic safety needs of victims of domestic and sexual violence, empowering them to establish and maintain healthy, violence-free lives (32).

Phone: 252-338-5338
24-hour crisis line: 252-338-3011
Fax: 252-338-2952
Mailing address: PO Box 2064, Elizabeth City, NC 27906-2064
Website: www.albemarlehopeline.org.

Roanoke Chowan Services for Abused Families with Emergencies (SAFE)

Roanoke Chowan S.A.F.E. is a non-profit organization, founded in 1984, that provides direct services, support, education and public awareness to victims of domestic/family violence and sexual assault in the counties of Hertford, Gates, Bertie and Northampton. SAFE provides the

following services: 24 hour crisis line, emergency shelter, food, clothing, court advocacy, crisis intervention, transportation, assistance in filing victim's compensation forms, referrals, and more considering the circumstances. The goal of the agency is to enable clients to live violence-free and to become self-sufficient. SAFE does not charge for its services (33).

Telephone & Crisis Line: (252) 332-1933
Fax: (252) 332-2450
Address: PO Box 98 Ahoskie, NC 27910
Website: www.roanoke-chowansafe.webs.com

Child Maltreatment

The responsibility for identifying and reporting cases of child abuse, neglect and exploitation falls to the child protective services program within a county's department of social services. Generally speaking, such a unit will have sufficient staff to handle intake of all reports. However, an agency's ability to investigate and monitor reported cases may vary from year to year, depending on the number of properly trained staff available to it; hence, follow-up on reports may vary independently of the number of reports. Table 60 presents child protective services data from the state's Child Welfare website for the period from FY2004-05 through FY2011-12.

- The total number of findings of child abuse, neglect or dependency in Gates County fluctuated annually without a clear pattern. For the period cited, the highest number of findings was 99 in FY2006-07, and the lowest was 71 in FY2007-08. The average number of reports of child abuse, neglect or dependency per year throughout the period cited was 85.
- Over the period covered in the table the annual total number of *substantiated* findings of abuse and neglect, abuse only, and neglect only covered by those reports ranged from a high of 30 in FY2004-05 to a low of 5 in FY2007-08 and FT2010-11, and averaged approximately 14 per year.

Table 60. Reports of Child Abuse and Neglect, Gates County (FY2004-05 through FY2011-12)

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Total No. of Findings of Abuse, Neglect, Dependency	93	79	99	71	84	80	87	88
No. Substantiated[1] Findings of Abuse and Neglect	0	0	0	1	0	0	0	3
No. Substantiated Findings of Abuse	0	3	0	0	0	0	1	2
No. Substantiated Findings of Neglect	30	15	20	4	9	7	4	12
Services Recommended	0	0	8	11	16	15	7	5
No. Unsubstantiated Findings	59	37	46	22	27	20	31	32
Services Not Recommended	4	23	14	17	25	34	39	30

[1] A "substantiated" report of child abuse, neglect or exploitation indicates that the investigation supports a conclusion that the subject child(ren) was/were abused, neglected, or exploited.
Source: Child Welfare, Reports of Abuse and Neglect section, Reports of Abuse and Neglect Type of Finding/Decision (Not Exclusive) (Longitudinal Data); http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.tbReport.sas&county=Alamance&label=County&format=html&entry=10&type=CHILD&fn=FRST&vtype=xfind.

Table 61 presents demographic detail from the same source as above on the cases in Gates County described for FY2011-12.

- Of the 17 substantiated findings of abuse and/or neglect, 15 involved white children and two involved African American children; 13 involved non-Hispanic children and four involved Hispanic children; eight involved males and nine involved females; seven victims were under the age of six, four were ages 6-12, and six were ages 13-17.

Table 61. Demographic Detail of Child Abuse Cases, Gates County (FY2011-12)

Finding	Total	White	African-American	American Indian/Alaskan	Other Races	Hispanic	Non-Hispanic	Male	Female	Ages 0-5	Ages 6-12	Ages 13-17	Missing Age Information
Abuse and Neglect	3	3	0	0	0	0	3	2	1	0	0	3	0
Abuse	2	2	0	0	0	0	2	0	2	0	1	1	0
Neglect	12	10	2	0	0	4	8	6	6	7	3	2	0
Services Provided, No Longer Needed	4	1	3	0	0	0	4	1	3	1	3	0	0
Services Recommended	5	5	0	0	0	0	5	3	2	2	3	0	0
Unsubstantiated	32	30	2	0	0	5	27	19	13	7	15	10	0
Services Not Recommended	30	18	12	0	0	0	30	18	12	14	7	9	0

Source: Child Welfare, Reports of Abuse and Neglect section, Table of Summary Data: Type of Finding by Category (Longitudinal). http://sasweb.unc.edu/cgi-bin/broker?_service=default&_program=cwweb.icans.sas&county=North%20Carolina&label=&entry=10.

Adult Maltreatment

Adults who are elderly, frail, or mentally challenged are also subject to abuse, neglect and exploitation. County DSS Adult Protective Services units screen, investigate and evaluate reports of what may broadly be referred to as adult maltreatment. Table 62 presents state-cataloged adult protective service survey data for 2009 and 2011.

- Note that reports "screened out" do not meet the legal definition of potential maltreatment and are not investigated further.
- In Gates County the proportion of reports screened in for further investigation and services was 43% in 2009 and 51% in 2011.
- Services most frequently provided to Gates County adult maltreatment victims were outreach and information and referral.

Table 62. NC Adult Protective Services Survey Results (2009 and 2011)

Location	2009										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Gates County	14	6	8	5	1	1	1	0	0	0	0
Regional Average	31	16	14	4	6	1	1	1	0	0	0
Jones County	9	6	3	2	0	0	0	0	0	0	0
State of NC	17,073	9,835	7,239	2,443	2,640	471	568	488	34	42	134

Location	2011										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Gates County	35	18	17	4	9	1	0	0	0	0	0
Regional Average	35	21	14	3	7	1	1	1	0	0	0
Jones County	13	10	3	0	0	0	0	0	0	0	0
State of NC	19,635	10,929	8,706	2,665	2,736	725	475	651	33	30	152

Source: NC DHHS. Division of Aging and Adult Services. Adult Protective Services. APS Survey Data, 2009 and 2011; http://www.ncdhhs.gov/aging/adultsvcs/afs_aps.htm

CHAPTER THREE: HEALTH RESOURCES

Access to and utilization of healthcare is affected by a range of variables including the availability of medical insurance coverage, availability of medical professionals, transportation, cultural expectations and other factors.

MEDICAL INSURANCE

Medically Indigent Population

In most communities, citizens' utilization of health care services is related to their ability to pay for those services, either directly or through private or government health insurance plans/programs. People without these supports are called “medically indigent”, and theirs is often the segment of the population least likely to seek and/or to be able to access necessary health care.

Table 63 presents data on the proportion of the population (by age group) without health insurance of any kind. The health insurance system in the US is built largely upon employer-based insurance coverage, so an increase in the number of unemployed people usually leads to an increase in the number of uninsured.

- Over the period cited in the table, the percent of the Gates County population overall (age 0-64) without health insurance decreased from one biennium to the next.
- In all jurisdictions the younger age group (0-18) had a lower percent without health insurance than the older age group (19-64).
- The percent of uninsured in the younger age group in Gates County decreased from 11.5% in 2006-2007 to 7.7% in 2010-2011, a 33% improvement.

Table 63. Percent of Population without Health Insurance, by Age Group (2006-07, 2008-09, and 2010-11)

Location	2006-2007			2008-2009			2010-2011		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Gates County	11.5	24.0	20.1	10.0	23.8	19.7	7.7	22.8	18.5
Regional Average	11.6	24.4	20.4	10.2	24.2	20.1	7.8	21.4	17.6
Jones County	14.0	26.5	22.7	11.4	24.4	20.9	8.3	22.7	18.9
State of NC	11.3	19.5	19.5	11.5	23.2	19.7	9.4[1]	23.0[1]	18.9[1]

Source: North Carolina Institute of Medicine, NC Health Data, Uninsured Snapshots, Characteristics of Uninsured North Carolinians; http://www.nciom.org/nc-health-data/uninsured-snapshots/.
[1] Source: North Carolina Institute of Medicine, NC Health Data, Uninsured Snapshots, Characteristics of Uninsured North Carolinians 2020-2011, http://www.nciom.org/nc-health-data/uninsured-snapshots/.

North Carolina Health Choice

In 1997, the Federal government created the *State Children’s Health Insurance Program* (SCHI)—later known more simply as the *Children’s Health Insurance Program* (CHIP)—that provides matching funds to states for health insurance for families with children. The program covers uninsured children in low-income families who earn too much to qualify for Medicaid (34).

States are given flexibility in designing their CHIP eligibility requirements and policies within broad Federal guidelines. The NC CHIP program is called NC Health Choice for Children (NCHC). 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, hearing aids, and more (35). In NC, the maximum income limit for participation in the NCHC program is 200% of the Federal Poverty Guideline.

Table 64 presents enrollment figures for NCHC for FY2008-2010. It should be noted that enrollment is directly related to the funding available, which may change at either the Federal or state level.

- In Gates County the *number* of children eligible increased from year to year during the period shown.
- In Gates County the percent of eligible children actually enrolled increased 16% between FY2008 and FY2009, and 29% between FY2009 and FY2010. Despite the increases, in FY2010 approximately 57% of the eligible children in the county were enrolled in Health Choice.

Table 64. NC Health Choice Enrollment (FY2008 through FY2010)

Location	FY2008			FY2009			FY2010		
	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled
Gates County	143	55	38.5	155	69	44.5	173	99	57.2
Regional Average	283	207	63.7	284	218	70.2	282	216	72.9
Jones County	177	145	81.9	180	157	87.2	173	156	90.2
State of NC	131,446	87,234	66.4	140,141	103,624	73.9	143,022	122,536	85.7

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County-Specific Snapshots for NC Medicaid Services, 2006-2010; http://www.ncdhhs.gov/dma/countyreports/index.htm.

Medicaid

Medicaid is a health insurance program for low-income individuals and families who cannot afford health care costs. It serves low-income parents, children, seniors, and people with disabilities. Both coverage and eligibility requirements are different for people with different kinds of needs. Chief among these requirements is low income, which depending on service can range from 51% to 200% of the Federal Poverty Guideline.

Table 65 summarizes data on Medicaid eligibility and expenditures for the period from FY2008 through FY2010.

- The *number* of Gates County residents eligible for Medicaid increased from one year to the next throughout the period cited, but the *percent* eligible remained the same.
- The expenditure/cost per adult enrollee in Gates County fell from each fiscal year to the next.
- Gates County had the lowest (or co-lowest) proportion of Medicaid-eligible residents of the four jurisdictions throughout the period cited, averaging 15%. The average statewide was approximately 16%.

Table 65. Medicaid Eligibility and Expenditures (FY2008 through FY2010)

Location	FY2008			FY2009			FY2010		
	No. Eligible	% Eligible	Average Cost per Adult Enrollee	No. Eligible	% Eligible	Average Cost per Adult Enrollee	No. Eligible	% Eligible	Average Cost per Adult Enrollee
Gates County	1,746	15.0	$6,721	1,788	15.0	$6,643	1,862	15.0	$6,339
Regional Average	3,286	17.1	$6,597	3,441	17.7	$6,673	3,543	17.9	$6,389
Jones County	1,922	19.0	$6,961	2,008	19.0	$7,771	2,081	20.0	$7,130
State of NC	1,397,732	15.0	$7,244	1,500,204	16.0	$7,389	1,577,121	17.0	$7,256

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County-Specific Snapshots for NC Medicaid Services, 2006-2010 (geographies as noted); http://www.ncdhhs.gov/dma/countyreports/index.htm.

The county department of social services is responsible for facilitating its clients' access to the range of Medicaid services for which they may qualify. Table 66 presents local data on Medicaid services facilitated by Gates County DSS from FY2010-11 through October FY2012-13.

Table 66. Medicaid Services Provided by Gates County Department of Social Services (FY2010-11, FY2011-12, and FY2012-13 to date)

Fiscal Year	Applications Taken	Applications Processed	Reviews Processed	Avg. Medicaid Caseload
2010-11	833	1,122	1,187	1,567
2011-12	942	1,139	1,396	1,613
2012-13 (July-October)	257	310	447	1,632

Source: Geoffrey C. Marett, Director, Gates County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 5, 2012.

Health Check Early Periodic Screening, Diagnosis and Treatment

Federal law requires that Medicaid-eligible children under the age of 21 receive any medically necessary health care service covered by the federal Medicaid law, even if the service is not normally included in the NC State Medicaid Plan. This requirement is called Early Periodic Screening, Diagnosis and Treatment (EPSDT). In NC, Health Check EPSDT covers complete medical and dental check-ups, provides vision and hearing screenings, and referrals for treatment (36).

Table 67 presents a four-year summary of the participation of eligible children in the NC HealthCheck program.

- The participation ratio for Gates County children decreased 33% between FY2007-08 and FY2010-11 even as the number of eligible children due initial or periodic Health Check EPSDT services increased 62% during the same period. Similar phenomena were observed in the other three jurisdictions as well.
- The Health Check participation ratio in Gates County was the lowest or second-lowest among the four jurisdictions during each fiscal year cited.

Table 67. Participation in Health Check (EPSDT)
(FY2007-08 through FY2010-11)

Location	FY2007-08			FY2008-09			FY2009-10			FY2010-11		
	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio	No. Eligible	No. Eligibles Due Initial or Periodic Service	Participation Ratio
Gates County	1,173	608	71.2	1,208	655	66.6	1,238	1,035	48.5	1,236	983	47.5
Regional Average	2,181	1,175	72.6	2,235	1,211	71.8	2,282	1,955	47.2	2,296	1,896	46.1
Jones County	1,145	619	84.8	1,199	643	86.0	1,281	1,088	53.0	1,288	1,078	54.6
State of NC	n/a	563,421	77.3	n/a	594,043	80.0	1,185,510	963,619	53.8	1,146,716	961,381	54.7

Note: the participation ratio is calculated by dividing the number of eligibles receiving at least one initial screening service by the number of eligibles who should receive at least 1 initial or period screenings (not shown in the table).
Source: NC Division of Medical Assistance, Statistics and Reports, Health Check Participation Data; http://www.ncdhhs.gov/dma/healthcheck/participationdata.htm.

Medicaid Managed Care: Community Care of North Carolina/Carolina ACCESS

The goal of Medicaid managed care is to create community health networks to achieve long-term quality, cost, access, and utilization objectives. NC's approach to Medicaid managed care is to create medical homes for eligible Medicaid recipients by enrolling them into Community Care of North Carolina/Carolina ACCESS (CCNC/CA). Today CCNC/CA combines Carolina ACCCESS and ACCESS II/III, which are primary care case management health plans (37).

Carolina ACCESS

Carolina ACCESS, implemented in 1991, is NC'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 authorize 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. The program expanded statewide in 1998. Carolina ACCESS created the infrastructure for ACCESS II/III, an enhanced community-based primary care case management health plan.

Carolina ACCESS II/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/III includes local networks comprised of community providers such as primary care practices, hospitals, health departments, departments of social services, and others who have agreed to work together in a public/private partnership to operate as a Carolina ACCESS PCP and provide the care management systems and supports 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 for them. Because health care is planned and provided on the community level, larger community health issues can be addressed. Providers in ACCESS II and III receive a small monetary incentive per member per month; the PCPs are paid a small per member per month care management fee. A majority of Medicaid recipients enrolled in managed care are linked with a CCNC network. There are fourteen networks operating

statewide; Gates County is a member of the Community Care Plan of Eastern Carolina, which also includes 26 other counties in the eastern part of the state.

Table 68 summarizes CCNC/CA enrollment data for the period from 2007-2010.

- The percent of Medicaid eligible persons in Gates County enrolled in CCNC/CA decreased 13% between 2007 and 2010, while the number of county residents enrolled in Medicaid increased by 13% over the same period.
- Statewide, the percent of Medicaid eligible persons enrolled in CCNC/CA averaged approximately 65% over the four-year period cited; region-wide the average was 61%.

Table 68. Community Care of NC/Carolina ACCESS Enrollment (2007-2010)

Location	2007		2008		2009		2010	
	No. Enrolled in Medicaid	% Medicaid Eligibles Enrolled	No. Enrolled in Medicaid	% Medicaid Eligibles Enrolled	No. Enrolled in Medicaid	% Medicaid Eligibles Enrolled	No. Enrolled in Medicaid	% Medicaid Eligibles Enrolled
Gates County	1,651	64	1,746	63	1,788	64	1,862	56
Regional Average	3,210	61	3,286	59	3,441	63	3,543	61
Jones County	1,827	51	1,922	50	2,008	58	2,081	69
State of NC	1,330,485	62	1,397,732	64	1,500,204	67	1,577,121	66

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County-Specific Snapshots for NC Medicaid Services, 2006-2010 (geographies as noted); http://www.ncdhhs.gov/dma/countyreports/index.htm.

Medicare

Medicare is the US government's health insurance program for senior citizens (people 65 years of age or older), certain younger people with specific disabilities, and people with end-stage renal disease. Medicare is an entitlement program and is not based on financial need. Medicare benefits are available to all Americans or their spouses who have paid Social Security taxes through their working years.

Some persons who receive Medicare also qualify for Medicaid; these persons are referred to as "dually enrolled", and tend to be elderly and poor. Table 69 summarizes dual Medicare/Medicaid enrollment data for the period from 2007-2010.

- The highest percentage of dual enrollees every year was in Jones County; the second-highest percentage was in Gates County.

Table 69. Medicare/Medicaid Dual Enrollment (2007-2010)

Location	Percent of Eligibles Dually Enrolled			
	2007	2008	2009	2010
Gates County	22.0	21.0	20.1	18.5
Regional Average	19.4	19.0	18.0	17.4
Jones County	26.9	25.4	24.1	22.9
State of NC	16.7	16.1	15.0	14.5

Source: NC Division of Medical Assistance, Statistics and Reports, Medicaid Data, County Specific Snapshots for NC Medicaid Services; http://www.ncdhhs.gov/dma/countyreports/index.htm.

HEALTH CARE PROVIDERS

Practitioners

One way to judge the supply of health professionals in a jurisdiction is to calculate the ratio of the number of health care providers to the number of persons in the population of that jurisdiction. In NC, there is data on the ratio of active health professionals per 10,000 population calculated at the county level. Table 70 presents those data (which for simplicity's sake will be referred to simply as the "ratio") for Gates County, Jones County, the Albemarle Region, the state of NC, and the US for five key categories of health care professionals: physicians, primary care physicians, registered nurses, dentists and pharmacists. The period covered is 2009-2011.

- Among the jurisdictions being compared, the Gates County ratios were the lowest for all categories of health professionals.
- There was no dentist in Gates County in 2009 and 2010.

Table 70. Active Health Professionals per 10,000 Population (2009-2011)

Location	2009					2010					2011				
	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDSs	RNs	Pharms	MDs	Primary Care MDs	DDS	RNs	Pharms
Gates County	0.9	0.9	0.0	21.5	1.6	0.8	0.8	0.0	18.0	0.8	0.8	0.8	0.8	15.9	0.8
Regional Average	8.0	4.5	1.7	52.0	3.9	8.6	4.6	1.6	49.7	4.2	8.6	3.9	1.7	49.4	4.0
Jones County	25.6	17.7	3.0	52.2	2.9	16.7	9.8	2.0	55.1	3.0	14.5	8.7	1.0	45.5	2.9
State of NC	21.2	9.2	4.4	96.9	9.3	21.7	9.4	4.4	97.3	9.2	22.1	7.8	4.4	98.6	9.5
United States	23.4[2]	8.5[2]	5.3[3]	92.5[3]	8.7[3]	22.7[2]	8.2[2]	5.7[3]	92.0[3]	8.3[3]	22.7[2]	8.2[2]	5.7[3]	92.0[3]	8.3[3]

Abbreviations used: MDs (Physicians), RNs (Registered Nurses), DDSs (Dentists), Pharms (Pharmacists)
[1] Primary Care Physicians are those who report their primary specialty as family practice, general practice, internal medicine, pediatrics, or obstetrics/gynecology
[2] US ratio from US Census Bureau estimates. Comparison data is for date two years previous.
[3] US ratio from Bureau of Labor Statistics. Comparison data matches.
Source for NC Data: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System, North Carolina Health Professions Data Books, Table 14 (2008, 2009, 2010, 2011); http://www.shepscenter.unc.edu/hp/publications.htm.

Since the health professional ratio for dentists in Gates County and the Albemarle region are low to begin with, accessing dental care may be a tremendous problem for Medicaid enrollees. Table 71 lists dental practices in the Albemarle Region (i.e., northeastern NC and southeastern VA) that accept Medicaid and/or NC Health Choice clients. None were located in Gates County. Note that this list was correct at a past point in time but should not necessarily be considered up-to-date at the present time.

Table 71. Dentists in the Albemarle Region Accepting Medicaid/Health Choice Clients (Fall, 2012)

Practice Name/Provider Name	Location	Clients Accepted	Insurance Accepted
Albemarle Regional Health Services Dental Clinic	Camden & Edenton, NC	No information	Medicaid/HC
Attkisson, Wayne P.	Windsor, NC	No information	Medicaid/HC
Bald, Francis A. (Oral Surgery)	Elizabeth City, NC	No information	Medicaid/HC
Bernstein, James Dental Center	Greenville, NC	Children ages 5 and up; adults	Medicaid; sliding fee
Bradley, Jerry	Edenton, NC	No information	Medicaid/HC
Bullock, Steve	Virginia Beach, VA	Children ages up to 13	Medicaid
Burton, Kevin	Greenville, NC	Children and adults	Medicaid
Dandar, Regis A.	Elizabeth City, NC	Children ages 3 and up; adults	Medicaid
Epps, John'e J. (Cosmetic Dentistry)	Ahoskie, Aulander, Elizabeth City, NC	No information	HC
Gilliam, Robert	Elizabeth City, NC	No information	Medicaid/HC
Jones, Clifford	Elizabeth City, NC	Children ages 3 and up; adults	Medicaid/HC
Kaplin, Marvin (Orthodontics)	Chesapeake, VA	Children ages 8-17	Medicaid
Martin, J., IV	Portsmouth, VA	Children ages 1-18	Medicaid
Martin-Tyrrell-Washington District Dental Unit	Plymouth, NC	Children ages 1-20	Medicaid
Morgan, Partick H., Jr.	Currituck, NC	No information	HC
Smile Starters - Medicaid Dental Center	Raleigh, NC	Children ages 1-20	Medicaid
Smith, Jacqueline	Edenton, NC	No information	Medicaid/HC
Solomon, Albert P.	Chesapeake, VA	Children ages 3 and up; adults	Medicaid
Sundin, Allan C.	Virginia Beach, VA	Children ages up to 13	Medicaid
Wuertz, Karen	Elizabeth City, NC	No information	HC

Sources:
Division of Medical Assistance, Medicaid, Find a Doctor, NC Medicaid and NC Health Choice Dental Provider Lists; http://www.ncdhhs.gov/dma/dental/dentalprov.htm.
Lara Snyder, Public Health Education Specialist, Dare County Department of Public Health. Personal communication to Sheila Pfaender, Public Health Consultant, December 18, 2012.
Melissa Stokely, Perquimans County Department of Social Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, November 30, 2012.

Table 72 lists the number of active health professionals in Gates County and the ARHS region, by specialty, for 2011:

- Only the following medical specialists were present in Gates County in 2011: Internist (1), Dentist (1), Dental Hygienist (1), Registered Nurse (19), Nurse Practitioner (1), Licensed Practical Nurse (20), Occupational Therapist (2), Pharmacist (1), Physical Therapy Assistant (1), and Psychological Assistant (2).
- At the regional level there were no general practitioners and only one podiatrist listed in 2011.

Table 72. Number of Active Health Professionals, by Specialty (2011)

Category of Professionals	Gates County	Regional Total
Physicians		
Primary Care Physicians	1	64
Family Practice	0	23
General Practice	0	0
Internal Medicine	1	21
Obstetrics/Gynecology	0	11
Pediatrics	0	9
Other Specialities	0	96
Dentists and Dental Hygienists		
Dentists	1	26
Dental Hygienists	1	29
Nurses		
Registered Nurses	19	823
Nurse Practitioners	1	28
Certified Nurse Midwives	0	6
Licensed Practical Nurses	20	284
Other Health Professionals		
Chiropractors	0	10
Occupational Therapists	2	22
Occupational Therapy Assistants	0	15
Optometrists	0	6
Pharmacists	1	67
Physical Therapists	0	36
Physical Therapy Assistants	1	41
Physician Assistants	0	33
Podiatrists	0	1
Practicing Psychologists	0	12
Psychological Assistants	2	9
Respiratory Therapists	0	32

[1] Numbers reported include those active within the profession and those newly licensed in 2009 with unknown activity status; inactives are excluded.
Source: Cecil G. Sheps Center for Health Services Research, North Carolina Health Professions Data System. Publications. 2011 North Carolina Health Professions Databook; http://www.shepscenter.unc.edu/hp/publications/2011_HPDS_DataBook.pdf.

Hospitals

Table 73, which lists the number of general hospital beds in the four jurisdictions being included in this report, reflects the fact that there is no hospital in either Gates County or Jones County.

Table 73. Number of General Hospital Beds[1] (2004-2010)

Location	2004	2005	2006	2007	2008	2009	2010
Gates County	0	0	0	0	0	0	0
Regional Average	37	34	34	34	34	34	34
Jones County	0	0	0	0	0	0	0
State of NC	20,590	20,338	20,329	20,322	20,443	20,647	20,699

[1] Defined as "general acute care beds" in hospitals; that is, beds which are designated for short-stay use. Excluded are beds in service for dedicated clinical research, substance abuse, psychiatry, rehabilitation, hospice, and long-term care. Also excluded are beds in all federal hospitals and state hospitals.
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 524); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Hospitals in Northeastern North Carolina

Table 74 lists the eight hospitals in northeastern NC that are sometimes accessed by Gates County residents. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

Table 74. Licensed Hospitals in Northeastern NC (February, 2013)

Facility Name	Location	No. Beds	Operating Rooms
Bertie County			
Vidant Bertie Hospital	Windsor	General - 6	Shared inpatient/ambulatory surgery - 2
Chowan County			
Vidant Chowan Hospital	Edenton	General - 49	Shared inpatient/ambulatory surgery - 3
		Nursing Home - 40	Endoscopy - 1
Dare County			
The Outer Banks Hospital, Inc.	Nags Head	General - 21	C-section - 1
			Shared inpatient/ambulatory surgery - 2
			Endoscopy - 2
Hertford County			
Vidant Roanoke-Chowan Hospital	Ahoskie	General - 186	C-section - 1
		Psychiatric - 28	Shared inpatient/ambulatory surgery - 3
			Endoscopy -1
Martin County			
Martin General Hospital	Williamston	General - 49	
Pasquotank County			
Albemarle Hospital	Elizabeth City	General - 182	C-section - 2
			Shared inpatient/ambulatory surgery - 8
			Endoscopy - 3
Pitt County			
Vidant Medical Center	Greenville	General - 748	C-section - 4
		Rehabilitation - 75	Shared inpatient/ambulatory surgery - 26
		Psychiatric - 52	Endoscopy - 2
			Other inpatient - 3
Washington County			
Washington County Hospital	Plymouth	General - 49	Shared inpatient/ambulatory surgery - 2

Source: NC Department of Health and Human Services, Division of Health Service Regulation. Hospitals Licensed by the State of North Carolina; http://www.ncdhhs.gov/dhsr/reports.htm .

Residents of Gates County also may seek medical services in southeastern VA, primarily in the area referred to as the *Tidewater Region*. Table 75 lists hospitals in the cities in this region.

Table 75. Hospitals in Southeastern Virginia (February, 2013)

Hospital	Location
Chesapeake General Hospital	Chesapeake
Hampton VA Medical Center	Hampton
Riverside Behavioral Health Center	Hampton
Sentara Careplex Hospital	Hampton
Mary Immaculate Hospital	Newport News
Riverside Memorial Medical Center	Newport News
Riverside Rehabilitation Institute	Newport News
Children's Hospital of the Kings Daughters	Norfolk
DePaul Medical Center	Norfolk
Lake Taylor Hospital	Norfolk
Sentara Heart Hospital	Norfolk
Sentara Leigh Hospital	Norfolk
Sentara Norfolk General Hospital	Norfolk
Tidewater Psychiatric Institute	Norfolk
Maryview Medical Center	Portsmouth
Naval Medical Center	Portsmouth
Sentara Obici Hospital	Suffolk
Sentara Bayside Hospital	Virginia Beach
Sentara Princess Anne Hospital	Virginia Beach
Sentara Virginia Beach General Hospital	Virginia Beach
Virginia Beach Psychiatric Center	Virginia Beach

Source: The Agape Center, Virginia Hospitals; http://www.theagapecenter.com/Hospitals/Virginia.htm.

Utilization of Hospital Emergency Department Services

The emergency departments (EDs) of hospitals have become providers of convenience, urgency, or last resort for many healthcare consumers and an examination of ED utilization patterns can reveal much about the healthcare resource status of a community. This especially may be true for residents of Gates County which is home to very few medical providers.

The four hospitals partnering in the development of this CHA—Vidant Bertie Hospital (VBER), Vidant Chowan Hospital (VCHO), The Outer Banks Hospital (TOBH) and Albemarle Hospital (AH)—have made available extensive utilization data, some of which will be examined in conjunction with health statistics in a later section of this report. Vidant Roanoke-Chowan Hospital (VROA) also provided utilization data which will be used as appropriate. Presented here are demographic summaries of the population of Gates County residents who were admitted to the emergency departments of Vidant Roanoke Chowan Hospital and Albemarle Hospital in recent years, the two hospitals used most heavily by them. Note that it is likely that many Gates County residents travel to VA for emergency care, but utilization data from hospitals in that state was not available for this report.

Emergency Department Admission Demographics

Table 76 summarizes the total of ED visits by Gates County residents at the two NC hospitals closest to Gates County.

- Note that ED visits rose each year.
- Approximately equal numbers of Gates County residents visited each hospital in the years cited.

Table 76. Emergency Department Admissions, Gates County Residents Vidant Roanoke Chowan Hospital and Albemarle Hospital (FY2010-FY2012)

Hospital	Number of ED Visits		
	2010	2011	2012
Vidant Roanoke-Chowan Hospital	726	801	934
Albemarle Hospital	721	862	986
Total No. ED Visits by Gates County Residents	1,447	1,663	1,920

Source: Vidant Roanoke-Chowan Hospital and Albemarle Health.

Residence (Table 77)

- A significant number of Gates County residents visit the ED of Vidant Roanoke Chowan Hospital, but demographic and diagnosis details for that particular patient base were not available. Therefore, the rest of the ED utilization discussion will focus only on Gates County residents who visit the ED at Albemarle Hospital.
- Over the three-year period cited, an annual average of 2.5% of all Albemarle Hospital Emergency Department admissions of residents of the seven-county ARHS region were residents of Gates County.
- The largest proportion of Gates County residents who were admitted to the Albemarle Hospital ED in each year cited (three-year average of 1.0% of all ED admissions of ARHS region residents) were residents of Sunbury.

Table 77. Percent ED Visits by Patient Residence, Gates County Residents, Albemarle Hospital (FY2010-FY2012)

Location (by ZIP Code)	Percent of ED Visits		
	2010	2011	2012
Corapeake	0.3	0.3	0.3
Eure	0.1	0.1	0.1
Gates	0.3	0.3	0.3
Gatesville	0.2	0.2	0.3
Hobbsville	0.5	0.5	0.6
Roduco	<0.1	<0.1	<0.1
Sunbury	1.1	1.0	1.0
Total Gates County Patients	2.6	2.5	2.5
Total No. ED Visits by ARHS Region Residents	27,939	34,737	39,285

Source: Albemarle Health

Age (Table 78)

- The largest proportion of Gates County residents who were admitted to the Albemarle Hospital ED in each year cited were adults between the ages of 18 and 64. The senior population (people age 65 or older) and pediatric patients (age 0-17) were admitted in approximately equal proportions.

Table 78. Percent ED Visits by Patient Age, Gates County Residents, Albemarle Hospital (FY2010-FY2012)

Age Group	Percent of ED Visits		
	2010	2011	2012
Adult	1.6	1.6	1.6
Pediatric	0.4	0.5	0.5
Senior	0.6	0.4	0.4
Total Gates County Patients	2.6	2.5	2.5
Total No. ED Visits by ARHS Region Residents	27,939	34,737	39,285

Adult = age 18-64; Pediatric = age 0-17; Senior = age 65 and older
Source: Albemarle Health

Race (Table 79)

- Whites and blacks composed approximately equal proportions of Gates County residents admitted to the Albemarle Hospital ED.

Table 79. Percent ED Visits by Patient Race, Gates County Residents, Albemarle Hospital (FY2010-FY2012)

Race/Ethnicity	Percent of ED Visits		
	2010	2011	2012
Asian	0.0	<0.1	0.0
Black	1.4	1.1	1.1
Hispanic	<0.1	<0.1	<0.1
Indian (Native or Alaskan)	<0.1	<0.1	<0.1
Other	<0.1	<0.1	<0.1
Unknown	<0.1	<0.1	<0.1
White	1.1	1.3	1.3
Total Gates County Patients	2.6	2.5	2.5
Total No. ED Visits by ARHS Region Residents	27,939	34,737	39,285

Source: Albemarle Health.

Payer (Table 80)

- Medicaid, Medicare, and Self-Pay were equally frequent as primary payers among Gates County admissions to the AH ED.

Table 80. Percent ED Visits by Payer Group, Gates County Residents, Albemarle Hospital (FY2010-FY2012)

Payer Group	Percent of ED Visits		
	2010	2011	2012
CHAMPUS/Military/VA	<0.1	<0.1	<0.1
Agencies/Commercial/Managed Care/Other	0.6	0.7	0.7
Medicaid	0.5	0.6	0.6
Medicare	0.8	0.6	0.6
Self-pay	0.6	0.6	0.6
Workman's Compensation	<0.1	<0.1	<0.1
Total Gates County Patients	2.6	2.5	2.5
Total No. ED Visits byARHS Region Residents	27,939	34,737	39,285

Source: Albemarle Health

Diagnosis-related emergency department data and inpatient hospitalization data is presented in the Health Statistics section of this report as appropriate.

Gates County Rescue and Emergency Medical Services

Gates Rescue is a nonprofit organization consisting of volunteer and career emergency medical technicians/paramedics and rescue technicians who provide non-emergency and emergency medical care, stabilization, and transport for the sick and injured and perform rescue of individuals from hazardous environments. Working jointly with county fire departments and law enforcement agencies, Gates Rescue acts as an integral part of emergency response by providing countywide heavy rescue, vehicle extrication, land search and rescue, water rescue, and emergency medical services (38).

Gates County Rescue and EMS has provided call summaries for several years (Table 81).

- The number of calls increased every year after 2009.
- The largest total number of calls (941) was associated with traumatic injury. Traumatic injury also accounted for the largest number of calls in every single year.
- Three complaints accounted for the next largest total numbers of calls: respiratory distress (577 calls), chest pain/discomfort (558 calls) and abdominal pain/problems (549 calls).

Table 81. EMS Calls Summary, by Complaint, Gates County Rescue and EMS (2006-2012)

COMPLAINT	2006	2007	2008	2009	2010	2011	2012	TOTAL
Abdominal Pain/Problems	27	38	64	81	86	117	136	549
Airway Obstruction	2	0	3	8	8	12	5	38
Allergic Reaction	5	2	4	0	7	10	8	36
Altered Level of Consciousness	29	16	64	51	71	96	40	367
Behavioral/Psychiatric Disorder	9	7	26	22	41	33	14	152
Burns	1	3	1	3	2	0	0	10
CHF, Pulmonary Edema	6	2	7	15	20	13	6	69
Cardiac Arrest	3	9	14	16	14	21	20	97
Cardiac Rhythm Disturbance	3	1	5	10	12	15	33	79
Chest Pain / Discomfort	26	44	88	74	113	103	110	558
Diabetic Symptoms	7	23	28	19	21	37	64	199
Electrocutions	1	0	0	1	0	0	0	2
Hypertension	7	1	15	16	12	19	17	87
Hyperthermia	2	4	6	5	4	3	0	24
Hypoglycemia	6	2	5	7	9	18	15	62
Hyperglycemia	0	0	0	0	0	0	2	2
Hypovolemia/Shock	2	2	5	3	2	4	2	20
Inhalation Injury	3	0	1	2	0	0	1	7
Obvious Death	1	3	2	9	3	10	2	30
Poisoning/Drug Ingestion	2	1	14	10	8	4	10	49
Pregnancy/OB Delivery	4	5	3	4	8	6	5	35
Respiratory Arrest	1	2	0	1	0	1	0	5
Respiratory Distress	32	39	94	99	105	106	102	577
Seizure	6	17	21	21	20	33	16	134
Stings/Venomous Bites	2	2	1	1	0	1	2	9
Stroke/CVA	8	7	10	8	12	15	11	71
Syncope/Fainting	4	10	29	20	32	21	12	128
Traumatic Injury	37	64	157	198	146	154	185	941
Vaginal Hemorrhage	0	0	2	1	1	0	1	5
Unknown or N/A	71	71	408	294	367	372	481	2,064
Total	307	375	1,077	999	1,124	1,224	1,300	6,406

Source: Stormy Butts, Deputy Chief, Gates County Rescue and EMS. Personal communication to Ashley H. Stoop, Preparedness Coordinator and Safety Officer, Albemarle Regional Health Services, January 10, 2013.

Public Health Department: Albemarle Regional Health Services

Albemarle Regional Health Services (ARHS) is a regional Public Health agency in rural, northeastern NC serving the seven counties of Bertie, Camden, Chowan, Currituck, Gates, Pasquotank and Perquimans. ARHS has provided over 70 years of service to the Albemarle Region.

The regional Public Health agency provides the following healthcare services: immunizations, diabetes care and management, women's preventive health, maternal health, including high-risk perinatal services, child health, WIC and nutrition counseling, pediatric asthma management, services for people with communicable diseases including STDs, adult day health care, children's developmental services, Public Health preparedness and response, public information, interpreter assistance, home health care, and hospice.

Albemarle Regional Health Services also administers the following programs: Environmental Health, Regional Landfill, Solid Waste Authority and Recycling, LifeQuest Worksite Wellness, and the Inter-County Public Transportation Authority. The more than 29 ARHS operational sites

are completely networked by technology to increase the efficiency and effectiveness of service delivery across the agency (39).

Gates County Health Department

Services offered at the Gates County Health Department, physically located in Gates, NC, include: clinical services, WIC, health education and promotion, environmental health, preparedness and response, Albemarle Home Care, Albemarle Hospice, Perquimans-Chowan-Gates (PCG) Landfill and Convenience Sites, Albemarle Solid Waste Management Authority, and Children's Developmental Services Agency.

Clinical Services

- **Adult Health.** 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. The Breast and Cervical Cancer Control Program (BCCCP) provides access to screening services for financially and medically eligible women. The WiseWoman program provides cholesterol and bold pressure check-ups, as well as education to help lower the risk of heart disease and stroke. Women enrolled in BCCCP are eligible for WiseWoman.
- **Child Health.** Primary child health services are provided in an effort to detect problems so that appropriate interventions can begin as early as possible. The focus of *Care Coordination for Children (CC4C***)** is the total well-being of the child; emotional, social, health, and environmental. Local agencies work as a team to ensure that optimal level of care for the child is achieved. The program goal of *Health Check* is to guarantee that Medicaid-eligible children receive all recommended child health services.
- **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. The goal is to have all children fully immunized by two years of age and then to receive recommended booster doses. Adult immunizations include the annual influenza and pneumonia campaign, in addition to all recommended adult immunizations.
- **General Communicable Disease.** Conducts surveillance of various communicable diseases and provides educational counseling for individuals. Presentations and overviews of potential biological, chemical, and nuclear agents can be given by the ARHS Team.
- **Sexually Transmitted Disease.** STD & HIV diagnosis, treatment, and counseling are available on a walk-in basis. There are no fees associated with STD services.
- **Women's Preventive Health.** 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.** Primary Prenatal Health Care services are provided in an effort to reduce infant mortality and ensure that all pregnant women receive the highest level of health care. The health department maintains a close working relationship with the area's private physicians and local hospitals for the provision of deliveries, emergency and specialized care. Referrals are made to the High Risk Perinatal Clinic at the Pasquotank County Health Department. In addition to comprehensive health care, patients receive nutrition education, medical social work intervention, and childbirth preparation and parenting education. *Pregnancy Care Management (PCM)* is an

integral component of the maternal patient's health care services. PCM ensures that all health, social, mental and environmental needs are met.

Women, Infants and Children (WIC)

WIC is a federal program, funded by the US Department of Agriculture, designed to provide food to low-income pregnant, postpartum and breastfeeding women, infants and children until the age of five. The program provides a combination of nutrition education, supplemental foods, breastfeeding promotion and support, and referrals for health care. WIC has proven effective in preventing and improving nutrition related health problems within its population. All WIC clients must meet medical and financial eligibility requirements.

Diabetes Care

Due to the prevalence of diabetes within the region, ARHS provides a comprehensive Diabetes Care Center for individuals living with diabetes and their families. The Albemarle Regional Diabetes Program works to council patients on blood sugar monitoring, physical activity, and proper nutrition. This program incorporates a team approach to diabetes care focusing on medical care, education, and health promotion. Individualized counseling, follow-up, nutrition education, disease management and referral are integral components of the program. The Albemarle Regional Diabetes Care program is recognized by the American Diabetes Association for Quality Self-Management Education.

Health Education and Health Promotion

The Health Education Team is responsible for the assessment and identification of community health issues and problems. While identifying diseases as significant health problems that cause disability, mortality, premature death, and morbidity, Health Education Specialists utilize tools and expertise to analyze demographics and socioeconomic status data of the individual client within the community.

After selecting target populations, Health Education staff assists in planning, implementing, and evaluating educational programs with community health partners to promote and maintain behavioral change with the individual.

The Team is primarily responsible for school and community health education programs, Public Health networking in the communities of care, patient education offered in the clinical setting, mass media education, the development and evaluation of educational materials, agency orientation/staff development, higher education-public health liaison work, coalition building and coordination, and grants management.

Environmental Health Services

ARHS Environmental Health ensures the health and safety of residents while reducing the threat of the spread of communicable diseases through evaluation and education of environmental health policies and regulations.

Programs managed by Environmental Health include: water and sewage inspections, swimming pool inspections, communicable disease investigations, food and lodging inspections, lead investigations, on-site wastewater, the Albemarle Regional Solid Waste Management Authority, and Perquimans-Chowan-Gates Solid Waste Management.

Public Health Preparedness and Response

Through its Public Health Preparedness and Response (PHP&R) program, ARHS aims to work with its constituent communities and local emergency management partners and response agencies to keep everyone safe and prepared for any natural or man-made disaster.

Albemarle Home Care

Albemarle Home Care provides skilled nursing, nurse aide, therapy, and other health care services in the home, working closely with and under the direction of the patient's physician. Albemarle Home Care is a Medicare Certified Home Health agency and a Medicare Certified Hospice, and is accredited by the Accreditation Commission for Health Care, Inc., and provides homecare and hospice services in northeastern NC, including the counties: Gates, Chowan, Perquimans, Pasquotank, Camden, and Currituck.

Albemarle Home Care provides the following services: skilled nursing; physical therapy; speech therapy; occupational therapy; home health aide services; and medical social services.

Albemarle Hospice provides the following services: skilled nursing services; pain and symptom management; personal care by nursing assistants; family education regarding disease process, what to expect, and how to care for a loved one; spiritual and emotional support for patients and their families; bereavement support; prescription medications related to terminal illness; treatments for palliative care; durable medical equipment; medical supplies; respite; and short-term hospital care for symptom control.

Perquimans-Chowan-Gates (PCG) Landfill and Convenience Centers

PCG is a recyclable materials wholesaler. The landfill itself is located in Belvidere, in Perquimans County. The landfill also maintains 13 convenience sites: four in Chowan County, five in Perquimans County, and four in Gates County. The convenience sites accept recyclables, yard waste, scrap metals, appliances, furnishings, household waste, motor oil, oil filters, and antifreeze.

Albemarle 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 currently 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, LLC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region.

All municipal wastes and most of the construction and demolition debris from the Authority's members are landfilled in the East Carolina Environmental Landfill in Bertie County (owned by Republic Services of NC). The waste is primarily sent there through the three transfer stations located in Dare County, Currituck County, and Perquimans County. The towns and counties operate their own solid waste and recycling collection programs.

Children's Developmental Services Agency

The Children's Developmental Services Agency (CDSA) in Elizabeth City is one of 18 early intervention centers providing Infant Toddler services across NC. The counties served include Camden, Chowan, Currituck, Dare, Gates, Hertford, Pasquotank, Perquimans, Tyrrell and Washington. Staff consists of service coordinators and educational specialists, psychologists,

speech-language pathologists, an occupational therapist, and a nurse. The CDSA serves children 0 to 3 years of age. The family, with the help of the CDSA, decides what goals are determined for the individual child. The CDSA monitors the services and makes appropriate changes as needed.

Health Department Utilization Data

ARHS has provided data on the utilization of agency services at the level of each county. Table 82 summarizes the demographic profile of clients who patronized the Gates County Health Department in 2012 compared to comparable averages for all of Albemarle Regional Health Services.

- Children under the age of 18 composed 30% of all Gates County Health Department patients; ARHS-wide the comparable percentage was 31%.
- Persons ages 45-64 composed 20% of all health department patients in Gates County; ARHS-wide the comparable percentage was 19%.
- The largest proportion of Gates County Health Department patients—54%--were white; 45% were African American. African Americans and whites each composed 47% of patients ARHS-wide.
- Females composed 71% of Gates County Health Department patients and 75% of ARHS patients overall.

Table 82. Demographic Profile of Patients, Gates County Health Department and ARHS: Age, Race and Sex (2012)

Demographic Parameter	Unduplicated Counts			
	Gates		Agency-Wide	
	Patients	Visits	Patients	Visits
Age				
0-17	333	471	4,531	7,546
18-24	224	437	2,539	6,093
25-34	144	285	2,317	5,427
35-44	108	156	1,437	2,797
45-54	114	185	1,476	2,636
55-64	105	149	1,265	1,898
65+	75	113	899	1,609
Total	1,103	1,796	14,464	28,006
Race				
American Indian/Alaskan Native	0	0	10	21
Asian	0	0	121	254
Black/African American	495	870	6,388	13,214
Native Hawaiian/Pacific Islander	3	6	14	31
Unknown	12	18	582	1,402
White	593	902	7,349	13,084
Total	1,103	1,796	14,464	28,006
Sex				
Female	785	1,379	10,077	21,094
Male	318	417	4,387	6,912
Total	1,103	1,796	14,464	28,006

Source: Ginger Midgett, Albemarle Regional Health Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 25, 2013.

Table 83 summarizes the payer profile for services utilized by patients of the Gates County Health Department in 2012. The list is organized according to program area.

- The largest proportion of all payers listed in connection with services utilized at the Gates County Health Department (47%) was the "patient pay only" category.
- Adult Health was the Gates County Health Department program with the largest number (239) of "patient pay only" clients.
- Medicaid only or some combination of Medicaid and another payer composed the second largest proportion of all payers, 31%.
- HealthCheck Child Health Physicals was the program with the largest proportion of Medicaid payers (81%), which is expected since HealthCheck is a Medicaid-mandated program.

Table 83. Payer Profile, Gates County Health Department (2012)

Program	Total Unduplicated Patients	Total Visits	Medicaid and Other	Medicaid and Commercial	Medicaid Only	Patient Pay Only	Tricare	Medicare B	Commercial Only	Total Payers Listed
Adult Health	497	649	11	0	43	239	5	42	99	439
Child Health	18	18	0	0	4	5	0	0	0	9
Family Planning	245	595	19	3	58	117	3	0	5	205
HealthCheck Child Health Physica	44	49	1	0	34	7	0	0	1	43
Immunization	357	409	2	1	150	82	4	7	84	330
Maternal	1	1	0	0	0	0	0	0	0	0
Pregnancy Tests	19	20	0	0	9	9	0	0	1	19
STD	105	138	0	0	21	66	1	0	4	92
Tuberculosis	16	16	0	0	0	11	0	0	0	11
TOTAL	1,302	1,895	33	4	319	536	13	49	194	1,148

Source: Ginger Midgett, Albemarle Regional Health Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 25, 2013.

Federally-Qualified Health Centers

The Federally-Qualified Health Center (FQHC) benefit under Medicare was added effective October 1, 1991, when the Social Security Act was amended to qualify "safety net" providers such as community health centers, public housing centers, outpatient health programs funded by the Indian Health Service, and programs serving migrants and the homeless to receive enhanced reimbursement from Medicare and Medicaid, as well as other benefits.

The main purpose of the FQHC Program is to enhance the provision of primary care services in underserved urban and rural communities. FQHCs must serve an underserved area or population, offer a sliding fee scale, provide comprehensive services, have an ongoing quality assurance program, and have a governing board of directors. Certain tribal organizations and FQHC Look-Alikes (an organization that meets PHS Section 330 eligibility requirements, but does not receive grant funding) also may receive special Medicare and Medicaid reimbursement (40).

The US Health Resources and Services Administration (HRSA) lists one FQHC physically located in Gates County as of March 23, 2013: Gateway Community Health Center, in Gatesville (41).

Gateway Community Health Center

Gateway Community Health Centers, Inc. are Federally Qualified Health Centers (FQHC), affiliated with Albemarle Health. The Gateway Centers are supported in part by a grant from the United States Health Resources and Services Administration's (HRSA) Bureau of Primary Health Care. Their goal is to improve the health of low-income Chowan, Gates, and Perquimans County residents by providing access to quality care. Staff at each location offer primary care and other health services on a sliding fee scale based on the patient's income and family size. Gateway Community Health Centers also accept Medicare, Medicaid and most private insurance. There are four facilities in the local network (42):

Gateway Community Health Center of Gatesville (Gatesville, NC)

This clinic, located in Gates County, provides primary and minor emergency care for patients of all ages, including babies and children. Services include sick visits, wellness and preventative visits, chronic disease management, health education, stitches, X-rays, and laboratory and EKG testing. Staff includes a full time Family Practitioner medical doctor, a Family Nurse Practitioner, nurses, and support personnel.

Adolescent Care Clinic (Gatesville, NC)

Located on the campus of Gates County High School, this clinic provides primary care to students 10 to 19 years old and school faculty. Services include sick visits, wellness and preventative visits, chronic disease management, sports physicals, mental health counseling, health education, and laboratory testing. Staff includes a halftime Family Nurse Practitioner, a Registered Nurse, and a Licensed Practical Nurse.

Tyner Clinic (Tyner, NC)

Located inside the Northern Chowan Community Center, this clinic provides primary care to patients 18 years old and up. Services include sick visits, wellness and preventative visits, chronic disease management, health education, and laboratory testing. Staff includes a full time Adult Nurse Practitioner, a Registered Nurse, and support personnel.

Migrant and Seasonal Farm Worker Program (Elizabeth City, NC)

This center, in Spanish *Nuestra Casa de la Comunidad Hispana*, provides assistance and health programing focused on the local farm worker and Hispanic communities. Services include medical field clinics with a bilingual Case Manager, Outreach Worker and Registered Nurse/Family Nurse Practitioner providing health assessments and immunizations as well as HIV testing and TB skin testing; assistance in accessing existing health resources from both public agencies and private organizations; case management; interpretation services; advocacy; health education; and a tutoring program for grades K-5.

Albemarle Health has provided local data on the residence of patients who utilize Gateway Community Health Centers and the payers who cover their visits. Table 81` summarizes the percent of visits by ZIP code; Table 82 summarizes the payers.

According to data in Table 84:

- 72% of Gateway Community Health Center patients lived in in Gates County
- 14% resided in Chowan County
- 11% resided in Pasquotank County

- 3% resided in Perquimans County

Table 84. Residence of Patients of Gateway Community Health Centers, by ZIP Code (2012)

ZIP Code	Town	County	% Patients
27932	Edenton	Chowan	11
27980	Tyner	Chowan	3
27937	Gates	Gates	22
27938	Gatesville	Gates	14
27979	Sunbury	Gates	10
27926	Corapeake	Gates	10
27946	Hobbsville	Gates	8
27935	Eure	Gates	8
27909	Elizabeth City	Pasquotank	11
29744	Hertford	Perquimans	3

Source: Sylvia Boone, Albemarle Health. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 28, 2013.

According to data in Table 85, the largest proportion of patients at Gateway Community Health Centers are self-pay (44%), followed by those covered by commercial insurance (31%).

Table 85. Payers for Patients of Gateway Community Health Centers (2012)

Payer	% Patients
Medicare	10
Medicaid	15
Commercial	31
Self-pay	44

Source: Sylvia Boone, Albemarle Health. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 28, 2013.

School Health

The Gates County Public Schools local education authority (LEA) employs the nurses in the district's schools (43).

Table 86 presents SY2009-10 and SY2010-11 student to school nurse ratios for the four jurisdictions being compared.

- The average student-to-school nurse ratio in Gates County Public Schools for the two-year period cited was 611:1, below the recommended maximum of 750:1.

Table 86. Student to School Nurse Ratio (SY2009-10 and SY2010-11)

Location	Student to School Nurse Ratio	
	SY2009-2010	SY2010-2011
Gates County	620	601
Regional Average	713	712
Jones County	579	569
State of NC	1,185	1,201

Source - NC DHHS, DPH, Women's and Children's Health, Facts & Figures, Data Reports & Publications. Annual School Health Services Reports, End-of-Year-Reports, years as listed. http://www.ncdhhs.gov/dph/wch/stats/.

Table 87 presents local data that Gates County Public Schools provided on school health for SY2011-12. This data, consolidated for the district, is included here primarily to illustrate the number and kinds of health issues with which school nurses must be concerned.

Table 87. School Health Nursing Survey Results, Gates County Public Schools (SY2011-12)

Nature of Activity	Services Provided/ Students Served	Nature of Activity	Services Provided/ Students Served
Health Counseling - Individual Session		**Health Care Procedures Administered (continued)**	
ADD/ADHD	0	Insulin pump	1
Asthma	24	Glucagon injection	1
Child abuse/neglect	0	Nebulizer treatment	4
Chronic illness not otherwise listed	0	Pulse oximeter	0
Depression (situational or chronic)	1	Respirator care	0
Diabetes	11	Shunt care	0
Hygiene	2	Tracheal suctioning (including tracheostomy care)	0
Mental health issues not otherwise listed	0	Stoma care (other than tracheal)	0
Pregnancy	0	Tube feeding	0
Puberty; reproductive health	3	Vagal Nerve Stimulator	0
Seizure disorders	0	Other	5
Severe allergies	0	**Identified Health Conditions among Students (Abridged list)**	
Sickle cell	0	ADD/ADHD	52
Substance abuse (including tobacco, prescription drugs, etc.)	0	Allergies (severe)	19
Suicidal ideation	0	Asthma	196
Violence/bullying	1	Autistic disorders, including Asperger's Syndrome	4
Injury/illness that began or occurred outside school	2	Cardiac condition	17
Student Medications		Cerebral palsy	6
Students on long-term medications	47	Diabetes Type I	4
Students on short-term medications	4	Diabetes Type II	1
Students on PRN (non-emergency) medications	12	Emotional/behavioral/psychiatric disorder not otherwise listed	0
Students on emergency medications	46	Gastrointestinal disorders (Crohn's, celiac disease, IBS, etc.)	6
Health Care Procedures Administered		Hearing loss	8
Blood glucose monitoring	5	Migraine headache	9
Clean intermittent catheterization	0	Obesity >95%ile BMI	0
Central venous line monitoring	0	Renal/adrenal/kidney conditions including Addison's disease	2
Diastat (rectal Valium)	0	Seizure disorder/epilepsy	8
Epinephrine auto injector	6	Sickle cell anemia/Trait	7
Insulin injector	4	Visually impaired (uncorrectable)	4

Source: 2011-12 End of Year School Health Report, Section 2. Terri L. Lewis, Lead School Nurse, Gates County Schools. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 17, 2013.

Long-Term Care Facilities

The NC Division of Aging and Adult Services is the state agency responsible for planning, monitoring and regulating services, benefits and protections to support older adults, persons with disabilities, and their families. Among the facilities under the agency's regulatory jurisdiction are nursing homes, family care homes, and adult care homes. Each category of long-term care is discussed subsequently, but Table 88 lists by name all facilities in Gates County.

Table 88. NC-Licensed Long-Term Care Facilities in Gates County (November, 2012)

Facility Type/Name	Location	# Beds SNF (ACH)[1]	Star Rating (If applicable)
Adult Care Homes/Homes for the Aged			
None			
Family Care Homes			
None			
Nursing Homes/Homes for the Aged			
Down East Health and Rehabilitation Center	Gatesville	80 (23)	n/a

[1] - SNF(ACH) = Maximum number of nursing or adult care home beds for which the facility is licensed.
Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Adult Care Homes, Family Care Homes, Nursing Facilities (by County); http://www.ncdhhs.gov/dhsr/reports.htm.

Nursing Homes

Nursing homes are facilities that provide nursing or convalescent care for three or more persons unrelated to the licensee. A nursing home provides long term care of chronic conditions or short term convalescent or rehabilitative care of remedial ailments, for which medical and nursing care are indicated. All nursing homes must be licensed in accordance with state law by the NC Division of Health Service Regulation Licensure Section (44).

Table 89 presents the number of nursing facility beds in the four jurisdictions being compared. Note that the local figures have not changed in seven years.

- At the time this report was prepared, there was one nursing home listed for Gates County: Down East Health and Rehabilitation Center in Gatesville (currently licensed for 80 beds, not the 70 cited in the table).

Table 89. Number of Nursing Facility Beds (2005-2011)

Location	2005	2006	2007	2008	2009	2010	2011
Gates County	70	70	70	70	70	70	70
Regional Average	118	118	118	118	118	118	118
Jones County	80	80	80	80	80	80	80
State of NC	43,987	44,248	44,210	44,234	44,315	45,143	45,382

Note: this count includes beds licensed as nursing facility beds, meaning those offering a level of care less than that offered in an acute care hospital, but providing licensed nursing coverage 24 hours a day, seven days a week.
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 513); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Adult Care Homes

Adult care homes are residences for aged and disabled adults who may require 24-hour supervision and assistance with personal care needs. People in adult care homes typically need a place to live, some help with personal care (such as dressing, grooming and keeping up with medications), and some limited supervision. Medical care may be provided on occasion but is not routinely needed. Medication may be given by designated, trained staff. These homes vary in size from *family care homes* of two to six residents to *adult care homes* of more than 100 residents. These homes were previously called "domiciliary homes," or "rest homes." The smaller homes, with two to six residents, are still referred to as family care homes. In addition, there are Group Homes for Developmentally Disabled Adults, which are licensed to house two to nine developmentally disabled adult residents (45).

Adult care homes are different from nursing homes in the level of care and qualifications of staff. They are licensed by the state Division of Health Service Regulation (Group Care Section) under State regulations and are monitored by Adult Home Specialists within county departments of social services. Facilities that violate licensure rules can be subject to sanctions, including fines.

In January, 2009, NC Division of Health Services Regulation introduced a "Star Rated Certificate" program to provide consumers with more information about the quality of care offered by the state's adult care homes and family care homes. The Star Rated Certificate program is based on an inspections-related point scale, and ratings range from zero to four stars (46).

- As cited previously, at the time this report was prepared there were no state-licensed adult care homes in Gates County.
- Neither were there any state-licensed family care homes in Gates County.

Alternatives to Institutional Care

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. Table 90 below lists the home care, home health, and hospice providers physically located in Gates County. Note that there may be additional providers that refer to themselves as "home health service (or care) providers"; the table below lists only those licensed by the state.

Table 90. NC-Licensed Home Care, Home Health and Hospice Service Providers in Gates County
(As of March, 2013)

Provider Name	Location
Hertford-Gates Home Health Agency	Gatesville

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Home Care All (by County); http://www.ncdhhs.gov/dhsr/reports.htm.

As noted previously, Albemarle Home Care – Home Health Division provides home care services to Gates County residents out of offices located elsewhere in the ARHS region. Table 91 presents a demographic profile of the clients of Albemarle Home Care – Home Health Division for FY2011-12, including clients from Gates County.

- Approximately 5% of the agency's home health clients lived in Gates County.

Table 91. Demographic Profile of Albemarle Home Care Home Health Division Clients (FY2011-12)

Demographic Parameter	Number of Clients	Demographic Parameter	Number of Clients
County of Residence		***Age (continued)***	
Camden	110	75-84	393
Chowan	293	85+	401
Currituck	267	Unknown	33
Gates	75	***Payer***	
Pasquotank	634	Medicare	980
Perquimans	253	Medicare HMO	31
Total Clients	1,632	Medicaid	472
Age		Medicaid HMO	0
0-17	32	Private Insurance	235
18-40	63	Private Insurance HMO	0
41-59	242	Indigent Non-Pay	7
60-64	126	Other	39
65-74	342	Total Payers	1,764

Source: Ginger Midgett, Albemarle Regional Health Services. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 28, 2013.

Adult Day Care/Adult Day Health Centers

Adult day care provides an organized program of services during the day in a community group setting for the purpose of supporting the personal independence of older adults and promoting their social, physical and emotional well-being. Also included in the service, when supported by funding from the Division of Aging and Adult Services (NCDAAS), are no-cost medical examinations required for admission to the program. Nutritional meals and snacks, as appropriate, are also expected. Providers of adult day care must meet State Standards for Certification, which are administrative rules set by the state Social Services Commission. These standards are enforced by the office of the Adult Day Care Consultant within the NCDAAS. Routine monitoring of compliance is performed by Adult Day Care Coordinators located at county departments of social services. Costs to consumers vary, and there is limited funding for adult day care from state and federal sources (47).

Adult day health services are similar programs to adult day care programs in that they provide an organized program of services during the day in a community group setting to support the personal independence of older adults and promote their social, physical, and emotional well-being. In addition, providers of adult day health services, as the name implies, offer health care services to meet the needs of individual participants. Programs must also offer referral to and assistance in using other community resources and transportation to and from the program may be provided or arranged when needed and not otherwise available. Also included in the service, when supported by funding from the NCDAAS, are medical examinations required for individual participants for admission to day health care services and thereafter when not otherwise available without cost. Food and services to provide a nutritional meal and snacks as appropriate are expected as well (48).

There are no adult day care/day health facilities in Gates County, although there are some in southern tier VA. There is only one day health facility in the ARHS region: DayBreak.

DayBreak

DayBreak, an affiliate of Albemarle Regional Health Services, provides care and support for adults who, due to frailty or physical disability, require assistance during the day. Daybreak provides a range of activities designed to promote social, physical, and emotional well-being. The agency's facility is located in Elizabeth City. Participants may be dropped off by family members, or transportation can be arranged. Services include: instruction/assistance with personal care and health care; nutritious meals and daily snacks; appropriate physical activities; educational/cultural programs; and social/recreational activities (49).

Mental Health Services and Facilities

The unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS). In NC, the mental health system is built on a system of Local Management Entities (LMEs). LMEs are agencies of local government—area authorities or county programs—that are responsible for managing, coordinating, facilitating and monitoring the provision of mental health, developmental disabilities and substance abuse services in the catchment area served. LME responsibilities include offering consumers 24/7/365 access to services, developing and overseeing providers, and handling consumer complaints and grievances (50).

At the time this report was prepared, the LME for Gates County was East Carolina Behavioral Health (ECBH). ECBH serves a total of 19 counties in eastern NC, facilitating mental health services for both children and adults. Services offered include: diagnostic assessment, outpatient therapy, multi-systemic therapy, psychosocial rehabilitation, developmental therapy, intensive in-home services, medication management, substance abuse residential care, day treatment, community respite, group living, supportive living, supportive employment, substance abuse treatment (outpatient and residential), day activity and vocational program for the developmentally disabled, personal assistance, and targeted case management.

Table 92 lists ECBH network providers serving Gates County residents. It should be noted, however, that the list of ECBH providers is a master list of those offering services throughout the LME's 19-county service area; at the present time no network providers were physically located in Gates County.

Table 92. East Carolina Behavioral Health Network Providers Serving Gates County (As of September, 2012)

Provider	Location (Nearest, if Several)	Service	Age Group
A Plus Results Independent Living, Inc.	Plymouth	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Act Medical Group, PA	Numerous	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Albemarle Hospital	Elizabeth City	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Albemarle Psychological Innovations	Elizabeth City	Mental Health	Child/Adult
Anointed Mental Health, LLC	Greenville	Mental Health, Substance Abuse	Child/Adult
ARC of NC	Elizabeth City, Ahoskie	Developmental Disability, Mental Health	Child/Adult
Axford, Mary Claire, LCSW	Nags Head	Mental Health	Child/Adult
Benjamin House Community Services	Elizabeth City	Developmental Disability, Substance Abuse	Child/Adult
Bowens, William C., MD	Elizabeth City	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Buscemi, Cary S. / Sea Oats Counseling	Nags Head	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Career Fulfillment Services, PLLC	Greenville	Mental Health	Child/Adult
Carolinaeast Medical Center	New Bern	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Catholic Charities of the Diocese of Raleigh, Inc.	Hertford	Mental Health	Child/Adult
Chasteen, Athena, LCSW	Elizabeth City	Mental Health, Substance Abuse	Adult
Children and Family Counseling Services	Nags Head	Mental Health	Child/Adult
Crisp, Bryan, MA, LMFT, BCBA	Greenville	Developmental Disability, Mental Health	Child/Adult
Dickinson, Patricia S., PhD	Havelock	Developmental Disability, Mental Health	Child/Adult
Dixon Social Interactive Services, Inc.	Washington	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Dream Provider Care Services, Inc.	Plymouth, Edenton, Columbia	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Eastern Psychiatric & Behavioral Specialists, PLLC	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
ECU Physicians Pediatrics	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
ECU Physcians Psychiatry Outpatient Center	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Evans Health Psychological Services	Ahoskie	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Hoffmier, Elizabeth G., LCSW	Nags Head	Mental Health	Child/Adult
Hunsberger, Hilary K., LCSW	Elizabeth City	Mental Health	Child/Adult
Integrated Family Services	Elizabeth City, Ahoskie	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Jaworski, Jeffrey A., LPC, LCAS	Nags Head	Mental Health, Substance Abuse	Child/Adult
Johnston, Edward Angus, MS, CRC, LCAS, LPC	Greenville	Mental Health, Substance Abuse	Child/Adult
Johnston, Grace G., MSW, LCSW, LCAS	Greenville	Mental Health, Substance Abuse	Child/Adult
Kenyear, Stephanye A., RN, NP, PLLC	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Life, Inc.	Goldsboro	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Making the Difference Services, LLC	Greenville	Developmental Disability, Mental Health	Child/Adult
Martin General Hospital	Williamston	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Medical Park Psychiatric Associates	Greenville	Mental Health	Adult
Minor-Schork, Debra, RN, LLC	Edenton	Mental Health	Adult
Monarch	Manteo	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
New Bern Professional Health Services, PC	New Bern	Developmental Disability, Mental Health	Child/Adult
New Hope Counseling Services, PA	Washington	Mental Health	Child/Adult
OneCare Behavioral Health System	Elizabeth City	Mental Health, Substance Abuse	Child/Adult
Pathways Counseling Center	Elizabeth City	Mental Health, Substance Abuse	Child/Adult
Peele Counseling, PLLC	Nags Head	Mental Health, Substance Abuse	Child/Adult
PORT Human Services	Nags Head	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Precision Health Care Services, Inc.	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Pride in North Carolina	Elizabeth City	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Recovery Innovations - Wellness City	Greenville	Mental Health, Substance Abuse	Adult
Rescare Inc., CNC/Access, Inc	Nags Head	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Roberts, Christopher James, LCSW, LCAS	Manteo	Mental Health, Substance Abuse	Child/Adult
Roberts, Kelly, LCSW	Manteo	Mental Health, Substance Abuse	Child/Adult
Rosenke, Dorothy, PsyD	Elizabeth City	Developmental Disability, Mental Health	Child/Adult
Sandalwood Counseling	Nags Head	Mental Health	Child/Adult
Scott, Jean D., CCSW, LCSW, RN	Elizabeth City	Mental Health	Adult
The Outer Banks Hospital	Nags Head	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Thomas, Elizabeth M., LPC	Elizabeth City	Mental Health	Child/Adult
Vidant Adult Behavioral Health Center	Ahoskie	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Vidant Bertie Hospital	Windsor	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Vidant Chowan Hospital	Edenton	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Vidant Medical Group, UHS Physicians, LLC	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult
Vidant Medical Center	Greenville	Developmental Disability, Mental Health, Substance Abuse	Child/Adult

Source: East Carolina Behavioral Health Provider Network Directory, September 2012

There is a list of NC-licensed mental health *facilities* (not service providers) physically located in Gates County, as shown in Table 93. The facility listed offers supervised living for developmentally disabled adults.

Table 93. NC-Licensed Mental Health Facilities in Gates County (G.S. 122C) (November, 2012)

Operator/Name of Facility	Location	Category	Capacity
Gates Taylor Solid Foundation Facilities, Inc.	Eure	Supervised living, developmentally disabled adult	9

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Mental Health Facilities (G.S. 122C) (by County); http://www.ncdhhs.gov/dhsr/reports.htm .

Other Healthcare Resources

Table 94 lists other healthcare facilities in the Albemarle Region that are licensed by the state of NC. Note that none were physically located in Gates County

- As of March, 2013 there were no NC-licensed ambulatory surgical facilities or nursing pools in the Albemarle Region.
- There were two NC-licensed cardiac rehabilitation facilities in the region: the Cardiopulmonary Rehabilitation Program at Albemarle Hospital in Elizabeth City and HealthSteps in Edenton.

Table 94. Other NC Licensed Healthcare Facilities in the Albemarle Region (As of March, 2013)

Type and Name of Facility	County	Location
Licensed Ambulatory Surgical Facilities		
None		
Licensed Cardiac Rehabilitation Facilities		
Albemarle Hospital Cardio-Pulmonary Rehabilitation Program	Pasquotank	Elizabeth City
HealthSteps	Chowan	Edenton
Licensed Nursing Pools		
None		

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Hospitals (by County); http://www.ncdhhs.gov/dhsr/reports.htm.

Dialysis Centers

Table 95 lists dialysis centers in the Albemarle Region, none of which were physically located in Gates County.

Table 95. Dialysis Centers in the Albemarle Region (2012)

Name of Facility	County	Location	Features
BMA of Windsor	Bertie	Windsor	20 hemodialysis stations, no evening hours
Edenton Dialysis	Chowan	Edenton	17 hemodialysis stations; no evening hours
Elizabeth City Dialysis	Pasquotank	Elizabeth City	24 hemodialysis stations; no evening hours

Source: Dialysis Facility Compare, http://www.Medicare.gov/Dialysis/Include/DataSection/Questions.

Urgent Care Centers

There are no free-standing urgent care centers listed for Gates County. Gates County residents with urgent (and evening, weekend and holiday) health issues are most likely to report to one of the region's hospital.

Healthcare Practitioners in Gates County

As noted previously, very few healthcare providers are physically located in Gates County. Table 96 lists those who are licensed by the appropriate NC Board.

Table 96. Health Care Providers in Gates County

Provider/Practice	Location	Specialty
Pollard Casiano, Rayette D., MD / Gates County Medical Center	Gatesville	Internal Medicine
Epps, John'e Jasper, DDS	Gates	Cosmetic and General Dentistry

Sources:
Licensee Information. NC Medical Board,
http://wwwapps.ncmedboard.org/Clients/NCBOM/Public/LicenseeInformationSearch.aspx.
Licensed Dentists/Hygienists Verification Database Search. NC State Board of Dental Examiners,
http://www.ncdentalboard.org/ncdbe_search.asp

Recreational Facilities

Gates County government does *not* have a Parks and Recreation Department.

Table 97 lists some of the recreational facilities and opportunities in Gates County that were identified via various Internet searches. This list was compiled from public domain sources in April, 2013 and may or may not be current at the present time.

Table 97. Recreational and Cultural Facilities and Opportunities in Gates County

Recreational Facility	Location	Features/Amenities
Public Facilities		
Merchant's Millpond State Park	Gatesville	Mingling of coastal pond and southern swamp forest; canoeing, fishing, camping, hiking, picnicking
Dismal Swamp State Park	South Mills	Lush swamp forest; hiking and mountain biking trails; canoeing and kayaking; visitor center and exhibit hall
Beaver Lake	Eure	World class tournament water ski facility; home of Beaver Lake Ski Club
Chowan River	Various in county	Fishing, boating
Historic Courthouse	Gatesville	Site of the Public Library; plays performed in the former courtroom
Gates County Community Center	Gatesville	Community recreation center; fitness room, games, sports teams, fitness and hobby classes

CHAPTER FOUR: HEALTH STATISTICS

METHODOLOGY

Routinely collected mortality and morbidity surveillance data and behavior survey data can be used to describe the health status of Gates County residents. These data, which are readily available in the public domain, typically use standardized definitions, thus allowing comparisons among county, state and national figures. There is, however, some error associated with each of these data sources. Surveillance systems for communicable diseases and cancer diagnoses, for instance, rely on reports submitted by health care facilities across the state and are likely to miss a number of cases, and mortality statistics are dependent on the primary cause of death listed on death certificates without consideration of co-occurring conditions.

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; that is, 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 others 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 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. Suffice it to know that age-adjusted data are preferred for comparing health data from one population or community 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,* which combines annual data gathered over a multi-year period, usually three or five years. The practice of presenting data that are aggregated 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 jurisdictions like Gates County. The calculation is performed by dividing the number of cases or deaths due to a particular disease over a period of years by the sum of the population size for each of the years in the same period.

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 period by the population size during that period. Typically, the resultant value is multiplied by 100,000 and is expressed as cases per 100,000; sometimes the multiplier is a smaller number, such as 10,000.

Incidence rate is calculated according to the following formula:

(number of new cases/population) x 100,000 = new cases per 100,000 people

The incidence rates for certain diseases, such as cancer, are simple to obtain, since data on newly discovered cases is routinely collected by the NC Central Cancer Registry. However, diagnoses of other conditions, such as diabetes or heart disease, are not normally reported to central data-collecting agencies, so accurate incidence data on these conditions is rare.

Mortality

Mortality is calculated by dividing the number of deaths due to a specific disease in a given period by the population size in the same 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) cause of death is routinely reported on death certificates. However, some error can be associated with cause-of-death classification, since it is sometimes difficult to choose a single underlying cause of death from potentially many co-occurring conditions.

Mortality rate by cause is calculated according to the following formula:

(number of deaths due to a cause/population) X 100,000 = deaths per 100,000 people

Morbidity

Morbidity as used in this report refers generally to the presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the population. Morbidity data usually is presented as a prevalence percentage, or a count, but not a rate.

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 period. Prevalence expresses a proportion, not a rate. Prevalence is often estimated by consulting hospital records; for instance, hospital discharge records available from NC SCHS show the number of residents within a county who use hospital in-patient services for given diseases during a specific period. Typically, these data underestimate the true prevalence of the given disease in the population, since individuals who do not seek medical care or who are diagnosed outside of the hospital in-patient setting are not captured by the measure. Note also that decreasing hospital discharge rates do not necessarily indicate decreasing prevalence; rather they may be a result of a lack of access to hospital care.

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, events or deaths per year (see below), the preferred method for reporting incidence and mortality data is long-term trends using the age-adjusted, multi-year aggregate format. Most trend data used in this report is of that type.

Small Numbers

Year-to-year variance in small numbers of events can make dramatic differences in rates that can be misleading. For instance, an increase from two events one year to four the next could be statistically insignificant but result in a calculated rate increase of 100%. Aggregating annual counts over a five year period before calculating a rate is one method used to ameliorate the effect of small numbers. Sometimes even aggregating data is not sufficient, so the NC State Center for Health Statistics recommends that all rates based on fewer than 20 events—whether covering an aggregate period or not—be considered "unstable", and interpreted only with caution. In recent years, the NC SCHS has suppressed mortality rates based on fewer than 20 events in a five-year aggregate period. Other state entities that report health statistics may use their own minimum reporting thresholds. To be sure that unstable health data do not become the basis for local decision-making, this report will highlight and discuss primarily rates based on 20 or more events in a five-year aggregate period and on 10 or more events in a single year. Where exceptions occur, the narrative will highlight the potential instability of the rate being discussed.

Describing Difference and Change

In describing differences in data of the same type from two populations or locations, or changes over time in the same kind of data from one population or location—both of which appear frequently in this report—it is useful to apply the concept of percent difference or change. While it is always possible to describe difference or change by the simple subtraction of a smaller number from a larger number, the result often is inadequate for describing and understanding the scope or significance of the difference or change. Converting the amount of difference or change to a *percent* takes into account the relative size of the numbers that are changing in a way that simple subtraction does not, and makes it easier to grasp the meaning of the change.

For example, there may be a rate for a type of event (e.g., death) that is one number one year and another number five years later. Suppose the earlier figure is 12.0 and the latter figure is 18.0. The simple mathematical difference between these rates is 6.0. Suppose also there is another set of rates that are 212.0 in one year and 218.0 five years later. The simple mathematical difference between these rates also is 6.0. Although the same, these simple numerical differences are not of the same significance in both instances. In the first example, converting the 6 point difference to a percent yields a relative change factor of 50%; that is, the smaller number increased by half, a large fraction. In the second example, converting the 6 point difference to a percent yields a relative change factor of 2.8%; that is, the smaller number in the comparison increased by a relatively small fraction. In these examples the application of percent makes it very clear that the difference in the first example is of far greater degree than the difference in the second example. This document uses percentage almost exclusively to describe and highlight degrees of difference and change, both positive (e.g., increase, larger than, etc.) and negative (e.g., decrease, smaller than, etc.)

Behavioral Risk Factor Surveillance System (BRFSS)

Gates County residents participate in the state's annual Behavioral Risk Factor Surveillance System (BRFSS) Survey, as part of an aggregate 41-county sample that encompasses the entire eastern third of NC. It is not possible to isolate survey responses from Gates County BRFSS participants without oversampling the county, which rarely occurs. Since the aggregate regional data covers such a diverse area, the results cannot responsibly be interpolated to describe health in Gates County. As a result, BRFSS data will not be used in this document *except* for local BRFSS data manipulated by the CDC to yield a county-level *estimate*.

Final Health Data Caveat

Some data that is used in this report may have inherent limitations, due to sample size, or its age, for example, but is used nevertheless because there is no better alternative. Whenever this kind of data is used, it will be accompanied by a warning about its limitations.

HEALTH RANKINGS

America's Health Rankings

Each year for more than 20 years, America's Health Rankings™, a project of United Health Foundation, has tracked the health of the nation and provided a comprehensive perspective on how the nation—and each state—measures up. America's Health Rankings is the longest running state-by-state analysis of health in the US.

America's Health Rankings are based on several kinds of measures, including *determinants* (socioeconomic and behavioral factors and standards of care that underlie health and well-being) and *outcomes* (measures of morbidity, mortality, and other health conditions). Together the determinants and outcomes help calculate an overall rank. Table 98 shows where NC stood in the 2012 rankings relative to the "best" and "worst" states, where first-ranked is best.

Table 98. Rank of North Carolina in America's Health Rankings (2011)

Location	National Rank (Out of 50)[1]		
	Overall	Determinants	Outcomes
Vermont	1	1	5
North Carolina	33	31	38
Mississippi/Louisiana (tie)	49	49/50	50/49

Source: United Health Foundation, 2011. America's Health Rankings; http://www.americashealthrankings.org/mediacenter/mediacenter2.aspx.

County Health Rankings

Building on the work of *America's Health Rankings*, the Robert Wood Johnson Foundation, collaborating with the University of Wisconsin Population Health Institute, undertook a project to develop health rankings for the counties in all 50 states. In this project, each state's counties are ranked according to health outcomes and the multiple health factors that determine a county's health. Each county receives a summary rank for its health outcomes and health factors and also for the four different types of health factors: health behaviors, clinical care, social and economic factors, and the physical environment.

Table 99 presents the 2013 county rankings for Gates County, the ARHS regional average and Jones County in terms of health outcomes and health factors; Table 100 presents additional detail for these jurisdictions as well as the average for NC and national benchmarks.

- Gates County ranked 84th overall in the state of NC, with favorable rankings for physical environment, social and economic factors and health behaviors, but poor rankings for morbidity, mortality and clinical care.
- Jones County and the ARHS regional average were ranked higher overall than Gates County.

It should be noted that the County Health Rankings serve a limited purpose, since the data on which they are based in some cases is very old and different parameters are measured in different time periods.

Table 99. County Health Rankings (2013)

Location	County Rank (Out of 100)[1]						
	Health Outcomes		Health Factors				Overall
	Mortality	Morbidity	Health Behaviors	Clinical Care	Social & Economic Factors	Physical Environment	
Gates County	74	91	22	67	14	5	84
Regional Average	49	60	57	43	38	26	53
Jones County	56	65	70	55	61	72	62

County Health Rankings and Roadmaps, 2013. University of Wisconsin Population Health Institute; http://www.countyhealthrankings.org/app/north-carolina/2013/rankings/outcomes/overall/by-rank.

Table 100. County Health Rankings Details (2013)

Health Factor		Gates County	*ARHS Regional Average*	Jones County	NC County Average	National Benchmark[1]
Mortality						
	Premature deaths	9,113	8,109	8,375	7,480	5,317
Morbidity						
	Poor or fair health	25%	21%	22%	18%	10%
	Poor physical health days	4.4	4.1	3.6	3.6	2.6
	Poor mental health days	4.0	3.0	3.7	3.4	2.3
	Low birthweight	11.0%	10.5%	10.2%	9.1%	6.0%
Health Factors						
	Health Behaviors					
	Adult smoking	12%	23.5%	N/A	21%	13%
	Adult obesity	35%	33%	35%	29%	25%
	Physical inactivity	30%	28%	33%	25%	21%
	Excessive drinking	8%	11%	6%	13%	7%
	Motor vehicle crash death rate	28	23	28	17	10
	Sexually transmitted infections	377	407	394	441	92
	Teen birth rate	39	44	43	46	21
	Clinical Care					
	Uninsured	18%	0	22%	19%	11%
	Primary Care physicians	12192:1		1693:1	1480:1	1067:1
	Dentists	N/A		N/A	2171:1	1516:1
	Preventable hospital stays	84	68	72	63	47
	Diabetic screening	86%	86%	87%	88%	90%
	Mammography screening	69%	72%	73%	69%	73%
	Social & Economic Factors					
	High school graduation	86%	82%	81%	80%	N/A
	Some college	46%	53%	56%	62%	70%
	Unemployment	7.8%	9.8%	10.9%	10.5%	5.0%
	Children in poverty	24%	27%	33%	25%	14%
	Inadequate social support	N/A	15%	18%	21%	14%
	Children in single-parent households	43%	36%	41%	35%	20%
	Violent crime rate	75	210	N/A	411	66
	Physical Environment					
	Daily fine particulate matter	12.3	12	12.6	12.9	8.8
	Drinking water safety	0%	0%	0%	3%	0%
	Access to recreational facilities	0	5	0	11	16
	Limited access to healthy foods	0%	4%	0%	7%	1%
	Fast food restaurants	25%	47%	67%	49%	27%

Source: County Health Rankings and Roadmaps, 2012. University of Wisconsin Population Health Institute; http://www.countyhealthrankings.org/app/north-carolina/2012/rankings/outcomes/overall.

MATERNAL AND INFANT HEALTH

Pregnancy

The following definitions and statistical conventions will be helpful in understanding the data on pregnancy:

- Reproductive age = 15-44
- Total pregnancies = live births + induced abortions + fetal death at 20+ weeks gestation
- Pregnancy rate = number of pregnancies per 1,000 women of reproductive age
- Fertility rate = number of live births per 1,000 women of reproductive age
- Abortion rate = number of induced abortions per 1,000 women of reproductive age
- Birth rate = number of live births per 1,000 *population (Note that in the birth rate calculation the denominator includes the entire population, both men and women, not just women of reproductive age.)* Since the birth rate is a measure of population growth, it was presented among the demographic data in Chapter One of this report.

Pregnancy, Fertility and Abortion Rates, Women Age 15-44

Table 101 presents total annual pregnancy, fertility and abortion rates for women age 15-44 for the period from 2007-2011.

- The *total pregnancy rate* in Gates County was the lowest among the comparator jurisdictions in every year cited except 2008, when it was second-lowest. The total pregnancy rate in Gates County decreased by 18% overall between 2007 and 2011.
- The *total fertility rate* in Gates County was the lowest among the comparator jurisdictions in every year cited except 2008 when it was second-lowest. The total fertility rate in Gates County decreased by17% overall between 2007 and 2011.
- The *total abortion rate* in Gates County was the lowest among the comparators in 2007, 2008 and 2010. It should be noted however that the low (8.4) abortion rate for Gates County in 2011 was based on a below-threshold number of abortions and likely was unstable.

Table 101. Total Pregnancy, Fertility and Abortion Rates, Ages 15-44 (Single Years, 2007-2011)

Location	Females Ages 15-44														
	2007			2008			2009			2010			2011		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Gates County	65.7	54.4	11.2	60.7	51.1	9.6	62.2	42.8	17.7	66.0	52.0	12.7	53.6	45.2	**8.4**
Regional Average	77.9	65.0	12.4	69.0	56.4	12.3	69.7	56.0	13.2	71.5	57.9	13.3	67.2	56.7	10.2
Jones County	67.1	55.5	11.6	56.9	44.8	12.1	69.3	50.1	18.2	75.8	58.6	16.6	85.7	71.7	13.4
State of NC	84.7	69.1	15.1	83.9	69.1	14.4	78.9	65.1	13.4	76.4	62.7	13.2	73.3	61.5	11.4

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases)
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Beginning in 2010, NC SCHS began reporting stratified pregnancy, fertility and abortion data in a different manner than previously. Prior to 2010 the data was stratified by “total”, “white” and “minority”. After that date and to the present time, the data was stratified by “total”, “White non-Hispanic”, “African-American non-Hispanic”, “Other non-Hispanic”, and “Hispanic”. Because of

this change, stratified data prior to 2010 is not directly comparable to 2010 and 2011 data. Table 102 presents pregnancy, fertility, and abortion rates stratified according to the new model.

- Overall pregnancy and fertility rates in Gates County were highest among white non-Hispanics in 2010 and among African American non-Hispanics in 2011. The same phenomenon was noted in Jones County. Rates among other racial groups in both counties were unstable.
- At the state level in both years pregnancy and fertility rates were highest among Hispanic women and the abortion rate was highest among African American non-Hispanic women.

Table 102. Pregnancy, Fertility and Abortion Rates, Ages 15-44, Stratified by Race/Ethnicity (2010 and 2011)

Location	Females Ages 15-44					
	2010			2011		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Gates County Total	66.0	52.0	12.7	53.6	45.2	**8.4**
White, Non-Hispanic	70.4	59.0	9.2	51.5	45.7	**5.9**
African American, Non-Hispanic	57.7	37.6	20.1	60.0	46.0	**13.9**
Other, Non-Hispanic	**38.5**	**38.5**	**0.0**	**38.5**	**38.5**	**0.0**
Hispanic	**85.7**	**85.7**	**0.0**	**23.3**	**23.3**	**0.0**
Regional Average Total	71.5	57.9	13.3	67.2	56.7	10.2
White, Non-Hispanic	67.1	58.0	8.5	61.3	54.5	6.6
African American, Non-Hispanic	79.8	58.1	21.5	70.8	54.7	15.7
Other, Non-Hispanic	61.3	60.4	0.9	73.2	63.8	9.4
Hispanic	65.6	52.1	13.1	82.1	76.2	5.9
Jones County Total	75.8	58.6	16.6	85.7	71.7	13.4
White, Non-Hispanic	75.9	65.3	10.6	81.8	69.8	**11.0**
African American, Non-Hispanic	71.6	42.9	26.8	88.8	71.8	**17.0**
Other, Non-Hispanic	**166.7**	**166.7**	**0.0**	**200.0**	**200.0**	**0.0**
Hispanic	**90.9**	**64.9**	**26.0**	**80.8**	**70.7**	**10.1**
State of NC Total	76.4	62.7	13.2	73.3	61.5	11.4
White, Non-Hispanic	65.6	57.1	8.2	63.6	56.4	7.0
African American, Non-Hispanic	86.1	61.0	24.4	81.5	59.7	21.1
Other, Non-Hispanic	84.5	71.3	12.8	80.6	69.4	10.9
Hispanic	114.0	99.0	14.7	106.6	94.0	12.2

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases)
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Pregnancy, Fertility and Abortion Rates, Women Age 15-19

Table 103 presents total annual pregnancy, fertility and abortion rates for women age 15-19 ("teens") for the period from 2007-2011.

- The *total pregnancy rate* for Gates County teens was the lowest among the comparator jurisdictions in 2008, 2009, and 2011, and second-lowest in 2010. The total pregnancy rate among Gates County teens decreased by 37% overall between 2007 and 2011.

- The *total fertility rate* among Gates County teens was the lowest or second-lowest among the comparator jurisdictions in every year cited. The total fertility rate among Gates County teens decreased by 23% overall between 2007 and 2011.
- Too many abortion rates were unstable to make comparisons in this age group.

Table 103. Total Pregnancy, Fertility and Abortion Rates, Ages 15-19 (Single Years, 2007-2011)

Location	Females Ages 15-19														
	2007			2008			2009			2010			2011		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Gates County	64.9	44.2	**20.8**	46.7	40.7	**6.1**	44.1	35.2	**6.6**	33.8	37.0	**11.3**	41.2	33.9	**7.3**
Regional Average	68.0	52.3	15.1	49.2	38.6	10.5	55.1	40.9	13.3	47.7	37.9	11.4	41.5	30.7	9.7
Jones County	61.3	55.2	**6.1**	47.0	42.1	**5.0**	47.9	36.6	**8.5**	33.2	**29.9**	**3.3**	49.6	39.0	**10.6**
State of NC	63.0	48.4	14.3	58.6	45.7	12.5	56.0	43.4	12.2	49.7	38.3	11.0	43.8	34.8	8.7

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases)
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 104 presents racially/ethnically stratified pregnancy, fertility and abortion data for teens.

- Most racially/ethnically stratified rates at the county level were unstable.
- Among teens statewide, pregnancy and fertility rates were highest in the Hispanic population, and the abortion rate was highest in the African American non-Hispanic population.

Table 104. Pregnancy, Fertility and Abortion Rates, Ages 15-19, Stratified by Race/Ethnicity (2010 and 2011)

Location		2010			2011		
		Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Gates County	Total	33.8	37.0	**11.3**	41.2	33.9	**7.3**
	White, Non-Hispanic	37.9	**22.7**	**15.2**	**36.6**	**28.5**	**8.1**
	African American, Non-Hispanic	**30.3**	**24.2**	**6.1**	**54.1**	**47.3**	**6.8**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Regional Average	*Total*	47.7	37.9	11.4	41.5	30.7	9.7
	White, Non-Hispanic	44.6	34.3	9.7	29.2	21.6	7.6
	African American, Non-Hispanic	60.8	44.0	16.4	51.1	38.0	12.8
	Other, Non-Hispanic	8.4	0.0	8.4	20.4	20.4	0.0
	Hispanic	0.0	0.0	0.0	55.2	49.8	5.4
Jones County	Total	33.2	**29.9**	**3.3**	49.6	39.0	**10.6**
	White, Non-Hispanic	**43.5**	**43.5**	**0.0**	**42.6**	**28.4**	**14.2**
	African American, Non-Hispanic	**24.4**	**16.3**	**8.1**	**41.3**	**41.3**	**0.0**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**250.0**	**250.0**	**0.0**
	Hispanic	**0.0**	**0.0**	**0.0**	**62.5**	**62.5**	**0.0**
State of NC	Total	49.7	38.3	11.0	43.8	34.8	8.7
	White, Non-Hispanic	34.4	27.2	7.0	30.8	25.2	5.5
	African American, Non-Hispanic	70.2	50.9	18.7	61.6	45.5	15.6
	Other, Non-Hispanic	48.9	38.8	9.5	39.4	32.9	6.4
	Hispanic	82.7	70.6	11.7	71.1	62.7	8.2

Note: Bold type indicates an unstable rate based on a small number (fewer than 10 cases).
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013). Pregnancy and Live Births. Pregnancy, Fertility, & Abortion Rates per 1,000 Population, by Race, by Age; http://www.schs.state.nc.us/SCHS/data/databook/.

Pregnancies among Teens (age 15-19) and Adolescents (under age 15)

Figure 105 presents trend data on the number of teen pregnancies in each jurisdiction from 2003-2011.

Table 105. Number of Teen Pregnancies (Ages 15-19)
(Single Years, 2003-2011)

Location	Number of Pregnancies, Ages 15-19								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gates County	22	21	30	17	25	23	20	15	17
Regional Average	36	38	47	46	43	37	38	31	28
Jones County	21	18	15	23	20	19	17	10	14
State of NC	17,390	18,143	18,259	19,192	19,615	19,398	18,142	15,957	13,909

Source: NC State Center for Health Statistics, North Carolina Health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2011. (Counties and age groups as indicated); http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm.

Figure 106 presents trend data on the number of adolescent pregnancies in each jurisdiction from 2003-2011.

Table 106. Number of Adolescent Pregnancies (Under Age 15)
(Single Years, 2003-2011)

Location	Number of Pregnancies, Age 14 and Younger								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gates County	0	0	0	0	1	0	0	0	0
Jones County	1	0	0	0	0	0	0	0	1
State of NC	443	472	468	405	404	376	324	282	255

Source: NC State Center for Health Statistics, North Carolina Health Data Query System. Pregnancy Data. North Carolina Reported Pregnancy Data. Year: 2003-2011. (Counties and age groups as indicated); http://www.schs.state.nc.us/SCHS/data/preg/preg.cfm.

Pregnancy Risk Factors

High Parity and Short Interval Births

According to the 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. A *short-interval birth* involves a pregnancy occurring less than six months since the last birth. High-parity and short-interval pregnancies can be a physical strain on the mother and sometimes contribute to complicated pregnancies and/or poor birth outcomes.

Table 107 presents data on high-parity and short interval births for the aggregate period 2007-2011.

- Gates County had second-highest percentage of high-parity births in the <30 age category and the second-lowest percentage in the ≥30 age category.
- Among the comparators the percentage of short-interval births was highest in Gates County and lowest in Jones County.

Table 107. High Parity and Short Interval Births
(Single Five-Year Aggregate Period, 2007-2011)

Location	High Parity Births				Short Interval Births	
	Mothers < 30		Mothers ≥ 30			
	No.[1]	%[2]	No.[1]	%[2]	No.[3]	%[4]
Gates County	69	16.8	29	20.3	47	13.6
Regional Average	138	16.7	59	19.5	89	12.6
Jones County	63	16.5	23	20.5	38	11.5
State of NC	70,404	17.2	47,110	21.2	52,600	12.6
Source:	a	a	a	a	b	b

[1] Number at risk due high parity
[2] Percent of all births with age of mother in category indicated
[3] Number with interval from last delivery to conception of six months or less
[4] Percent of all births excluding 1st pregnancies
a - NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Pregnancy and Births, 2007-2011 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 Data Book (2013), Pregnancy and Births, 2007-2011 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/.

Smoking during Pregnancy

Smoking during pregnancy is an unhealthy behavior that may have negative effects on both the mother and the fetus. Smoking can lead to fetal and newborn death, and contribute to low birth weight and pre-term delivery. In pregnant women, smoking can increase the rate of placental problems, and contribute to premature rupture of membranes and heavy bleeding during delivery (51).

Table 108 presents trend data on smoking during pregnancy for the period from 2001-2005 through 2005-2009.

- The percent of births to mothers who smoked during pregnancy in Jones County was the highest among the comparator jurisdictions in every period cited, and did not decline appreciably during the period.
- The percentage of mothers who smoked during their pregnancies fell overall in the state as a whole, but rose in Gates County and the ARHS region.

Table 108. Smoking during Pregnancy Trend
(Five-Year Aggregate Periods, 2001-2005 through 2005-2009)

Location	Number and Percent of Births to Mothers Who Smoked Prenatally									
	2001-2005		2002-2006		2003-2007		2004-2008		2005-2009	
	No.	%	No.	%	No.	%	No.	%	No.	%
Gates County	73	12.7	71	12.0	82	13.6	83	13.4	80	13.3
Regional Average	127	12.4	130	12.3	136	12.6	136	12.3	135	12.5
Jones County	90	19.4	86	18.2	92	19.4	94	19.7	93	19.3
State of NC	76,712	12.9	74,901	12.4	73,887	11.9	72,513	11.5	70,529	11.0

Source: NC State Center for Health Statistics, Vital Statistics, Volume 1 (2005, 2006, 2007,-2008, 2009, 2010, and 2011): Population, Births, Deaths, Marriages, Divorces, (geography as noted), Mother Smoked; http://www.schs.state.nc.us/schs/data/vitalstats.cfm.

Early Prenatal Care

Good pre-conception health and early prenatal care can help assure women the healthiest pregnancies possible.

Table 109 presents trend data on the percent of all women receiving prenatal care in the first trimester for the four jurisdictions included in this report.

- During the entire period cited the highest rates of early prenatal care both overall and among blacks were in Gates County. The lowest rates were noted consistently in Jones County.
- In every jurisdiction, the percent of black women receiving early prenatal care was lower than the total percent.

Table 109. Women Receiving Prenatal Care in the First Trimester (Five-Year Aggregate Periods, 2001-2005 through 2005-2009)

Location	Percent of Women Receiving Prenatal Care in the First Trimester														
	2001-2005			2002-2006			2003-2007			2004-2008			2005-2009		
	Total	Black	Nat. Amer	Total	Black	Nat. Amer	Total	Black	Nat. Amer	Total	Black	Nat. Amer	Total	Black	Nat. Amer
Gates County	87.8	82.8	0.0	87.8	83.4	0.0	88.0	85.0	0.0	87.7	84.5	0.0	87.2	83.7	0.0
Regional Average	85.4	76.6	42.9	85.2	78.1	60.0	85.6	78.2	67.9	85.2	77.8	69.0	85.1	77.1	54.8
Jones County	80.2	69.6	100.0	81.1	74.3	100.0	79.4	71.6	0.0	79.9	75.6	0.0	80.1	73.0	0.0
State of NC	83.5	75.5	79.6	83.0	75.4	79.3	82.5	75.2	78.5	82.1	75.0	77.7	82.1	75.2	77.1

Source: NC State Center for Health Statistics, Basic Automated Birth Yearbook (BABY Book), North Carolina Residents (2005, 2006, 2007,-2008, 2009, 2010, and 2011) (geographies as noted): Table 6 (and others): County Resident Births by Month Prenatal Care Began, All Women; http://www.schs.state.nc.us/schs/births/babybook/ .

Pregnancy Outcomes

Low Birth Weight and Very Low Birth Weight

Low birth weight can result in serious health problems in newborns (e.g., respiratory distress, bleeding in the brain, and heart, intestinal and eye problems), and cause lasting disabilities (mental retardation, cerebral palsy, and vision and hearing loss) or even death (52).

Table 110 presents five-year aggregate data on low birth weight births: infants weighing 2,500 grams (5.5 pounds) or less.

- The percentage of total low birth-weight births in 2006-2010 was highest in Gates County; in 2007-2011 the highest percentage overall was in Jones County.
- Among black non-Hispanics the percent of low birth-weight births was highest in Gates County in 2006-2010 and in Jones County in 2007-2011.
- Among white non-Hispanics the percent of low birth-weight births in both periods was highest in Jones County.
- In Gates County in both periods the percent of low birth-weight births among black non-Hispanics was approximately twice the percent among white non-Hispanics.
- Figures stratified for other racial groups at the county level were largely unstable due to below-threshold numbers of low birth-weight births.

Table 110. Low Birth-Weight Births
(Five Year Aggregate Periods, 2006-2010 and 2007-2011)

Location	Percent of Low Birth Weight (≤ 2,500 Gram) Births									
	2006-2010					2007-2011				
	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic
Gates County	11.2	8.0	16.0	**22.2**	**28.6**	10.8	7.9	15.3	**20.0**	**28.6**
Regional Average	10.3	7.7	14.8	7.3	7.7	9.9	7.5	14.1	6.2	9.3
Jones County	10.6	9.6	**15.1**	**0.0**	**5.6**	11.1	9.4	17.4	**0.0**	**5.7**
State of NC	9.1	7.7	14.4	9.3	6.3	9.1	7.7	14.3	9.4	6.5

Note: Bold type indicates an unstable rate based on a small number (fewer than 20 cases).
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012, 2013), Pregnancy and Births, Low and Very Low Weight Births; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 111 presents five-year aggregate data on very low birth-weight births: infants weighing 1,500 grams (3.3 pounds) or less.

- Racially-stratified figures at the county level were largely unstable due to below-threshold numbers of very low birth-weight births.
- Statewide, the percent of very low birth-weight births was highest among black non-Hispanic women.

Table 111. Very Low Birth-Weight Births
(Five-Year Aggregate Periods, 2006-2010 and 2007-2011)

Location	Percent of Very Low Birth Weight (≤ 1,500 Gram) Births									
	2006-2010					2007-2011				
	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic	Total	White, Non-Hispanic	Black, Non-Hispanic	Other Non-Hispanic	Hispanic
Gates County	**2.9**	**1.9**	**4.5**	**0.0**	**14.3**	**2.7**	**2.0**	**3.8**	**0.0**	**14.3**
Regional Average	2.4	1.6	4.2	1.3	3.9	2.1	1.3	3.9	0.9	4.5
Jones County	**3.5**	**2.2**	**6.7**	**0.0**	**5.6**	4.0	**2.2**	**8.3**	**0.0**	**5.7**
State of NC	1.8	1.3	3.4	1.5	1.2	1.8	1.3	3.3	1.5	1.2

Note: Bold type indicates an unstable rate based on a small number (fewer than 20 cases).
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012, 2013), Pregnancy and Births, Low and Very Low Weight Births; http://www.schs.state.nc.us/SCHS/data/databook/.

Cesarean Section Delivery

Table 112 presents data on the percent of births delivered by Cesarean section.

- As elsewhere in the US, the percentage of Cesarean section delivery rose over time in all jurisdictions except Jones County, where the percentage decreased 5%.
- Over the period cited in the table, Cesarean deliveries rose by 4% in Gates County, 13% region-wide, and 13% statewide.

Table 112. Cesarean Section Deliveries
(Five-Year Aggregate Periods, 2001-2005 through 2007-2011)

Location	Percent of Resident Births Delivered by Cesarean Section						
	2001-2005	2002-2006	2003-2007	2004-2008	2005-2009	2006-2010	2007-2011
Gates County	27.7	27.6	27.8	28.1	29.0	29.8	28.9
Regional Average	28.6	29.5	30.3	30.8	31.3	31.8	32.2
Jones County	33.6	35.8	34.5	34.7	32.8	32.6	31.8
State of NC	27.7	28.7	29.6	30.3	30.9	31.2	31.2

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Pregnancy and Births, Births Delivered by Caesarian Section; http://www.schs.state.nc.us/SCHS/data/databook/ .

Birth Complications

Data on inpatient hospitalizations speaks to the frequency of problems connected with Gates County infants upon birth. Table 113 summarizes some of that data for 2012 as reported by Albemarle Hospital.

- Of 26 hospitalizations associated with infants born to Gates County resident mothers at AH in 2012, 23 (88%) involved “normal” infants. Three additional births (12%) involved infants that presented with “significant” problems.

Table 113. Discharges of Newborn Infants, Gates County Resident Mothers, Albemarle Hospital
(2012)

DRG Code	Diagnosis	Albemarle Hospital
795	Normal newborn	23
793	Full-term neonate with major problems	0
794	Neonate with other significant problems	3

Source: Albemarle Health.

Infant Mortality

Infant mortality is the number of infant (under one year of age) deaths per 1,000 live births.

Table 114 presents infant mortality data.

- Due to infant deaths numbering fewer than 20 per aggregate period in the counties and the ARHS region, stable total infant mortality rates were not available for comparison.
- Statewide, the infant mortality rate decreased 8% between the first aggregate period and the last.

Table 114. Total Infant Deaths
(Five-Year Aggregate Periods, 2001-2005 through 2007-2011)

Location	Infant Deaths													
	2001-2005		2002-2006		2003-2007		2004-2008		2005-2009		2006-2010		2007-2011	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Gates County	**6**	**10.5**	**6**	**10.2**	**6**	**10.0**	**7**	**11.3**	**7**	**11.6**	**7**	**11.8**	**4**	**7.2**
Regional Average	**10**	**9.4**	**10**	**9.2**	**11**	**10.1**	**13**	**11.3**	**14**	**11.8**	**13**	**11.9**	**13**	**11.4**
Jones County	**2**	**4.3**	**4**	**8.5**	**5**	**10.5**	**5**	**10.5**	**7**	**14.5**	**9**	**18.7**	**11**	**22.3**
State of NC	5,056	8.5	5,084	8.4	5,234	8.4	5,333	8.4	5,289	8.3	5,066	7.9	4,899	7.8

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Mortality, Infant Death Rates per 1,000 Live Births; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 115 demonstrates that when stratified by race/ethnicity, infant mortality rates in the local jurisdictions under study all were unstable due to small numbers of infant deaths. State data, however, indicated that the infant mortality rate among African-American non-Hispanics was 2½ times the comparable rate for White non-Hispanics.

Table 115. Infant Deaths, Stratified by Race/Ethnicity
(Five-Year Aggregate Periods, 2006-2010 and 2007-2011)

Location		Infant Deaths			
		2006-2010		2007-2011	
		No.	Rate	No.	Rate
Gates County	Total	**7**	**11.8**	**4**	**7.2**
	White, Non-Hispanic	**4**	**10.7**	**3**	**8.5**
	African American, Non-Hispanic	**3**	**15.0**	**1**	**5.5**
	Other, Non-Hispanic	**0**	**0.0**	**0**	**0.0**
	Hispanic	**0**	**0.0**	**0**	**0.0**
Regional Average	*Total*	**13**	**11.9**	**13**	**11.4**
	White, Non-Hispanic	**5**	**8.0**	**5**	**7.5**
	African American, Non-Hispanic	**7**	**18.3**	**7**	**18.1**
	Other, Non-Hispanic	**0**	**7.5**	**0**	**0.0**
	Hispanic	**1**	**33.9**	**1**	**20.6**
Jones County	Total	**9**	**18.7**	**11**	**22.3**
	White, Non-Hispanic	**2**	**6.2**	**1**	**3.1**
	African American, Non-Hispanic	**6**	**50.4**	**8**	**60.6**
	Other, Non-Hispanic	**0**	**0.0**	**1**	**125.0**
	Hispanic	**1**	**27.8**	**1**	**28.6**
State of NC	Total	5,066	7.9	4,899	7.8
	White, Non-Hispanic	2,074	5.9	2,001	5.7
	African American, Non-Hispanic	2,208	14.7	2,129	14.3
	Other, Non-Hispanic	187	6.3	188	6.2
	Hispanic	597	5.8	581	5.8

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Mortality, Infant Death Rates per 1,000 Live Births; http://www.schs.state.nc.us/SCHS/data/databook/.

LIFE EXPECTANCY

Life expectancy is the average number of additional years that someone at a given age would be expected to live if he/she were to experience throughout life the age-specific death rates observed in a specified reference period. Life expectancies in terms of years of life remaining can be calculated for any age. Because life expectancy is an average, however, a particular person may well die many years before or many years after their "expected" survival, due to life experiences, environment, and personal genetic characteristics.

Life expectancy from birth is a frequently utilized and analyzed component of demographic data. It represents the average life span of a newborn and is considered an indicator of the overall health of a population or community

Life expectancy rose rapidly in the twentieth century due to improvements in public health, nutrition and medicine, and continued progress in these areas can be expected to have further positive impact on life expectancy in the future. Decreases in life expectancy are also possible, influenced mostly by epidemic disease (e.g. plagues of history and AIDS in the modern era), and natural and man-made disasters. One of the most significant influences on life expectancy in populations is infant mortality, since life expectancy at birth is highly sensitive to the rate of death in the first few years of life.

Table 116 presents gender- and race-stratified life expectancy at birth data for all jurisdictions.

- Overall life expectancy at birth in Gates County increased by 2.3 years, from 73.1 to 75.4 (3%), between 1990-1992 and 2008-2010.
- In Gates County average life expectancies at birth for females were higher than life expectancies for males in both periods, and the gap grew from 4.1 years to 6.6 years from one period to the next.
- In 1990-1992 the life expectancy for whites in Gates County exceeded the life expectancy for African-Americans there by 5.5 years, but the gap diminished to 2.2 years by 2008-2010.

Table 116. Life Expectancy at Birth, by Gender and Race (1990-1992 and 2008-2010)

Location	Life Expectancy in Years									
	Person Born in 1990-1992					Person Born in 2008-2010				
	Overall	Male	Female	White	African-American	Overall	Male	Female	White	African-American
Gates County	73.1	71.0	75.1	75.4	69.9	75.4	72.2	78.8	76.1	73.9
Regional Average	73.7	69.8	77.7	75.1	70.3	77.1	73.7	80.5	78.1	74.9
Jones County	74.8	70.8	78.6	76.9	71.6	75.7	72.6	78.8	76.6	73.9
State of NC	74.9	71.0	78.7	76.4	69.8	77.8	75.1	80.4	78.5	74.8

Source: NC State Center for Health Statistics, County-level Data, Life Expectancy, State and County Estimates, Life Expectancy: North Carolina 1990-1992 and 2008-2010, State and County; http://www.schs.state.nc.us/schs/data/lifexpectancy/.

MORTALITY

Leading Causes of Death

This section describes mortality for the 15 leading causes of death, as well as mortality due to five major site-specific cancers. The list of topics and the accompanying data were retrieved from the NC SCHS *County Health Databook*. Unless otherwise noted, the numerical data are age-adjusted and represent five-year aggregate periods.

Table 117 compares mortality rates for the 15 leading causes of death in Gates County, Jones County, the ARHS region, NC and the US for the five-year aggregate period 2007-2011 (or as otherwise noted). The causes of death are listed in descending order of rank in Gates County. Note that the NC SCHS suppressed rates for some causes of death in each county (denoted by "N/A") because the number of deaths fell below the Center's threshold of 20 per five-year aggregate period. For that reason, discussion of some county-level differences will be limited.

Differences between Gates County and NC mortality rates are discussed below.

Relative to mortality rates for the **state of NC**:

- Total cancer and heart disease *ranked the same*, first and second, respectively in the 2007-2011 aggregate period. In Gates County the mortality rate for total cancer was 208.9, 16% *higher* than the state rate of 179.7; the county mortality rate for heart disease was 195.0, 9% *higher* than the state rate of 179.3.
- Chronic lower respiratory disease *ranked the same*, third. The mortality rate for CLRD in Gates County was 61.8, 33% *higher* than the comparable state rate of 46.6.
- Diabetes mellitus ranked *higher* as a leading cause of death in Gates County (4^{th} vs. 7^{th}). The mortality rate for diabetes in Gates County was 48.0, 118% *higher* than the state rate of 22.0.
- Cerebrovascular disease ranked *lower* among leading causes of death (5^{th} vs. 4^{th}). The mortality rate for cerebrovascular disease in Gates County was 36.6, 20% *lower* than the state rate of 46.0.
- Unintentional motor vehicle injury ranked significantly *higher* as a leading cause of death in Gates County (6^{th} vs. 10^{th}). The mortality rate for unintentional motor vehicle injury in Gates County was 33.7, 117% *higher* than the state rate of 15.5.
- Alzheimer's disease ranked slightly *lower* as a cause of death in Gates County (7^{th} vs. 6^{th}). The mortality rate for Alzheimer's disease in Gates County was 33.4, 15% *higher* than the state rate of 29.0.

No other mortality rates were released for Gates County in the 2007-2011 aggregate period because the numbers of deaths for the other causes of death all were below the threshold of 20 in that period.

The overall mortality rate for Gates County (918.3) was 14% *higher* than the overall mortality rate statewide (808.4).

Table 117. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Gates County and Comparators (Single Five-Year Aggregate Period, 2007-2011 or as Noted)[1]

Cause of Death	Gates County			*Regional Average*			Jones County			State of NC			United States (2011)	
	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Rate	Rank
Total Cancer	143	208.9	1	*228*	*195.3*	*1*	139	200.6	2	88,518	179.7	1	168.6	2
Diseases of the Heart	129	195.0	2	*220*	*188.9*	*2*	171	251.2	1	86,099	179.3	2	173.7	1
Chronic Lower Respiratory Disease	40	61.8	3	*51*	*46.1*	*3*	31	44.7	4	22,274	46.6	3	42.7	3
Diabetes Mellitus	32	48.0	4	*31*	*37.8*	*5*	18	N/A	N/A	10,733	22.0	7	21.5	7
Cerebrovascular Disease	23	36.6	5	*51*	*43.7*	*4*	41	62.7	3	21,774	46.0	4	37.9	5
Unintentional Motor Vehicle Injuries	20	33.7	6	*20*	*27.9*	*7*	11	N/A	N/A	7,336	15.5	10	10.9	11
Alzheimer's Disease	21	33.4	7	*30*	*26.9*	*8*	20	29.0	5	13,347	29.0	6	24.6	6
Septicemia	17	N/A	N/A	*14*	*9.7*	*12*	10	N/A	N/A	6,515	13.6	11	10.5	12
All Other Unintentional Injuries	13	N/A	N/A	*31*	*31.2*	*6*	10	N/A	N/A	13,781	29.2	5	38.0	4
Pneumonia and Influenza	13	N/A	N/A	*30*	*14.0*	*11*	13	N/A	N/A	8,455	17.9	9	15.7	8
Nephritis, Nephrotic Syndrome, and Nephrosis	12	N/A	N/A	*19*	*19.8*	*9*	15	N/A	N/A	8,860	18.6	8	13.4	9
Suicide	5	N/A	N/A	*10*	*17.4*	*10*	4	N/A	N/A	5,751	12.1	12	12.0	10
Chronic Liver Disease and Cirrhosis	3	N/A	N/A	*11*	*N/A*	*N/A*	6	N/A	N/A	4,723	9.3	13	9.7	13
Acquired Immune Deficiency Syndrome	2	N/A	N/A	*4*	*N/A*	*N/A*	3	N/A	N/A	1,687	3.5	15	2.4	15
Homicide	2	N/A	N/A	*4*	*N/A*	*N/A*	2	N/A	N/A	2,949	6.3	14	3.6	14
Total Deaths All Causes (Some causes are not listed above)	602	918.3	N/A	*949*	*840.1*	*N/A*	625	938.3	N/A	388,092	808.4	N/A	740.6	N/A
Source:	a	a	b	b	b	b	a	a	b	a	a	b	c	b

[1] Rate = Number of events per 100,000 population, where the Standard = Year 2000 US Population

[2] Denominator is not-sex-specific, but rather is the whole population

a - NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.
b - Calculated
c - National Center for Health Statistics, National Vital Statistics Reports, Volume 61, Number 6 (October 10, 2012), Deaths, Preliminary data for 2011; http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf.

Compared to the average mortality rates for the seven counties in the ARHS region, mortality rates in Gates County were *higher* for every cause of death with a rate listed except:

- Cerebrovascular disease

The overall mortality rate for Gates County (918.3) was 9% *higher* than the regional average overall mortality rate (840.1).

Compared to US mortality rates, mortality rates in Gates County were *higher* for every cause of death with a rate listed except:

- Cerebrovascular disease

The overall mortality rate for Gates County (918.3) was 24% *higher* than the overall US mortality rate (740.6).

Gender Disparities in Leading Causes of Death

In the past, NC CHAs have demonstrated some significant differences in mortality rates between men and women. Table 118 compares gender stratified rates for the 15 leading causes of death in Gates County and its comparator jurisdictions. The usefulness of the table is hampered somewhat by numerous suppressed gender-stratified rates.

In Gates County, mortality *rates for males were higher* than comparable rates for females for:

- Diseases of the heart (by 72%), and
- Total cancer (by 43%).

In Gates County, the overall mortality rate for males (1108.9) was 46% higher than the overall mortality rate for females (760.8).

In NC as a whole, mortality rates for males were higher than comparable rates for females for every leading cause of death except Alzheimer's disease, and the overall mortality rate for males (969.2) was 42% higher than the overall mortality rate for females (684.0).

Table 118. Sex-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death (Single Five-Year Aggregate Period, 2007-2011)

Cause of Death	Gates County				Jones County Rate		Regional Average Rate		State of NC Rate	
	Males		Females							
	Number	Rate	Number	Rate	Males	Females	Males	Females	Males	Females
1. Cancer	75	252.3	68	176.9	292.0	127.3	245.5	161.1	227.4	147.5
2. Diseases of the Heart	75	248.9	54	144.7	302.7	210.3	256.2	136.6	229.4	141.6
3. Chronic Lower Respiratory Disease	22	82.7	18	N/A	N/A	N/A	73.4	35.4	54.9	41.7
4. Diabetes Mellitus	18	N/A	14	N/A	N/A	N/A	61.1	36.0	26.0	18.8
5. Cerebrovascular Diseases	7	N/A	16	N/A	N/A	59.4	64.2	40.5	46.8	44.5
6. Unintentional Motor Vehicle Injuries	13	N/A	7	N/A	N/A	N/A	54.2	N/A	22.9	8.6
7. Alzheimer's Disease	10	N/A	11	N/A	N/A	N/A	N/A	N/A	22.7	32.2
8. Septicemia	10	N/A	7	N/A	N/A	N/A	N/A	N/A	15.0	12.6
9. All Other Unintentional Injuries	8	N/A	5	N/A	N/A	N/A	46.7	19.8	38.8	20.9
10. Pneumonia and Influenza	4	N/A	9	N/A	N/A	N/A	56.7	47.9	20.9	16.1
11. Nephritis, Nephrotic Syndrome and Nephrosis	7	N/A	5	N/A	N/A	N/A	N/A	N/A	22.7	16.0
12. Suicide	5	N/A	0	N/A	N/A	N/A	N/A	N/A	19.6	5.3
13. Chronic Liver Disease and Cirrhosis	2	N/A	1	N/A	N/A	N/A	N/A	N/A	13.2	5.9
14. Acquired Immune Deficiency Syndrome	2	N/A	0	N/A	N/A	N/A	N/A	N/A	4.8	2.3
15. Homicide	1	N/A	1	N/A	N/A	N/A	N/A	N/A	9.8	2.9
Total Deaths All Causes (Some causes are not listed above)	319	1,108.9	283	760.8	1,095.3	802.2	1,042.0	717.7	969.2	684

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source - NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Racial Disparities in Leading Causes of Death

Because of below-threshold numbers of deaths during the period, 2007-2011 age-adjusted mortality rates among Gates County minorities are available only for African Americans, and only for two causes of death (Table 119).

- Among African American non-Hispanics in Gates County the mortality rate for total cancer was 14% *higher* than among white non-Hispanics.
- The heart disease mortality rate among Gates County African American non-Hispanics (191.0) was 4% *lower* than the comparable rate among white non-Hispanics (199.9).
- In Gates County the overall mortality rate for African American non-Hispanics (978.4) was 9% higher than the overall mortality rate for white non-Hispanics (894.6).

Table 119. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death, Gates County (Single Five-Year Aggregate Period, 2007-2011)

Cause of Death	Gates County									
	White, non-Hispanic		African-American, non-Hispanic		Other Races, non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1. Cancer	86	198.8	56	227.2	0	N/A	1	N/A	143	208.9
2. Diseases of the Heart	81	199.9	47	191.0	1	N/A	0	N/A	129	195.0
3. Chronic Lower Respiratory Disease	30	73.6	10	N/A	0	N/A	0	N/A	40	61.8
4. Diabetes Mellitus	13	N/A	19	N/A	0	N/A	0	N/A	32	48.0
5. Cerebrovascular Diseases	11	N/A	12	N/A	0	N/A	0	N/A	23	36.6
6. Unintentional Motor Vehicle Injuries	13	N/A	7	N/A	0	N/A	0	N/A	20	33.7
7. Alzheimer's Disease	10	N/A	11	N/A	0	N/A	0	N/A	21	33.4
8. Septicemia	8	N/A	9	N/A	0	N/A	0	N/A	17	N/A
9. All Other Unintentional Injuries	9	N/A	3	N/A	0	N/A	1	N/A	13	N/A
10. Pneumonia and Influenza	9	N/A	4	N/A	0	N/A	0	N/A	13	N/A
11. Nephritis, Nephrotic Syndrome and Nephrosis	4	N/A	8	N/A	0	N/A	0	N/A	12	N/A
12. Suicide	4	N/A	1	N/A	0	N/A	0	N/A	5	N/A
13. Chronic Liver Disease and Cirrhosis	2	N/A	1	N/A	0	N/A	0	N/A	3	N/A
14. Acquired Immune Deficiency Syndrome	0	N/A	2	N/A	0	N/A	0	N/A	2	N/A
15. Homicide	0	N/A	2	N/A	0	N/A	0	N/A	2	N/A
Total Deaths All Causes (Some causes are not listed above)	364	894.6	235	978.4	1	N/A	2	N/A	602	918.3

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source - NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Age Disparities in Leading Causes of Death

Each age group tends to have its own leading causes of death. Table 120 lists the three leading causes of death by age group for the five-year aggregate period from 2007-2011. (Note that for this purpose it is important to use *non-age adjusted* death rates.)

The leading cause(s) of death in each of the age groups in Gates County were:

- Age Group 00-19: Motor vehicle injuries
- Age Group 20-39: Motor vehicle injuries
- Age Group 40-64: Cancer – all sites
- Age Group 65-84: Cancer – all sites
- Age Group 85+: Diseases of the heart

Noteworthy differences in the age pattern of mortality among the three jurisdictions being compared are as follows:

- Motor vehicle injury was a more prominent cause of death among the 00-19 age group in Gates County than in Jones County or statewide.
- Alzheimer's disease was a more prominent cause of death in the 85+ age group in Gates County than in Jones County or statewide.

Table 120. Three Leading Causes of Death by Age Group, by Unadjusted Death Rates (Single Five-Year Aggregate Period, 2007-2011)

Age Group	Rank	Cause of Death		
		Gates County	Jones County	State of NC
00-19	1	Motor vehicle injuries	Conditions originating in the perinatal period	Conditions originating in the perinatal period
	2	*Conditions originating in the perinatal period*	Motor vehicle injuries	Congenital anomalies (birth defects)
	3	*Cancer-all sites*	*Pneumonia & Influenza*	Motor vehicle injuries
		Congenital anomalies (birth defects)	*Congenital anomalies (birth defects)*	
		Other unintentional injuries	*SIDS*	
20-39	1	Motor vehicle injuries	Diseases of the heart Other unintentional injuries	Motor vehicle injuries
	2	Diseases of the heart	*Cerebrovascular disease*	Other unintentional injuries
	3	Cancer-all sites	*Motor vehicle injuries*	Suicide
40-64	1	Cancer-all sites	Cancer-all sites	Cancer-all sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Motor vehicle injuries	Motor vehicle injuries	Other unintentional injuries
65-84	1	Cancer-all sites	Diseases of the heart	Cancer-all sites
	2	Diseases of the heart	Cancer-all sites	Diseases of the heart
	3	Chronic lower respiratory disease	Chronic lower respiratory diseases	Chronic lower respiratory diseases
85+	1	Diseases of the heart	Diseases of the heart	Diseases of the heart
	2	Cancer-all sites	Cancer-all sites	Cancer-all sites
	3	Alzheimer's disease	Diabetes mellitus	Cerebrovascular disease

Note: Causes for which there were fewer than three (3) deaths in the five-year aggregate period cited are noted in *italic* type.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, Death Counts and Crude Death Rates per 100,000 for Leading Causes of Death, by Age Groups, NC, 2007-2011; http://www.schs.state.nc.us/SCHS/data/databook/.

Differences in mortality statistics will be covered as each cause of death is discussed separately below, in the order of highest Gates County rank to lowest, beginning with total cancer. It is important to emphasize once more that because of below-threshold numbers of deaths there will be no stable county rates for some causes of death, especially among racially stratified groups. Some unstable data will be presented in this document, but always accompanied by cautions regarding its use.

Cancer

Cancer is a term for diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells also can spread to other parts of the body through the blood and lymph systems. If the disease remains unchecked, it can result in death (53).

Total Cancer

Total cancer (cancers of all types) was the leading cause of death in Gates County, the ARHS region, and the state of NC in the 2007-2011 period; it was the second-leading cause of death in Jones County (cited previously).

Malignant Neoplasm Hospitalizations

Table 121 presents the hospital discharge rate trend data for all malignant neoplasms.

- The malignant neoplasm discharge rate in Gates County was the lowest among the jurisdictions being compared in every year cited.

Table 121. All Malignant Neoplasms Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	2.5	2.8	2.0	1.4	2.3	1.6	1.6
Regional Average	3.6	3.4	3.5	2.9	2.9	2.4	2.4
Jones County	6.2	5.4	5.9	6.3	6.1	3.9	4.3
State of NC	3.9	3.9	3.9	3.6	3.4	3.3	3.2

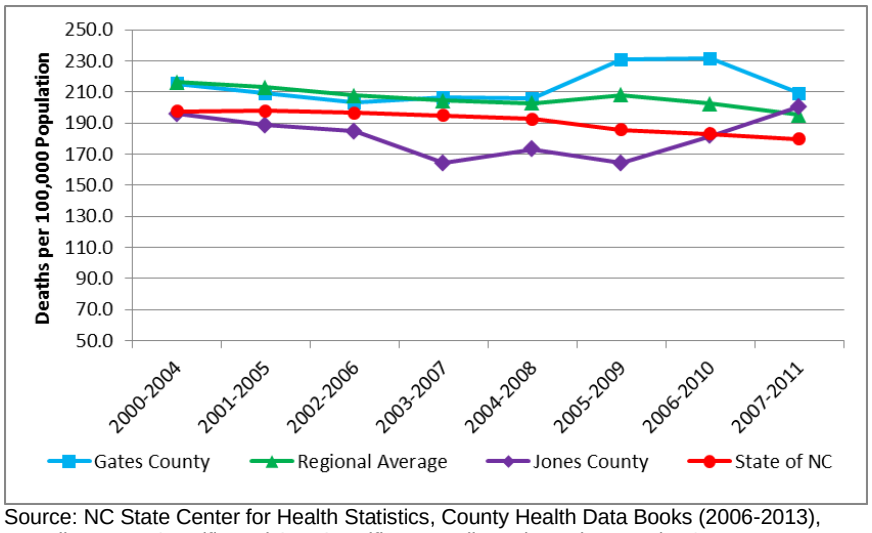
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Cancer Mortality Rate Trend

Figure 7 displays total cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- For the first five aggregate periods cited the total cancer mortality rate in Gates County was close to the same as the comparable rates for the region, but for the last three periods it was the highest among the four comparators.
- Region-wide, statewide, and in Gates County the total cancer mortality rate in 2007-2011 was lower than the rate in 2000-2004. The rate in Gates County fell 3% over the period cited.
- The total cancer mortality rate in Jones County was 2% higher in 2007-2011 than in 2000-2004.

Figure 7. Overall Total Cancer Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Total Cancer Mortality

Table 122 presents total cancer mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of total cancer deaths among some minority populations in Gates County and elsewhere, mortality rates for those groups were suppressed.
- In the jurisdictions where total cancer mortality rates for African American non-Hispanics were available they exceeded comparable rates for white non-Hispanics. For example, in Gates County the total cancer mortality rate among African American non-Hispanics was 14% higher than the rate for white non-Hispanics. In Jones County the rate difference between those two groups was 25%. Region-wide the comparable difference was 22%; statewide the difference was 20%.
- There appeared to be a significant gender difference in total cancer mortality in all jurisdictions; this disparity will be described in greater detail below.

Table 122. Race/Ethnicity-Specific and Sex-Specific Total Cancer Mortality
(Single Five-Year Aggregate Period, 2007-2011)

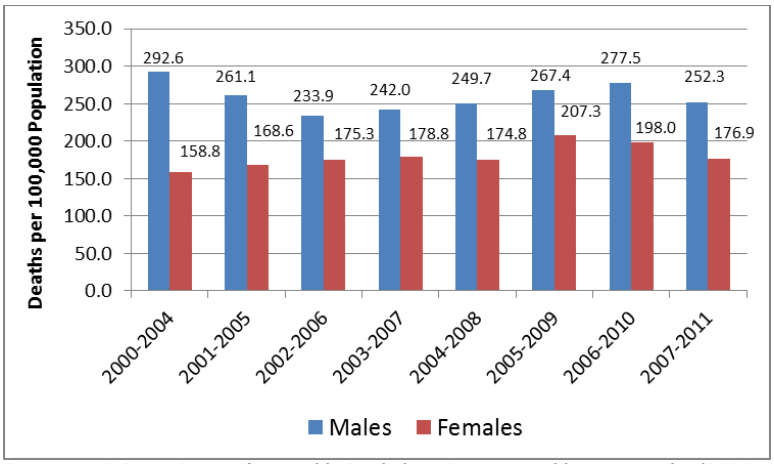
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	86	198.8	56	227.2	0	N/A	1	N/A	75	252.3	68	176.9	143	208.9
Regional Average	152	188.4	75	229.4	0	N/A	1	N/A	121	245.5	107	161.1	228	195.3
Jones County	85	186.8	53	234.3	1	N/A	0	N/A	89	292.0	50	127.3	139	200.6
State of NC	68,577	176.8	17,982	211.4	1,240	120.7	719	65.1	47,193	227.4	41,325	147.5	88,518	179.7

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 8 depicts gender-stratified total cancer mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in total cancer mortality noted in Gates County for 2007-2011 is actually longstanding.
- The total cancer mortality rate for males fluctuated over the period cited, but decreased 14%overall between 2000-2004 and 2007-2011. In the meantime, the comparable rate for females rose 11% overall.

Figure 8. Sex-Specific Total Cancer Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 123 presents total cancer mortality rate data stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of total cancer deaths in some stratified populations the NC SCHS suppressed the related mortality rates.
- In Gates County, the ARHS region and the state of NC the total cancer mortality rates for African American non-Hispanic males exceeded the rate for white non-Hispanic males, and the rates for African American non-Hispanic females exceeded the rates for white non-Hispanic females.
- Total cancer mortality rates were lowest statewide among both male and female Hispanics.

Table 123. Race/Ethnicity and Sex-Specific Total Cancer Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	Rate (Deaths per 100,000 Population)							
	Males				Females			
	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic
Gates County	236.4	281.6	N/A	N/A	169.9	192.7	N/A	N/A
Regional Average	228.1	307.0	N/A	N/A	160.0	181.0	N/A	N/A
Jones County	236.2	415.8	N/A	N/A	145.9	N/A	N/A	N/A
State of NC	220.7	293.2	145.7	72.2	146.6	164.0	103.1	59.4

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Mortality, 2007-2011 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

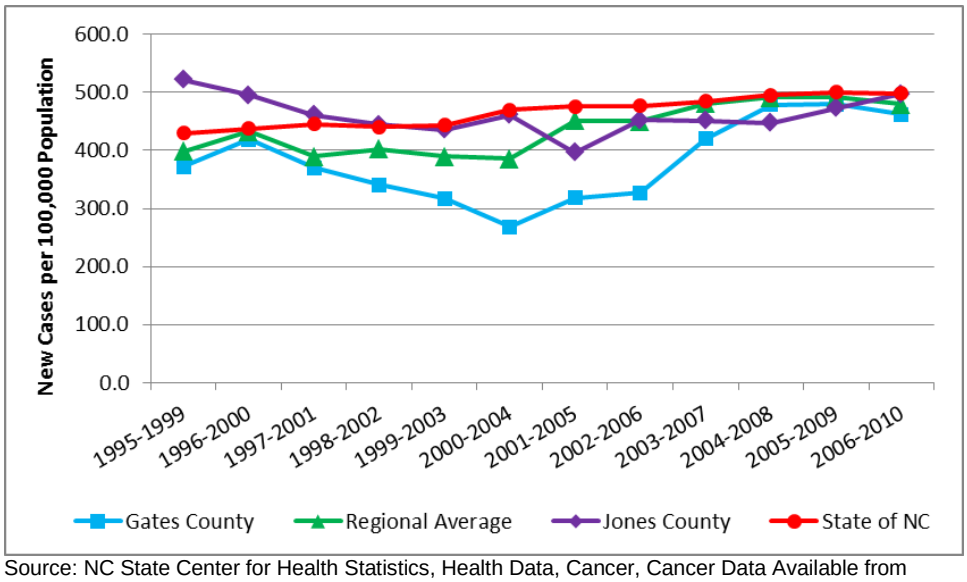
Total Cancer Incidence

Since total cancer is a significant cause of death, it is useful to examine patterns in the development of new cases. The statistic important to understanding the growth of a health problem is *incidence*, the population-based rate at which new cases of a disease occur and are diagnosed (methodology for which was described previously). Cancer incidence rates used in this report were obtained from the NC Cancer Registry, which collects data on newly diagnosed cases from NC clinics and hospitals as well as on NC residents whose cancers were diagnosed at medical facilities in bordering states.

Figure 9 plots the incidence rate trend for total cancer.

- The total cancer incidence rate in Gates County fluctuated over time, but increased 24% in net over the entire period cited, from 372.0 in 1995-1999 to 462.0 in 2006-2010.
- The total cancer incidence rate region-wide increased 20% in net over the same time period, from 398.8 to 479.5.
- The total cancer incidence rate in Jones County fell 5% over the period cited, from 521.8 in 1995-1999 to 496.9 in 2006-2010.
- The total cancer incidence rate for the state of NC increased gradually over the period cited, and was 16% higher in 2006-2010 (498.1) than in 1995-1999 (429.4).

Figure 9. Overall Total Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

To this point the discussions of cancer mortality and incidence have focused on figures for total cancer. In Gates County, as throughout the state of NC, there are four (or five) site-specific cancers that cause most cancer deaths: breast cancer, colon cancer, lung cancer, prostate cancer, and, sometimes, pancreas cancer. It should be noted that males also can have breast cancer, but since the number of cases tends to be small, the mortality rates for breast cancer (and prostate cancer) used here are gender-specific.

Table 124 presents age-adjusted *mortality* data for the five major site-specific cancers for the 2007-2011 period.

- In Gates County, lung cancer was the only site-specific cancer with a stable mortality rate. The numbers of deaths for the other site-specific cancers were below threshold so the mortality rates were suppressed.
- In NC as a whole, lung cancer presents the highest mortality rate, followed by prostate cancer, breast cancer, colon cancer, and pancreas cancer.

Table 124. Mortality for Five Major Site-Specific Cancers
(Single Five-Year Aggregate Period, 2007-2011)

Location	Female Breast Cancer		Prostate Cancer		Lung Cancer		Colon Cancer		Pancreas Cancer	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Gates County	9	N/A	8	N/A	44	64.3	16	N/A	8	N/A
Regional Average	14	27.2	13	34.1	72	64.0	21	19.4	13	10.4
Jones County	5	N/A	6	N/A	51	71.1	11	N/A	9	N/A
State of NC	6,358	22.8	4,385	24.3	27,092	54.5	7,614	15.5	5,184	10.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013). 2007-2011 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates (counties and cancer sites as indicated); http://www.schs.state.nc.us/schs/data/databook/.

Table 125 presents age-adjusted *incidence* data for four of the five site-specific cancers for the 2006-2010 period. (Note that incidence data for pancreas cancer was not available.)

- In Gates County, female breast cancer was the site-specific cancer with the highest incidence rate, followed by prostate cancer, lung cancer, and colon cancer. Cancer incidence rate in the region and the state followed the same pattern as Gates County.
- In Jones County, prostate cancer presented with the highest incidence rate, followed by female breast cancer, lung cancer, and colon cancer.

Table 125. Incidence for Four Major Site-Specific Cancers (Single Five-Year Aggregate Period, 2006-2010)

Location	Female Breast Cancer		Prostate Cancer		Lung Cancer		Colon Cancer	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Gates County	70	193.9	48	142.6	44	63.3	29	43.5
Regional Average	95	167.3	85	159.7	82	70.6	55	48.2
Jones County	47	130.8	48	149.6	54	77.2	33	51.0
State of NC	41,169	155.9	34,733	153.7	36,287	74.8	20,968	43.4

Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013). 2006-2010 NC Cancer Incidence Rates per 100,000 Population Age-Adjusted to the 2000 US Population; http://www.schs.state.nc.us/schs/data/databook/

Multi-year mortality and incidence rate trends for these site-specific cancers will be presented subsequently, as each cancer type is discussed separately. The cancer topics are presented in decreasing order of site-specific cancer mortality rates in the state of NC: lung cancer, prostate cancer, female breast cancer, colon cancer and pancreas cancer.

Lung Cancer

The category of cancer referred to as lung cancer traditionally *also* includes cancers of the trachea and bronchus.

Lung, Trachea and Bronchus Cancer Hospitalizations

Table126 summarizes hospital discharge rate data for trachea, bronchus and lung neoplasms.

- Most Gates County discharge rates for lung cancer were unstable. The state rate fell 33% over the period cited.

Table 126. Malignant Trachea, Bronchus, Lung Neoplasms Hospital Discharge Rate Trend (Single Years, 2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.3**	**0.6**	**0.3**	**0.1**	**0.2**	**0.2**	**0.2**
Regional Average	0.5	0.5	0.7	0.5	0.4	0.5	0.4
Jones County	1.4	1.0	**0.7**	**0.7**	1.1	**0.5**	**0.7**
State of NC	0.6	0.6	0.6	0.5	0.5	0.5	0.4

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS data on Inpatient Hospital Utilization and Charges by Principal Diagnosis, three Gates County residents were hospitalized somewhere in NC for diagnoses of malignant neoplasms of the trachea, bronchus and lung in 2011 (54).

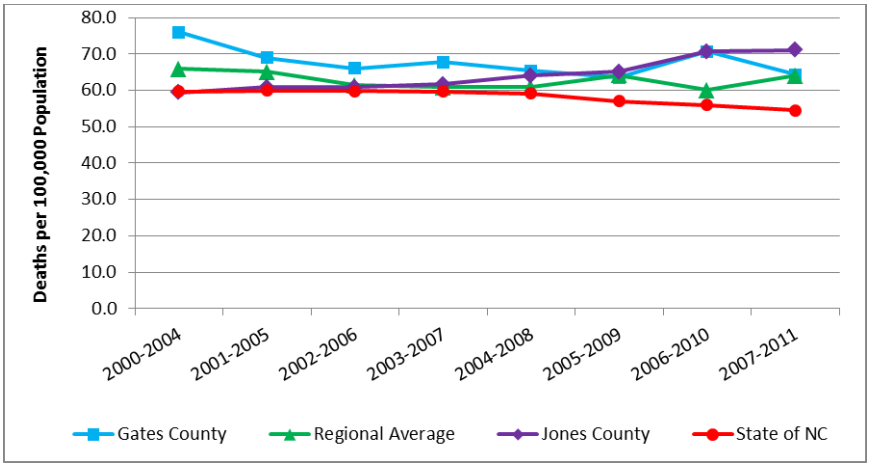
Malignant neoplasms of the trachea, bronchus and lung carry ICD-9 Code 162. In 2012 there were no inpatient discharges in that code category associated with Gates County patients at Albemarle Hospital (the only hospital for which ICD-9 Codes linked to Gates County residents are available).

Lung Cancer Mortality Rate Trend

Figure 10 displays lung cancer mortality rate trends over time.

- The lung cancer mortality rate in Gates County decreased over the period cited, from 76.0 in 2000-2004 to 64.3 in 2007-2011, an overall decrease of 15%.
- The NC lung cancer mortality rate declined over the period, but by only 9%.
- The lung cancer mortality rate for the ARHS region fluctuated over the period cited, but decreased 3% overall between 2000-2004 and 2007-2011.
- The lung cancer mortality rate increased by 20% in Jones County over the same period.

Figure 10. Overall Lung Cancer Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Lung Cancer Mortality

Table 127 presents lung cancer mortality data for the 2007-2011 aggregate period, stratified by race and sex.

- Due to below-threshold numbers of lung cancer deaths among some stratified populations in Gates County and elsewhere, mortality rates for those groups were suppressed.
- Among white non-Hispanic persons, the lung cancer mortality rate was lowest for NC and second-highest for Gates County.

- In the ARHS region, the lung cancer mortality rate for African American non-Hispanics was 23% *lower* than the comparable rate for white non-Hispanics.
- Statewide, the lung cancer mortality rate for African American non-Hispanics was 3% *lower* than the comparable rate for white non-Hispanics.
- There appeared to be a gender difference in lung cancer mortality in three of the four jurisdictions.

Table 127. Race/Ethnicity-Specific and Sex-Specific Lung Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

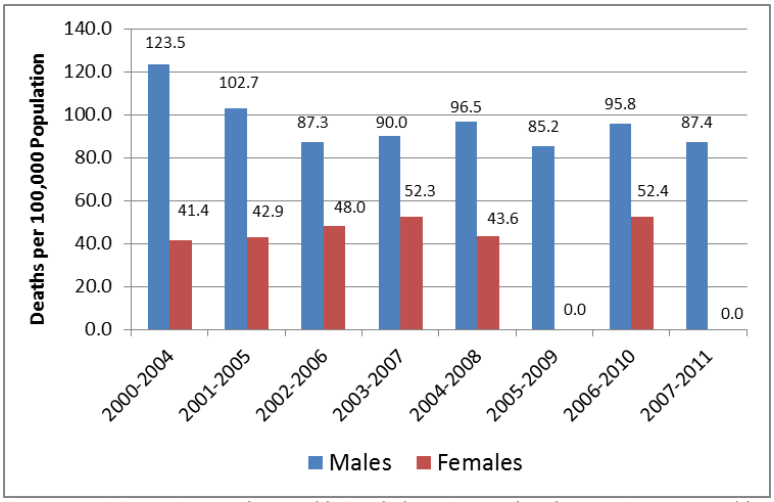
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	31	72.2	13	N/A	0	N/A	0	N/A	25	87.4	19	N/A	44	64.3
Regional Average	54	68.7	18	53.0	0	N/A	0	N/A	44	89.5	29	51.0	72	64.0
Jones County	36	76.4	15	N/A	0	N/A	0	N/A	31	100.9	20	49.5	51	71.1
State of NC	21,946	55.9	4,667	54.1	369	35.4	110	11.9	15,876	74.4	11,216	40.0	27,092	54.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 11 depicts gender-stratified lung cancer mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- Despite mostly unstable or suppressed mortality rates for females, it appears that there was a gender difference in lung cancer mortality in Gates County.
- In 2000-2004, the lung cancer mortality rate for Gates County males was 198% higher than the comparable rate for Gates County females; by 2006-2010 the difference—still significant—had decreased to 83%, mostly because the lung cancer mortality rate among Gates County males fell 29% over the period cited.

Figure 11. Sex-Specific Lung Cancer Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



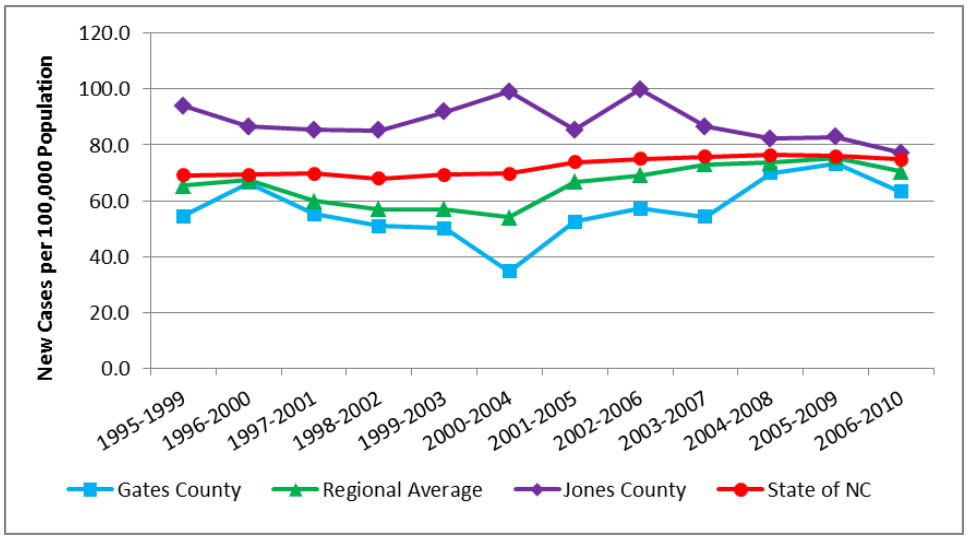
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Lung Cancer Incidence

Figure 12 plots the incidence rate trend for lung cancer.

- Lung cancer incidence rates increased at least slightly over the period cited in all jurisdictions except Jones County, where the rate fell 18%.
- The lung cancer incidence rate in Gates County fluctuated over the period cited, but increased 16% overall, rising from 54.4 in 1995-1999 to 63.3 in 2006-2010.
- The lung cancer incidence rate increased 8% overall region-wide, and 8% statewide.

Figure 12. Lung Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Prostate Cancer

Prostate Cancer Hospitalizations

Table128 summarizes hospital discharge rate data for prostate cancer.

- Most hospital discharge rates for prostate cancer shown in the table were unstable due to small numbers of events.
- Statewide, the discharge rate for prostate cancer was mostly steady at 0.3.

Table 128. Malignant Prostate Neoplasms Hospital Discharge Rate Trend (Single Years, 2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.3**	**0.1**	**0.2**	**0.3**	**0.3**	**0.2**	**n/a**
Regional Average	**0.3**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.3**
Jones County	**0.4**	**0.3**	**0.6**	**0.4**	**0.2**	**0.1**	**0.3**
State of NC	0.3	0.3	0.4	0.3	0.3	0.3	0.3

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS data on Inpatient Hospital Utilization and Charges by Principal Diagnosis, in 2011 there were no hospitalizations of Gates County residents anywhere in NC for treatment of malignant neoplasms of the prostate (54).

Malignant neoplasms of the prostate carry ICD-9 Code 185. In 2012 there was one inpatient discharge in that code category associated with Gates County patients at Albemarle Hospital (the only hospital for which ICD-9 Codes linked to Gates County residents are available).

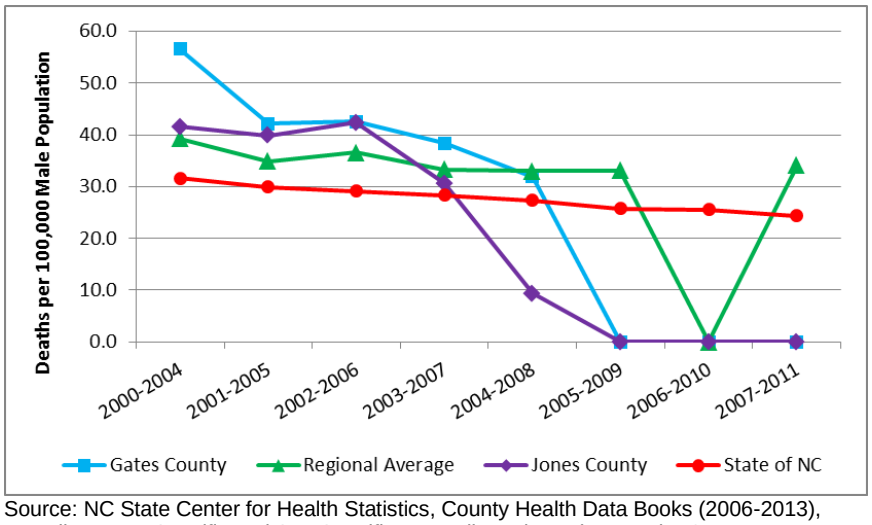
Outpatient/day surgery procedures of the prostate carry the ICD-9 Procedure Code 60 (Operations on Prostate and Seminal Vesicles). Note that these procedures are not necessarily specific to a diagnosis of prostate cancer. According to data provided by Albemarle Hospital, Gates County residents underwent two outpatient procedures there in this category in the period from 2010-2012.

Prostate Cancer Mortality Rate Trend

Figure 13 displays prostate cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The erratic nature of the plot of the county and regional prostate cancer mortality rates is a reflection of the instability in the rates. Note that “zero” plots represent suppressed rates, and not true values of zero.
- The NC prostate cancer mortality rate decreased by 23% over the period cited, from 31.6 in 2000-2004 to 24.3 in 2007-2011.

Figure 13. Overall Prostate Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Racial Disparities in Prostate Cancer Mortality

Table 129 presents prostate cancer mortality rate data for the 2007-2011 aggregate period, stratified by race.

- Due to below-threshold numbers of prostate cancer deaths among racially-stratified populations in all jurisdictions except NC, mortality rates for those groups were suppressed.
- Statewide, the prostate cancer mortality rate for African American non-Hispanic males (55.6) was 2.8 *times* the comparable rate for white non-Hispanic males (19.6).
- Statewide the prostate cancer mortality rates for Other race non-Hispanic men and Hispanic men were 12% and 39% lower, respectively, than the comparable rate for white non-Hispanic men.

Table 129. Race/Ethnicity-Specific Prostate Cancer Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	4	N/A	4	N/A	0	N/A	0	N/A	8	N/A
Regional Average	6	N/A	6	N/A	0	N/A	0	N/A	13	34.0
Jones County	3	N/A	2	N/A	1	N/A	0	N/A	6	N/A
State of NC	2,882	19.6	1,416	55.6	51	17.3	36	12.0	4,385	24.3

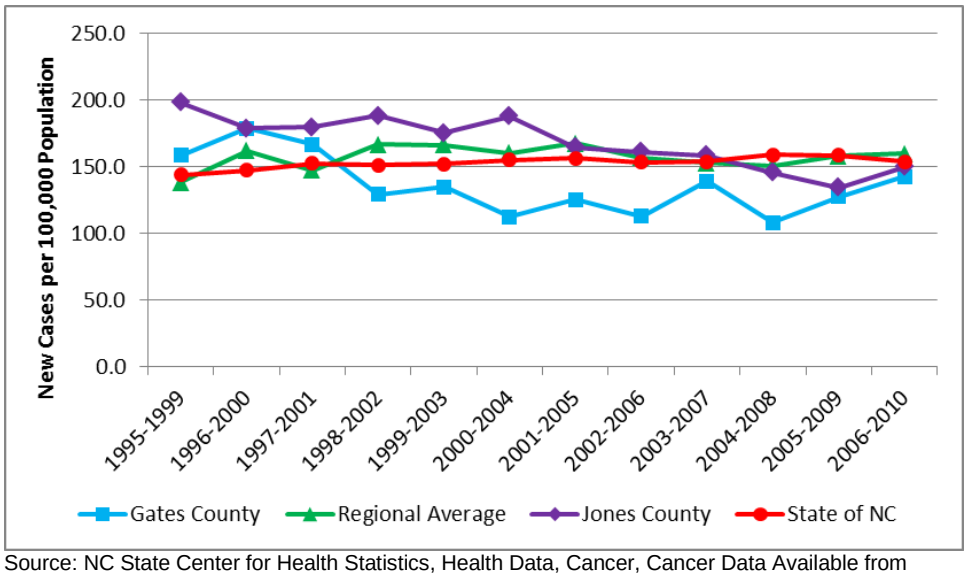
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Prostate Cancer Incidence

Figure 14 plots the incidence rate trend for prostate cancer.

- The prostate cancer incidence rate in Gates County was variable over the period cited, but in the end was 10% lower in 2006-2010 (142.6) than in 1995-1999 (158.4).
- The prostate cancer incidence rate for the region also fluctuated, but ultimately rose 16% over the period cited; the rate for the state rose 7% over the same period.
- The prostate cancer incidence rate in Jones County decreased 24% overall, from 197.8 in 1995-1999 to 149.6 in 2006-2010.

Figure 14. Prostate Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Female Breast Cancer

For purposes of this report, breast cancer pertains exclusively to women, although males can and do contract the disease. There were no breast cancer deaths among males in Gates County or Jones County in the 2007-2011 period; there were, however, 56 breast cancer deaths among males statewide.

Breast Cancer Hospitalizations

Table130 summarizes hospital discharge rate data for breast cancer.

- Hospital discharge rates for breast cancer in the two counties were unstable due to small numbers of hospitalizations; the rates for the region also were unstable since the regional average was based on county rates many of which were unstable.
- Statewide, the discharge rate for female breast cancer was steady at 0.2 until the most recent period, when it fell to 0.1.

Table 130. Malignant Female Breast Neoplasms Hospital Discharge Rate Trend (Single Years, 2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.2**	**0.1**	**0.3**	**0.3**	**n/a**	**0.2**	**n/a**
Regional Average	**0.2**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.1**
Jones County	**0.2**	**0.2**	**0.2**	**0.1**	**0.1**	**n/a**	**0.1**
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS data, in 2011 there were no hospitalizations of Gates County residents anywhere in NC for treatment of malignant neoplasms of the female breast (54).

Malignant neoplasms of the breast carry ICD-9 Code 174. In 2012 there were no inpatient discharges in that code category associated with Gates County patients at Albemarle Hospital (the only hospital for which ICD-9 Codes linked to Gates County residents are available).

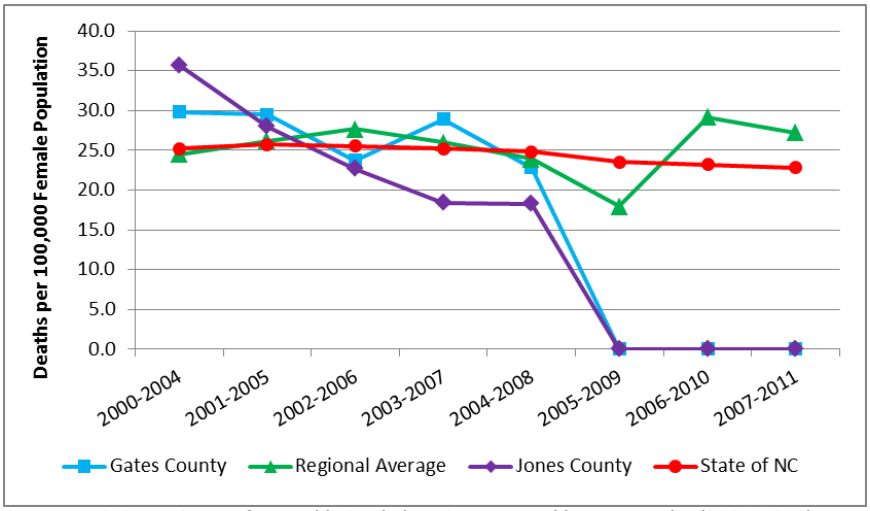
Outpatient/day surgery procedures of the breast carry the ICD-9 Procedure Code 85 (Operations on the Breast). Note that these procedures are not necessarily specific to a diagnosis of breast cancer. According to data provided by Albemarle Hospital, Gates County residents underwent 13 outpatient procedures there in this category in the period from 2010-2012.

Breast Cancer Mortality Rate Trend

Figure 15 displays female breast cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The breast cancer mortality rate in Gates County fluctuated but fell 23% overall between 2000-2004 and 2004-2008 when NC SCHS began to suppress unstable rates. It should be noted that the data plotted as “zero” signifying suppressed rates and not values of true zero.
- Region-wide the breast cancer mortality rate for 2007-2011 (27.2) was 11% higher than the rate for 2000-2004 (24.5).
- The NC breast cancer mortality rate declined 10% over the period cited, from 25.2 to 22.8.
- Although breast cancer mortality rates in Jones County fell dramatically between 2000-2004 and 2004-2008, it should be noted that all the data points were either unstable or suppressed.

Figure 15. Overall Female Breast Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Racial Disparities in Breast Cancer Mortality

Table 131 presents breast cancer mortality rate data for the 2007-2011 aggregate period, stratified by race.

- Due to below-threshold numbers of breast cancer deaths among stratified groups in Gates County and elsewhere, NC SCHS suppressed the associated mortality rates, leaving no data to compare.
- Statewide, the breast cancer mortality rate for African American non-Hispanic women was 40% *higher* than the comparable rate for white non-Hispanic women, and the rates for Other race non-Hispanic women and Hispanic women were 40% and 60% lower, respectively, than the comparable rate for white non-Hispanic women.

Table 131. Race/Ethnicity-Specific Female Breast Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

Location	Rate (Deaths per 100,000 Female Population)			
	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic
Gates County	N/A	N/A	N/A	N/A
Regional Average	N/A	N/A	N/A	N/A
Jones County	N/A	N/A	N/A	N/A
State of NC	21.5	30.1	11.9	8.5

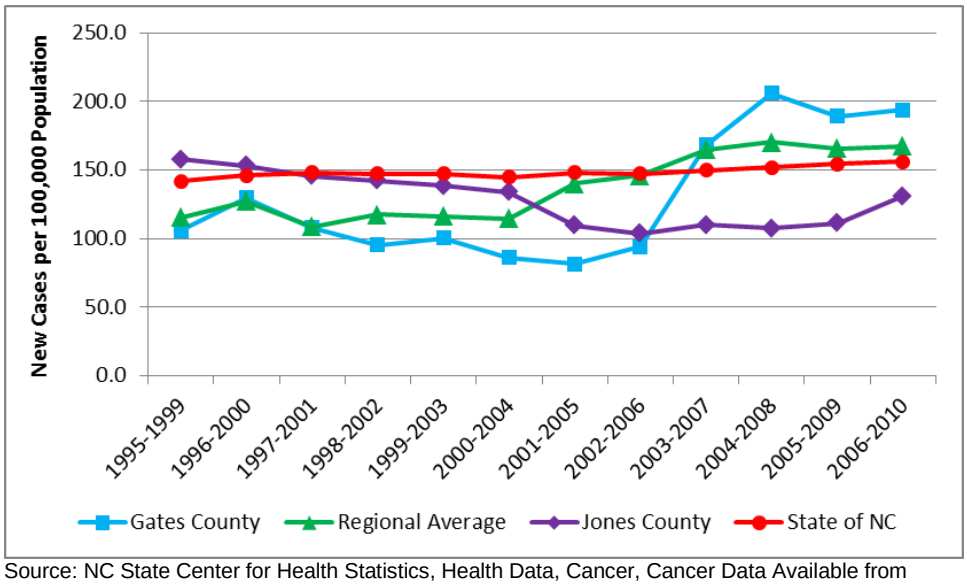
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Breast Cancer Incidence

Figure 16 plots the incidence rate trend for breast cancer.

- Breast cancer incidence rates increased at least slightly in every jurisdiction over the period cited.
- There was dramatic, inexplicable increase in the breast cancer incidence rate in Gates County, where the breast cancer incidence rate rose 119% between 2002-2006 and 2004-2008. Sometimes incidence rates increase immediately following surveillance campaigns, but it is not clear whether or not this is what happened in Gates County.
- The breast cancer incidence rate in Jones County fell 17% over the period cited.
- Over the period cited, the breast cancer incidence rate increased 45% region-wide, and 10% statewide.

Figure 16. Breast Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Colon Cancer

The category of cancer referred to as colon cancer (sometimes referred to as *colorectal cancer*) traditionally *also* includes cancers of the rectum and anus.

Colon Cancer Hospitalizations

Table132 summarizes hospital discharge rate data for malignant neoplasms of the colon, rectum and anus. All of the rates for Gates County and the ARHS region were unstable, as were most of the rates for Jones County.

Table 132. Malignant Colon, Rectum and Anus Neoplasms Hospital Discharge Rate Trend (Single Years, 2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.8**	**0.8**	**0.1**	**0.3**	**0.4**	**0.1**	**0.2**
Regional Average	**0.5**	**0.7**	**0.6**	**0.5**	**0.5**	**0.3**	**0.4**
Jones County	**0.7**	**0.4**	1.0	**0.7**	**0.7**	**0.3**	**0.4**
State of NC	0.5	0.5	0.5	0.4	0.4	0.4	0.4

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS data on Inpatient Hospital Utilization and Charges by Principal Diagnosis, three Gates County residents were hospitalized somewhere in NC with diagnoses of malignant neoplasms of the colon, rectum and anus in 2011 (54).

Malignant neoplasms of the colon, rectum and anus carry ICD-9 Codes 153 and 154. In 2012 there was one inpatient discharge in those code categories associated with Gates County patients at Albemarle Hospital (the only hospital for which ICD-9 Codes linked to Gates County residents are available).

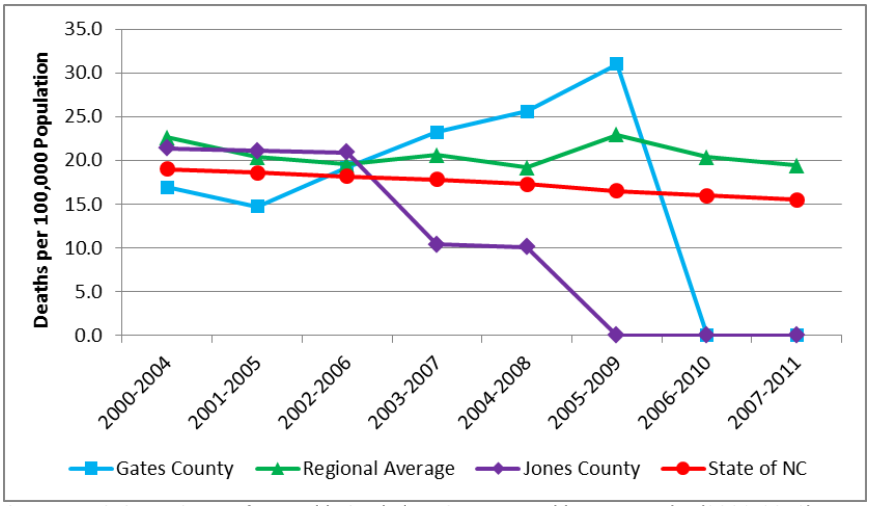
There are several diagnostic procedures routinely performed to diagnose colon cancer, including sigmoidoscopy and colonoscopy. Those procedures, as well as others that are more invasive, are assigned the ICD-9 procedure code 45.2, Diagnostic Procedures on the Large Intestine. In addition, a colonoscopy may also include excision of polyps or other tissue coincident with the examination; that procedure is coded 45.4. According to data provided by Albemarle Hospital, there were 114 total procedures there in these categories performed among Gates County residents in the period from 2010-2012.

Colon Cancer Mortality Rate Trend

Figure 17 displays colon cancer mortality rate trends over time for the four jurisdictions being compared in this CHA.

- The colon cancer mortality rate in Gates County appeared to rise 83% from 16.9 in 2000-2004 to 31.0 in 2005-2009. However, it must be noted that all the rates shown for Gates County except the rate for 2005-2009 were unstable; the “zero” plots represent suppressed rates.
- The regional colon cancer mortality rate fell 14% over the period cited.
- All the rates for Jones County were unstable or suppressed.
- The NC colon cancer mortality rate declined 18% overall in the period cited.

Figure 17. Overall Colon Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Colon Cancer Mortality

Table 133 presents colon cancer mortality data for the 2007-2011 aggregate period, stratified by race and sex.

- Due to below-threshold numbers of colon cancer deaths among most stratified populations at the county level, mortality rates for those groups were suppressed.
- Statewide, the colon cancer mortality rate for African American non-Hispanics was 52% *higher* than the comparable rate for white non-Hispanics, and the rates for other non-Hispanics and Hispanics were far below the comparable rate for white non-Hispanics.
- At the state level the colon cancer mortality rate for males was higher than the comparable rate for females.

Table 133. Race/Ethnicity-Specific and Sex-Specific Colon Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	12	N/A	4	N/A	0	N/A	0	N/A	5	N/A	11	N/A	16	N/A
Regional Average	13	13.8	8	N/A	0	N/A	0	N/A	10	N/A	12	15.8	21	19.4
Jones County	7	N/A	4	N/A	0	N/A	0	N/A	8	N/A	3	N/A	11	N/A
State of NC	5,604	14.5	1,851	22.1	96	9.6	63	6.3	3,964	19.0	3,650	12.9	7,614	15.5

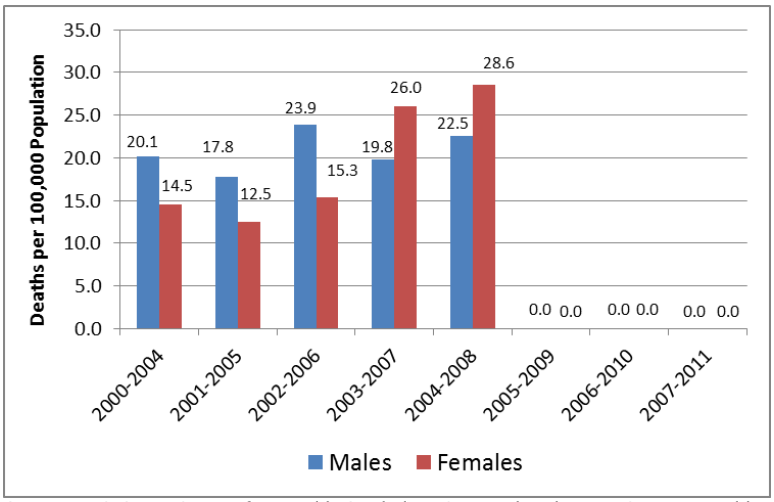
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 18 depicts gender-stratified colon cancer mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- There may be a gender difference in colon cancer mortality rates in Gates County that is changing. Although all the rates were either unstable or suppressed, the degree of

difference between the rates for men and women appeared to be reversing, as the rate for females increased steadily and the rate for males fluctuated. Note that "zero" signifies only that a rate was suppressed.

Figure 18. Sex-Specific Colon Cancer Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



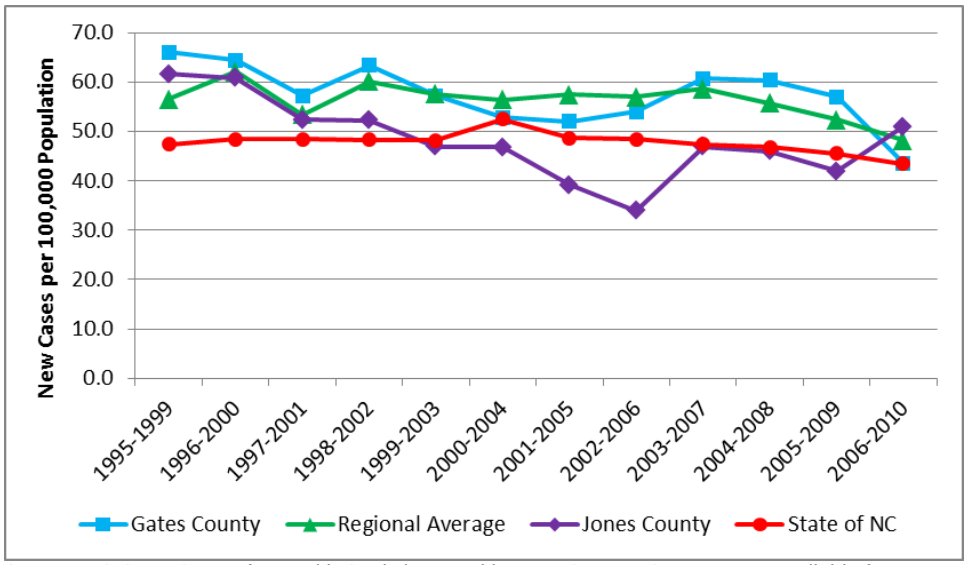
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Colon Cancer Incidence

Figure 19 plots the incidence rate trend for colon cancer.

- The colon cancer incidence rate in Gates County fluctuated over the period cited but fell 34% overall, from 66.0 in 1995-1999 to 43.5 in 2006-2010.
- The regional colon cancer incidence rate, relatively steady for several aggregate periods, fell recently to a 10-year low of 48.2
- The Jones County colon cancer incidence rate was variable over the period cited, but was 17% lower in 2006-2010 than in 1995-1999.
- At the state level, the colon cancer incidence rate fell from 47.4 in 1995-1999 to 43.4 in 2006-2010, an overall decrease of 8%.

Figure 19. Colon Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Pancreas Cancer

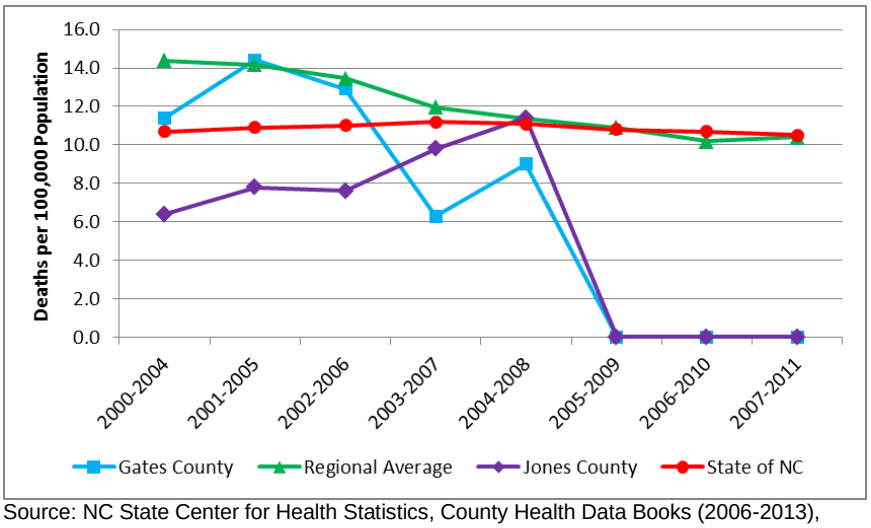
Although the pancreas cancer mortality rate is the fifth highest among the site-specific cancers in NC, some of the typical data sets referenced in this report do *not* cover this cancer; among them are the Inpatient Hospital Utilization and Charges dataset and the Cancer Incidence dataset. Pancreas cancer mortality data *is* available.

Pancreas Cancer Mortality Rate Trend

Figure 20 displays pancreas cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- All the pancreas cancer mortality rates at the county level were either unstable or suppressed. Note that the "zero" plots for the last three aggregate periods represent suppressed rates.
- Region-wide the pancreas cancer mortality rate appeared to decline 29% over the period cited, but the rates should be considered to be unstable, since the regional average was calculated from largely unstable county rates.
- The NC pancreas cancer mortality rate changed little throughout the period cited.

Figure 20. Overall Pancreas Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Pancreas Cancer Mortality

Table 134 presents pancreas cancer mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of pancreas cancer deaths among all racially stratified populations in Gates County and its local-level comparators, all mortality rates for those groups were suppressed so there is no data below the state level to compare.
- Statewide, the pancreas cancer mortality rate for African American non-Hispanics was 39% *higher* than the comparable rate for white non-Hispanics, and the rates for other non-Hispanics and Hispanics were below the comparable rate for white non-Hispanics.
- At the state level the pancreas cancer mortality rate for males (11.8) was 26% higher than the comparable rate for females (9.4).

Table 134. Race/Ethnicity-Specific and Sex-Specific Pancreas Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

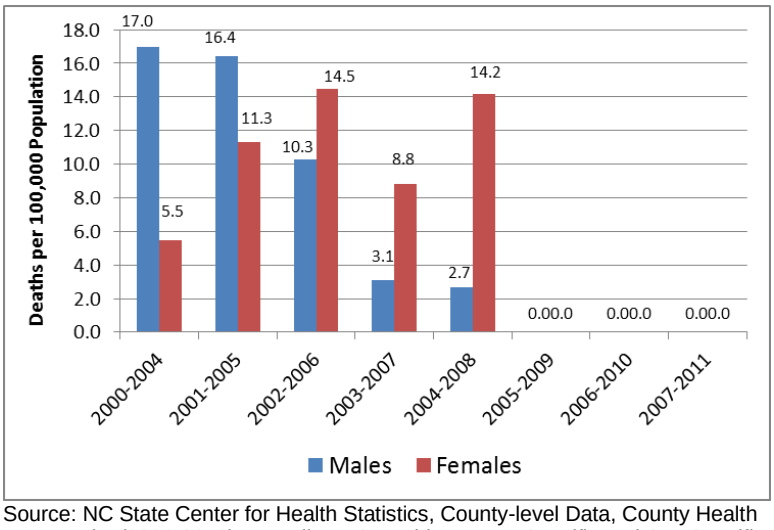
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	4	N/A	4	N/A	0	N/A	0	N/A	4	N/A	4	N/A	8	N/A
Regional Average	7	N/A	6	N/A	0	N/A	0	N/A	5	N/A	8	N/A	13	10
Jones County	3	N/A	6	N/A	0	N/A	0	N/A	7	N/A	2	N/A	9	N/A
State of NC	3,925	10.0	1,152	13.9	66	6.8	41	4.0	2,519	11.8	2,665	9.4	5,184	10.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 21 depicts gender-stratified pancreas cancer mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- All the rates that appear in the graph were either unstable or suppressed, and the extreme variability noted is likely related to rate instability.

Figure 21. Sex-Specific Pancreas Cancer Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Pancreas Cancer Incidence

Historical pancreas cancer incidence rates are not available from NC SCHS at the present time.

Diseases of the Heart

Heart disease is an abnormal organic condition of the heart or of the heart and circulation. Heart disease is the number one killer in the US and a major cause of disability. The most common cause of heart disease, coronary artery disease, is a narrowing or blockage of the coronary arteries, the blood vessels that supply blood to the heart itself. Coronary artery disease is the major reason people have heart attacks, but other kinds of heart problems may originate in the valves in the heart, or the heart may not pump well and cause heart failure (55).

Heart disease was the second leading cause of death in Gates County, the Albemarle Region, and the state of NC in the 2007-2011 period; it was the leading cause of death in Jones County (cited previously).

Heart Disease Hospitalizations

Table 135 presents hospital discharge rate trend data for several years. According to this data from NC SCHS, heart disease has been cause for hospitalizations among Gates County residents at a rate significantly lower than the comparable averages for Jones County, the region and the state.

Table 135. Heart Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	7.8	7.2	7.2	6.6	4.4	6.4	5.6
Regional Average	11.4	11.9	11.1	10.6	9.7	9.7	9.9
Jones County	20.8	18.0	21.3	19.7	19.9	21.6	17.2
State of NC	13.1	12.7	12.2	11.8	11.4	11.3	10.9

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS data, in 2011 there were 67 hospital discharges associated with heart disease among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

Table 136 presents data on 2012 hospitalizations associated with diagnoses of chronic rheumatic heart disease (ICD-9 Codes 393-398), hypertensive heart disease (ICD-9 Code 402), ischemic heart disease (ICD-9 Codes 410-414), pulmonary heart disease (ICD-9 Codes 415 and 416), and other forms of heart disease (ICD-9 Codes 420-429). Note that while significant, these categories do *not* include all forms of heart disease. There were 29 inpatient hospitalizations of Gates County residents for these categories of heart disease at Albemarle Hospital in 2012.

Table 136. Inpatient Hospitalizations of Gates County Residents for Diseases of the Heart, Albemarle Hospital (2012)

ICD-9 Code	Diagnosis	No. Discharges
393-398	**Chronic rheumatic heart disease**	0
402	**Hypertensive heart disease**	0
410-414	**Ischemic heart disease**	14
415-416	**Pulmonary heart disease**	1
420-429	**Other forms of heart disease**	14
TOTAL		29

Source: Albemarle Health

Table 137 presents data on the number of emergency department (ED) admissions of Gates County residents to Albemarle Hospital in 2010-2012 for diagnoses associated with diseases of the heart. The list of diagnoses is the same as the list in the table above and does *not* include all types of heart disease. Gates County residents made a total of 24 ED visits to Albemarle Hospital for attention to heart disease between 2010 and 2012.

Table 137. Emergency Department Admissions of Gates County Residents for Diseases of the Heart, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
393-398	**Chronic rheumatic heart disease**	0	0	0
402	**Hypertensive heart disease**	0	0	0
410-414	**Ischemic heart disease**	2	0	6
415-416	**Pulmonary heart disease**	0	0	2
420-429	**Other forms of heart disease**	7	3	4
TOTAL		9	3	12

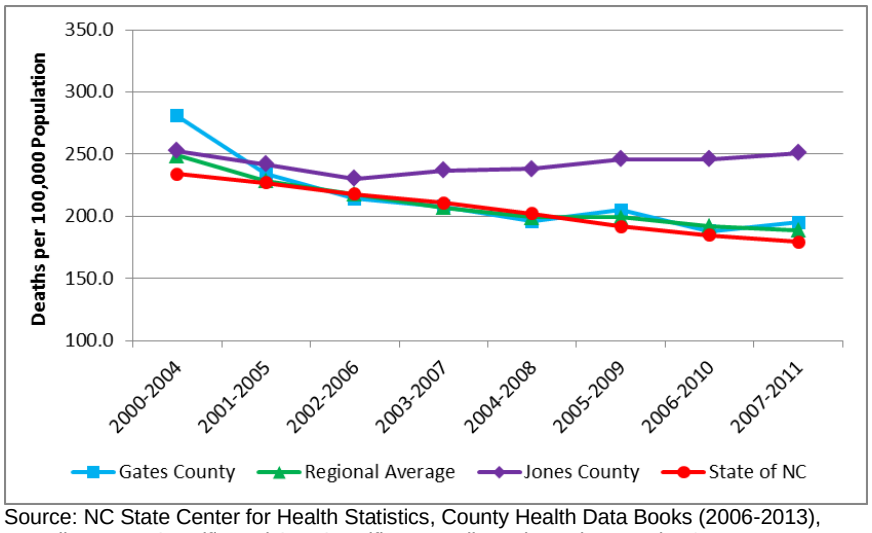
Source: Albemarle Health

Heart Disease Mortality Rate Trend

Figure 22 displays the heart disease mortality rate trend over time in the four jurisdictions being compared in this CHA.

- The heart disease mortality rate fell in all jurisdictions over the period cited.
- The largest decrease over the period cited—31%—occurred in Gates County, where the heart disease mortality rate fell from 280.9 in 2000-2004 to 195.0 in 2007-2011.
- The heart disease mortality rate for the ARHS region fell by 24% (from 249.1 to 188.9) between 2000-2004 and 2007-2011.
- Although the mortality rate in Jones County decreased minimally overall, rates have increased gradually over the past five aggregate periods.
- At the state level, the heart disease mortality rate fell 23% over the period cited.

Figure 22. Overall Heart Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Heart Disease Mortality

Table 138 presents heart disease mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of heart disease deaths among some minority populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the heart disease mortality rate was lowest in NC overall and highest in Jones County. Among African American non-Hispanic persons the heart disease mortality rate was highest in Jones County and lowest in Gates County.
- There appeared to be a large gender difference in heart disease mortality in all jurisdictions; this disparity will be described in greater detail below.

Table 138. Race/Ethnicity-Specific and Sex-Specific Heart Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

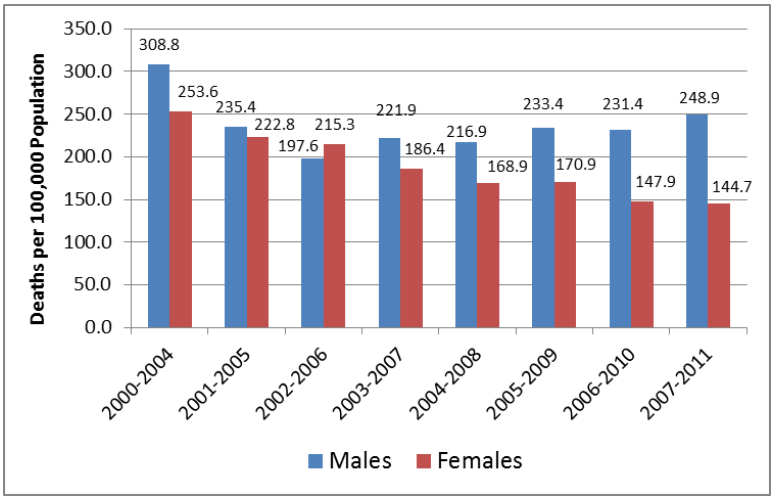
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	81	199.9	47	191.0	1	N/A	0	N/A	75	248.9	54	144.7	129	195.0
Regional Average	148	185.4	71	222.3	1	N/A	0	N/A	122	256.2	97	136.6	220	188.9
Jones County	114	254.0	57	259.4	0	N/A	0	N/A	83	302.7	88	210.3	171	251.2
State of NC	67,605	176.2	16,965	209.3	1,070	118.6	459	46.1	44,630	229.4	41,469	141.6	86,099	179.3

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 23 depicts gender-stratified heart disease mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in heart disease mortality noted in Gates County for 2007-2011 is actually longstanding. The gap between higher mortality among men and lower mortality among women appears to be growing. Noteworthy is the apparent decrease in heart disease mortality among women since the 2000-2004 period. At the same time, the rate among men, which had been decreasing, appears to be on the rise again.

Figure 23. Sex-Specific Heart Disease Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 139 presents heart disease mortality rate data stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of heart disease deaths in some stratified populations the NC SCHS suppressed the related mortality rates.
- In Gates County the heart disease mortality rate among African American, non-Hispanic males was 30% *higher* than the rate among white non-Hispanic males. The stratified rate for African American non-Hispanic females was suppressed, so no comparison is possible.
- At the regional level, heart disease mortality rates among African American non-Hispanics, both male and female, were higher than comparable rates for white non-Hispanics, with the difference 18% among males and 31% among females.
- At the state level, heart disease mortality rates among African Americans, both male and female, were approximately 20% *higher* than among their white, non-Hispanic counterparts. Heart disease mortality statewide was lowest among both male and female Hispanics.

Table 139. Race/Ethnicity and Sex-Specific Heart Disease Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	Rate (Deaths per 100,000 Population)							
	Males				Females			
	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic
Gates County	230.5	299.5	N/A	N/A	162.0	N/A	N/A	N/A
Regional Average	252.0	296.3	N/A	N/A	136.5	178.0	N/A	N/A
Jones County	320.7	288.4	N/A	N/A	198.7	237.8	N/A	N/A
State of NC	226.4	271.6	140.0	54.8	137.5	167.5	100.8	37.4

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Mortality, 2007-2011 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Chronic Lower Respiratory Disease (CLRD)

Chronic lower respiratory disease (CLRD) is composed of three major diseases, chronic bronchitis, emphysema, and asthma, all of which are characterized by shortness of breath caused by airway obstruction and sometimes lung tissue destruction. The obstruction is irreversible in chronic bronchitis and emphysema, reversible in asthma. Before 1999, CLRD was called *chronic obstructive pulmonary disease* (COPD). Some in the field still use the designation COPD, but limit it to mean chronic bronchitis and emphysema only. In the US, tobacco use is a key factor in the development and progression of CLRD/COPD, but exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections also play a role (56).

CLRD was the third leading cause of death in Gates County, the ARHS region and NC, and the fourth leading cause of death in Jones County, in the 2007-2011 period (cited previously).

CLRD/COPD Hospitalizations

Table 140 presents the hospital discharge rate trend data for COPD (the term still used by some data-compiling organizations). According to this data, COPD caused a significant proportion of illness-related hospitalizations among Gates County residents over time, but at rates consistently lower than in the other jurisdictions.

Table 140. COPD Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	2.9	2.7	2.8	3.3	1.8	2.3	2.2
Regional Average	4.3	3.8	4.0	4.3	3.3	3.3	3.7
Jones County	5.8	5.8	5.3	5.4	6.0	6.1	4.8
State of NC	3.5	3.2	3.1	3.4	3.4	3.2	3.2

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 26 hospital admissions for COPD among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

In the ICD-9 system, Chronic Obstructive Pulmonary Disease and Allied Conditions appear in the code range of 490-496. This category includes chronic bronchitis, emphysema, asthma, and other forms of chronic airway obstruction. Table 141 presents data on 2012 inpatient hospitalizations of Gates County residents at Albemarle Hospital for diagnoses of COPD. There were five inpatient hospitalizations of Gates County residents at Albemarle Hospital in 2012 for treatment of COPD.

Table 141. Inpatient Hospitalizations of Gates County Residents for COPD, Albemarle Hospital (2012)

ICD-9 Code	Diagnosis	No. Discharges
490-496	**Chronic obstructive pulmonary disease**	5

Source: Albemarle Health

Table 142 presents data on the number of emergency department admissions of Gates County residents at Albemarle Hospital in 2010-2012 for diagnoses associated with COPD. For the period from 2010-2012 there was a total of 51 visits to the Albemarle Hospital ED by Gates County residents associated with diagnoses of COPD.

Table 142. Emergency Department Admissions of Gates County Residents for COPD, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
490-496	**Chronic obstructive pulmonary disease**	18	14	19

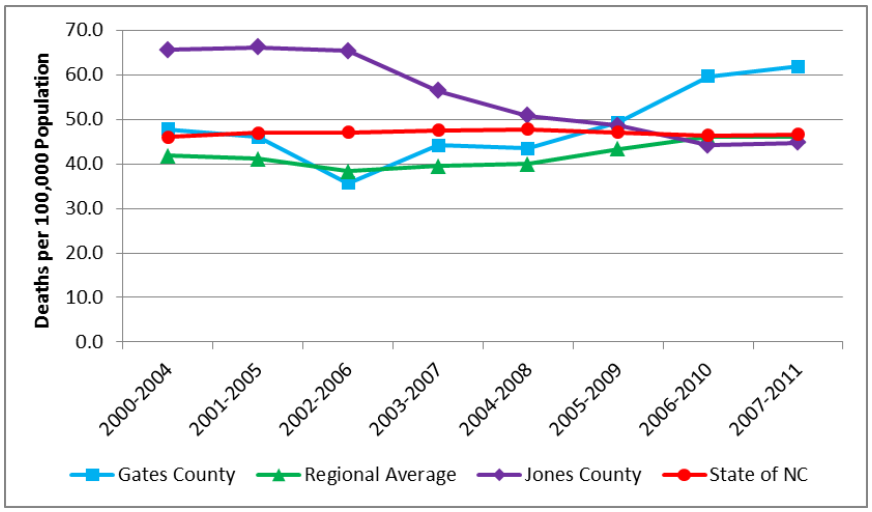
Source: Albemarle Health

CLRD Mortality Rate Trend

Figure 24 displays the CLRD mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The CLRD mortality rate in Gates County rose 29% overall, increasing from 47.8 in 2000-2004 to 61.8 in 2007-2011. The rate in Gates County was the highest among the comparators in the last two aggregate periods.
- The regional CLRD mortality rate also rose, by 10% between 2000-2004 and 2007-2011.
- The CLRD mortality rate in Jones County fell 32% over the same interval.
- At the state level, the CLRD mortality rate was essentially unchanged over the period.

Figure 24. Overall CLRD Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in CLRD Mortality

Table 143 presents CLRD mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of CLRD disease deaths among some stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the CLRD mortality rate was lowest statewide and highest in Gates County.
- In both the region and the state, the CLRD mortality rate for African American non-Hispanic persons was lower than the comparable rate for white non-Hispanic persons.
- There appeared to be a gender difference in CLRD mortality in each jurisdiction with the rate for males higher than the rate for females.

Table 143. Race/Ethnicity-Specific and Sex-Specific CLRD Mortality
(Single Five-Year Aggregate Period, 2007-2011)

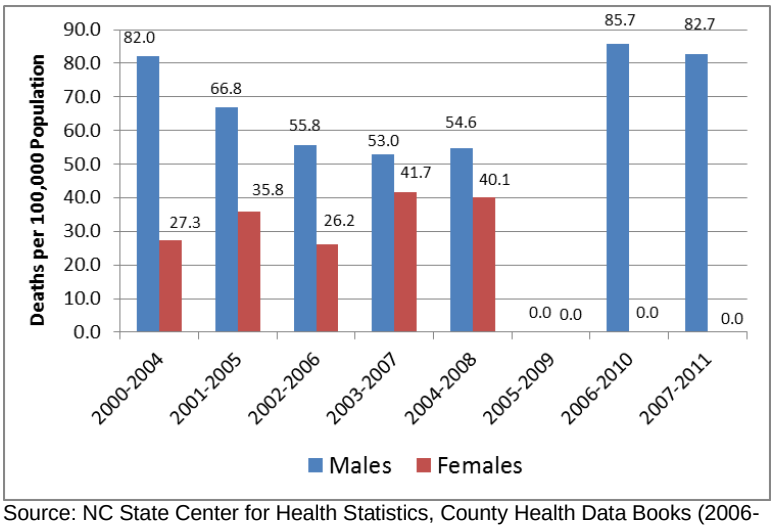
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	30	73.6	10	N/A	0	N/A	0	N/A	22	82.7	18	N/A	40	61.8
Regional Average	41	52.9	9	42.5	0	N/A	0	N/A	29	73.4	22	35.4	51	46.1
Jones County	25	55.4	6	N/A	0	N/A	0	N/A	15	N/A	16	N/A	31	44.7
State of NC	19,755	51.3	2,287	28.9	176	20.3	56	7.8	10,447	54.9	11,827	41.7	22,274	46.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 25 depicts gender-stratified CLRD mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- While it appears that males in Gates County have the higher CLRD mortality rates, it should be noted that only the first and last two rates for the male population—the highest values of the series—were stable, and all the rates for females were unstable or suppressed.

Figure 25. Sex-Specific CLRD Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 144 presents CLRD mortality rate data fully stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of CLRD deaths in some stratified categories, the NC SCHS suppressed the associated mortality rates.
- At the state level, the CLRD mortality rate was highest among white non-Hispanic males, followed by white non-Hispanic females, African American non-Hispanic males, non-Hispanic males of other races, and African American non-Hispanic females. CLRD mortality rates statewide were lowest among male and female Hispanics.
- At the state level CLRD mortality rates were higher for males than for females in every racial group *except* Hispanics, where the rate for females was higher than the comparable rate for males.

Table 144. Race/Ethnicity and Sex-Specific CLRD Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	Rate (Deaths per 100,000 Population)							
	Males				Females			
	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic
Gates County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Regional Average	78.4	83.2	N/A	N/A	42.4	N/A	N/A	N/A
Jones County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State of NC	58.2	43.9	27.2	7.0	47.3	21.1	15.6	8.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Mortality, 2007-2011 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Diabetes Mellitus

Diabetes is a disease in which the body's blood glucose levels are too high due to problems with insulin production and/or utilization. Insulin is a hormone that helps glucose get to cells where it is used to produce energy. With Type 1 diabetes, the body does not make insulin. With Type 2 diabetes, the more common type, the body does not make or use insulin well. Without enough insulin, glucose stays in the blood. Over time, having too much glucose in the blood can damage the eyes, kidneys, and nerves. Diabetes can also lead to heart disease, stroke and even the need to remove a limb (57).

Diabetes was the fourth leading cause of death in Gates County, the fifth leading cause of death region-wide, and the seventh statewide in 2007-2011 (cited previously). Diabetes was unranked as a cause of death in Jones County in that period due to below-threshold numbers of diabetes deaths.

Diabetes Mellitus Hospitalizations

Table 145 presents hospital discharge rate trend data for diabetes. The rates for Gates County were consistently the lowest over the period cited, although the rates for 2007-2009 were technically unstable.

Table 145. Diabetes Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	1.7	0.9	**0.8**	**0.7**	**0.3**	1.1	0.8
Regional Average	1.9	1.7	1.5	1.7	1.2	1.6	1.5
Jones County	2.6	3.4	1.8	1.5	1.6	2.7	1.5
State of NC	1.8	1.8	1.9	1.8	1.8	1.9	2.0

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 10 hospitalizations for diabetes among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

In ICD-9 coding, diabetes falls in the category Endocrine and Metabolic Diseases (240-279), with a specific ICD-9 Code of 250 for diabetes mellitus. According to data provided by Albemarle Health, there were five inpatient hospitalizations of Gates County residents at Albemarle Hospital in 2012 for treatment of diabetes.

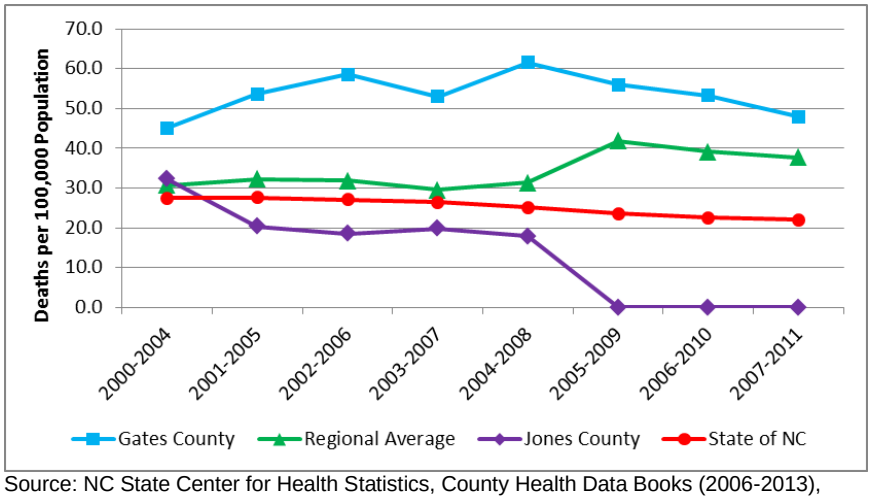
According to data provided by Albemarle Health, for the period from 2010-2012 there were 17 visits by Gates County residents to the ED of Albemarle Hospital with diagnoses associated with diabetes.

Diabetes Mellitus Mortality Rate Trend

Figure 26 displays the diabetes mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The diabetes mortality rate for Gates County was the highest among the comparators throughout the period cited, and was slightly higher in 2007-2011 than in 2000-2004 (48.0 vs. 45.1)
- The diabetes mortality rate for the ARHS region exceeded the state rate in every aggregate period except the first, and it rose 23% overall from 2000-2004 to 2007-2011.
- The diabetes mortality rate for NC as a whole decreased 20% over the period cited.

Figure 26. Overall Diabetes Mellitus Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Diabetes Mellitus Mortality

Table 146 presents diabetes mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of diabetes deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- The diabetes mortality rate was higher among African American non-Hispanic persons than among white non-Hispanic persons in both the region and the state.
- Region-wide and statewide, the diabetes mortality rate was higher among males than among females.

Table 146. Race/Ethnicity-Specific and Sex-Specific Diabetes Mellitus Mortality (Single Five-Year Aggregate Period, 2007-2011)

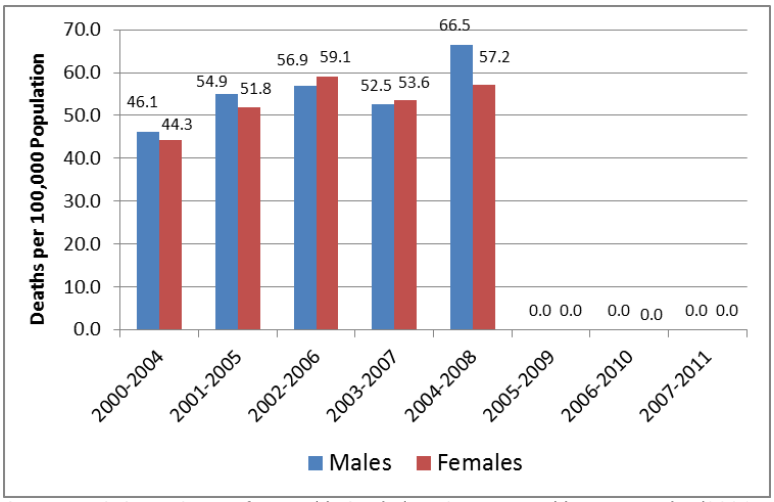
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	13	N/A	19	N/A	0	N/A	0	N/A	18	N/A	14	N/A	32	48.0
Regional Average	15	26.9	16	52.5	0	N/A	0	N/A	14	61.1	18	36.0	31	37.8
Jones County	6	N/A	12	N/A	0	N/A	0	N/A	8	N/A	10	N/A	18	N/A
State of NC	6,745	17.5	3,681	44.8	217	23.6	90	8.8	5,399	26.0	5,334	18.8	10,733	22.0

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 27 depicts gender-stratified diabetes mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- The diabetes mortality rates for Gates County females and males were similar throughout most of the period cited, with a larger difference emerging only with the 2004-2008 data. It must be noted, however, that all the rates for males were either unstable or suppressed, and only the 2002-2006, 2003-2007 and 2004-2008 rates for females were stable.

Figure 27. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of diabetes deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the diabetes mortality rate in all racial groups was higher among males than females.

Statewide, the diabetes mortality rate was highest among African American non-Hispanic males (50.9), followed by African American non-Hispanic females (40.4), non-Hispanic males of other races (25.7), non-Hispanic females of other races (22.2) and white non-Hispanic males (21.7). Diabetes mortality rates statewide were lowest among female Hispanics (7.0), Hispanic males (11.4), and white non-Hispanic females (14.2).

Cerebrovascular Disease

Cerebrovascular disease describes the physiological conditions that lead to stroke. Strokes happen when blood flow to the brain stops and brain cells begin to die. There are two types of stroke. Ischemic stroke (the more common type) is caused by a blood clot that blocks or plugs a blood vessel in the brain. The other kind, called hemorrhagic stroke, is caused by a blood vessel that breaks and bleeds into the brain (58).

In the 2007-2011 aggregate period cerebrovascular disease was the fifth leading cause of death in Gates County, the third leading cause of death in Jones County, and the fourth leading cause of death in the Albemarle region and the state of NC (cited previously).

Cerebrovascular Disease Hospitalizations

Table 147 presents the hospital discharge rate trend data for cerebrovascular disease (CVD). According to this data, the CVD hospital discharge rate was lowest in Gates County and highest in Jones County.

Table 147. Cerebrovascular Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	1.8	2.2	1.3	1.8	1.6	1.2	0.9
Regional Average	3.1	3.0	2.8	2.5	2.4	2.8	2.2
Jones County	4.6	4.6	5.6	5.7	6.7	6.9	6.3
State of NC	3.2	3.1	3.1	3.0	3.1	3.1	3.0

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 11 hospitalizations for CVD among Gates County residents; this figure includes hospitalizations anywhere in NC (55).

In the ICD-9 system, cerebrovascular disease is in the category Diseases of the Circulatory System, within the specific code range of 430-438. According to data provided by Albemarle Health, there were seven hospitalizations of Gates County residents at Albemarle Hospital in 2012 for treatment of cerebrovascular disease.

For the period from 2010-2012 there was a total of three ED visits to Albemarle Hospital by Gates County residents associated with diagnoses of cerebrovascular disease.

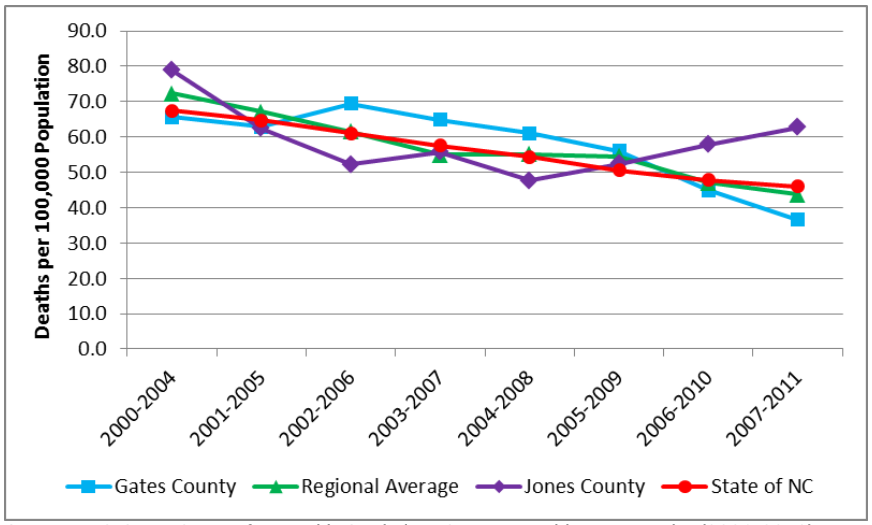
Cerebrovascular Disease Mortality Rate Trend

Figure 28 displays the CVD mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The CVD mortality rate in Gates County was the highest among the four jurisdictions for the third through the sixth aggregate periods; the CVD mortality rate in Jones County was the highest in the remaining aggregate periods.

- The Gates County CVD mortality rate decreased 44% between 2000-2004 and 2007-2011, falling from 65.6 to 36.6.
- CVD mortality rates in every jurisdiction fell over the period cited. Overall decreases were 20% in Jones County, 40% region-wide, and 32% statewide.

Figure 28. Overall Cerebrovascular Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Cerebrovascular Disease Mortality

Table 148 presents CVD mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of CVD disease deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the region had the lowest CVD mortality rate and Jones County had the highest.
- In the three jurisdictions with rates for both African American non-Hispanic persons and white non-Hispanic persons, the rates for the former were higher.
- In all four jurisdictions, the CVD mortality rate for males was higher than the comparable rate for females.

Table 148. Race/Ethnicity-Specific and Sex-Specific Cerebrovascular Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

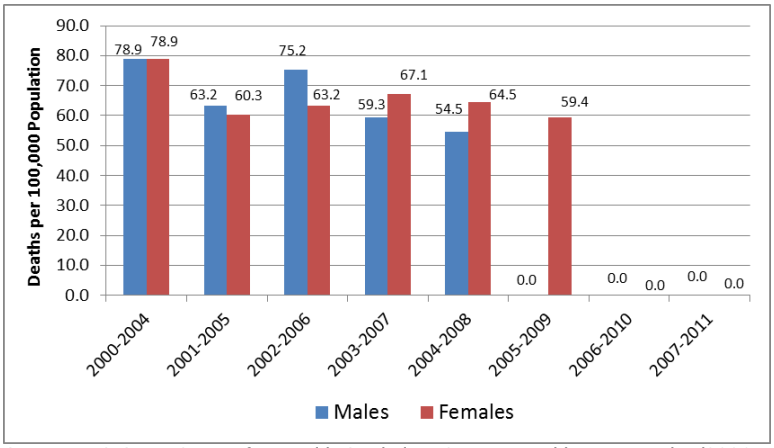
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	11	N/A	12	N/A	0	N/A	0	N/A	7	N/A	16	N/A	23	36.6
Regional Average	29	37.3	21	67.6	0	N/A	0	N/A	21	64.2	29	40.5	51	43.7
Jones County	21	48.2	20	97.6	0	N/A	0	N/A	18	N/A	23	59.4	41	62.7
State of NC	16,418	43.0	4,933	62.4	280	32.6	143	15.1	8,730	46.8	13,044	44.5	21,774	46.0

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 29 depicts gender-stratified CVD mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- While the CVD mortality rate among Gates County males was higher than the CVD mortality rate among Gates County females in the second and third aggregate periods cited, since then the rate for females has been the higher. Note, however, that most of the rates for males were unstable or suppressed. Only the first rate for females was unstable.

Figure 29. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Table 149 presents CVD mortality rate data fully stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of CVD deaths in some stratified categories, the NC SCHS suppressed the associated mortality rates, leaving little data to compare.
- Region-wide, the CVD mortality rate for African American non-Hispanic males exceeded the rate for white non-Hispanic males, and the rate for African American non-Hispanic females exceeded the rate for white non-Hispanic females.
- At the state level, the CVD mortality rate was highest among African American non-Hispanic males, followed by African American non-Hispanic females, white non-Hispanic

males, and white non-Hispanic females. CVD mortality rates statewide were lowest among male and female Hispanics.

- At the state level CVD mortality rates were higher for males than for females in every racial group *except* Hispanics, where the rate for females was higher than the comparable rate for males.

Table 149. Race/Ethnicity and Sex-Specific Cerebrovascular Disease Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	Rate (Deaths per 100,000 Population)							
	Males				Females			
	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic	White, Non-Hispanic	Af Amer, Non-Hispanic	Other Races, Non-Hispanic	Hispanic
Gates County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Regional Average	57.8	94.9	N/A	N/A	38.2	60.5	N/A	N/A
Jones County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State of NC	43.3	67.9	37.4	14.0	42.0	57.7	28.5	15.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2013), Mortality, 2007-2011 NC Resident Race/Ethnicity and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Unintentional Motor Vehicle Injury

The NC State Center for Health Statistics distinguishes unintentional motor vehicle injuries from all other injuries when calculating mortality rates and ranking leading causes of death.

Mortality attributable to unintentional motor vehicle injury was the sixth leading cause of death in Gates County in the 2007-2011 aggregate period. At the same time it ranked seventh in the ARHS region and tenth statewide; it was unranked in Jones County due to below-threshold numbers of deaths.

Unintentional Motor Vehicle Injury Hospitalizations

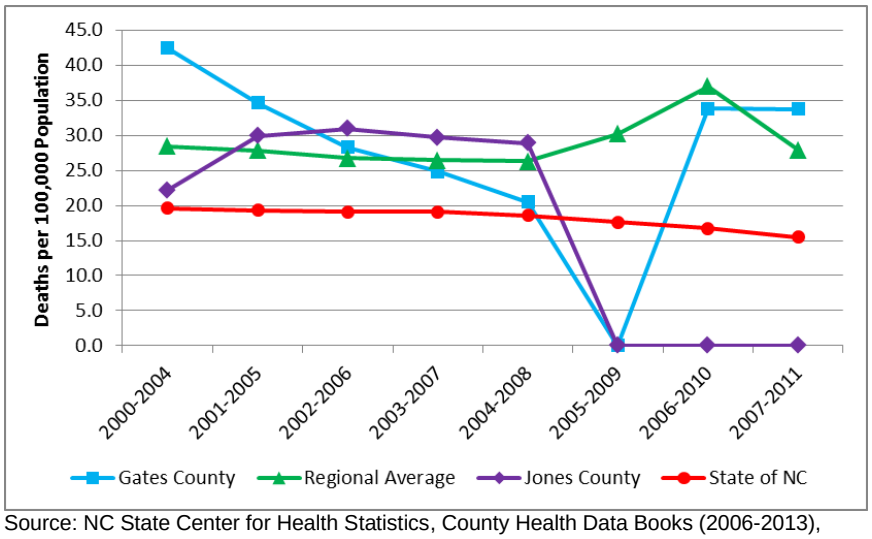
Neither the NC SCHS nor the regional hospitals participating in this assessment use a diagnosis specific for hospitalizations caused by motor vehicle injury. In the NC SCHS's Inpatient Hospital Utilization database (54), motor vehicle injury hospitalizations would fall in the category called *Injuries and Poisonings*, which also includes hospitalizations resulting from all other injuries and poisonings. The region's hospitals track inpatient hospitalizations and emergency department admissions in the broad ICD-9 category *Injury and Poisoning* (ICD-9 Codes 800-999). A subsequent chapter discussing All Other Unintentional Injuries will present data in that code category applicable to Gates County residents.

Unintentional Motor Vehicle Injury Mortality Rate Trend

Figure 30 displays the unintentional motor vehicle injury mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The pattern of unintentional motor vehicle injury mortality rate change among three of the four comparators in this example was quite dynamic. Early in the period cited the rate was highest in Gates County, but was overtaken after two aggregate periods by the rate in Jones County. Mid-way through the interval the Jones County rate was suppressed due to below-threshold numbers of motor vehicle injury deaths, and the regional rate became the highest. Finally, in the 2007-2011 aggregate period, the unintentional motor vehicle injury rate for Gates County was again the highest. The state rate was consistently the lowest true rate throughout the period cited. It should be noted that the first and last two rates for Gates County were technically stable; the others were unstable or suppressed.
- At the state level, the unintentional motor vehicle injury mortality rate fell 21% over the period cited.

Figure 30. Unintentional Motor Vehicle Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Unintentional Motor Vehicle Injury Mortality

Table 150 presents unintentional motor vehicle injury mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of unintentional motor vehicle injury deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups, leaving little data to compare.
- Among white non-Hispanic persons, the unintentional motor vehicle injury mortality rate was higher across the ARHS region than statewide.
- The rates for African American non-Hispanics and white non-Hispanics statewide were nearly the same, but across the ARHS region the rate for African American non-Hispanics was 56% higher than the comparable regional rate for white non-Hispanics. Note, however, that the regional rate likely was unstable since it was based on county rates some of which were unstable.
- Statewide, the unintentional motor vehicle injury rate for males was 2.7 *times* the comparable rate for females.

Table 150. Race/Ethnicity-Specific and Sex-Specific Unintentional Motor Vehicle Injury Mortality (Single Five-Year Aggregate Period, 2007-2011)

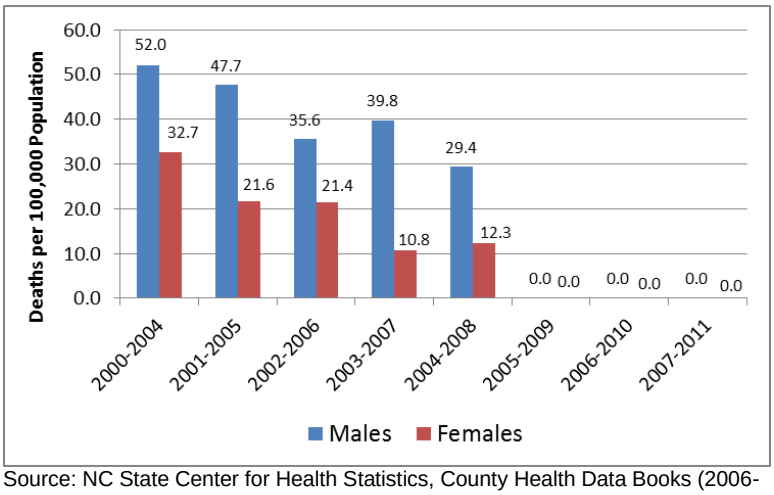
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	13	N/A	7	N/A	0	N/A	0	N/A	13	N/A	7	N/A	20	33.7
Regional Average	12	26.5	8	41.3	0	N/A	0	N/A	16	54.2	4	N/A	20	27.9
Jones County	5	N/A	5	N/A	0	N/A	1	N/A	7	N/A	4	N/A	11	N/A
State of NC	5,011	15.5	1,547	15.3	236	14.9	542	14.3	5,222	22.9	2,114	8.6	7,336	15.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 31 depicts gender-stratified unintentional motor vehicle injury mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- The unintentional motor vehicle injury mortality rate among males in the county was, on occasion, as much as 3½ times the comparable rate for females. Note, however, that all of the rates were either unstable or suppressed (as indicated by "0"), due to below-threshold numbers of deaths.

Figure 31. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Gates County
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers motor vehicle injury deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the unintentional motor vehicle injury mortality rate in all racial groups was higher among males than females. Statewide, the unintentional motor vehicle injury mortality rate was highest among African American non-Hispanic males (24.9), followed by white non-Hispanic males (22.3), non-Hispanic males of other races (21.9), and Hispanic males (20.1). Unintentional motor vehicle injury mortality rates statewide were lowest among Hispanic females (6.5), followed by African American non-Hispanic females (7.3), non-Hispanic females of other races (8.5) and white non-Hispanic females (9.2).

Age Disparities in Motor Vehicle Injury Mortality

The unintentional motor vehicle injury mortality rate has a strong age component.

Table 151 presents unintentional motor vehicle injury mortality data, stratified by age group. Note that this data is *not* age-adjusted.

- Statewide, the 20-39 age group has the highest motor vehicle injury mortality rate (21.1), followed by the 40-64 age group (16.0).

- Although most of the age-stratified mortality rates in all the counties were unstable, they appeared to follow the same pattern as NC as a whole.

Table 151. Motor Vehicle Injury Mortality, Numbers and Rates, by Age (Five-Year Aggregate Period, 2007-2011)

Location	Number of Deaths and Unadjusted Death Rates per 100,000 Population							
	All Ages		0-19		20-39		40-64	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	20	33.6	**4**	**24.9**	**5**	**38.9**	**8**	**36.4**
Regional Average	**23**	**24.5**	**3**	**15.3**	**7**	**32.7**	**8**	**23.7**
Jones County	**11**	**21.9**	**4**	**33.5**	**1**	**9.3**	**6**	**31.9**
State of NC	7,336	15.6	1,005	7.9	2,694	21.1	2,474	16.0

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, 2013 County Health Databook, Death Counts and Crude Death Rates per 100,000 Population for Leading Causes of Death, by Age Groups, NC 2007-2011; http://www.schs.state.nc.us/SCHS/data/databook/.

Alcohol-Related Traffic Crashes

Table 152 presents several years of data on the proportion of traffic crashes that were alcohol-related.

- The percent of alcohol-related crashes varied over time without a clear pattern in all the jurisdictions.
- In Gates County the six-year average of alcohol-related traffic crashes was 5.4%. Region-wide the comparable average was 5.7%, in Jones County it was 5.9%, and in NC it was 5.3%

Table 152. Alcohol-Related Traffic Crashes Trend
(Single Years, 2006-2011)

Location	2006			2007			2008			2009			2010			2011		
	Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes			Total Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Gates County	261	12	4.6	248	19	7.7	256	8	3.1	260	19	7.3	248	11	4.4	240	12	5.0
Regional Average	363	22	5.9	360	23	6.5	345	18	5.2	367	21	5.8	348	20	5.7	347	18	5.1
Jones County	324	19	5.9	328	13	4.0	312	14	4.5	290	20	6.9	291	21	7.2	292	20	6.9
State of NC	220,307	11,336	5.1	224,307	11,778	5.3	214,358	11,982	5.6	209,695	11,384	5.4	213,573	10,696	5.0	208,509	10,708	5.1
Source	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the years 2000 through 2011 (single years).
Note: Percentages appearing in **bold** type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.
1 - UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts (2006-2011); http://www.hsrc.unc.edu/ncaf/crashes.cfm.
2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

Table 153 presents detail on the outcomes of alcohol-related crashes in 2011.

- In 2011 in Gates County 5.0% of all crashes, 3.2% of all property damage only crashes, 8.6% of non-fatal crashes, and no fatal crashes were alcohol-related. Note however, that all figures for percent of alcohol-related fatal crashes were based on small numbers of deaths, and may be unstable.
- Statewide in 2011 5.1% of all crashes, 3.5% of all property damage only crashes, 8.1% of all non-fatal crashes, and 32.6% of fatal crashes were alcohol-related.

Table 153. Outcomes of Alcohol-Related Traffic Crashes (2011)

Location	Total Crashes			Property Damage Only Crashes			Non-Fatal Crashes			Fatal Crashes		
	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes	# Reportable Crashes	# Alcohol-Related Crashes	% Alcohol-Related Crashes
Gates County	240	12	5.0	158	5	3.2	81	7	8.6	1	0	0.0
Regional Average	347	18	5.0	236	8	2.9	108	9	9.0	3	1	28.9
Jones County	292	20	6.9	213	6	2.8	78	13	16.7	1	1	100.0
State of NC	208,509	10,708	5.1	139,404	4,845	3.5	67,983	5,497	8.1	1,122	366	32.6
Source	1	1	2	1	1	2	1	1	2	1	1	2

Note: statistical information for North Carolina Alcohol Facts was obtained from the NC Administrative Office of the Courts (AOC) and the NC Division of Motor Vehicles (DMV) for the years 2000 through 2011 (single years).
Note: Percentages appearing in **bold** type are based on fewer than 10 alcohol-related crashes per year. Such figures are likely unstable and should be interpreted with caution.
1 - UNC Chapel Hill, Highway Safety Research Center. North Carolina Alcohol Facts (2006-2011); http://www.hsrc.unc.edu/ncaf/crashes.cfm.
2 - Calculated (% alcohol related crashes is calculated by dividing # alcohol-related crashes by # reportable crashes)

Pedestrian and Bicycle Crashes

The NC Department of Transportation, Division of Bicycle and Pedestrian Transportation maintains data on the character of crashes involving cars and bicycles and cars and pedestrians.

Table 154 displays data on automobile/pedestrian crashes in Gates County over the period from 2006-2010.

- There were all together six automobile/pedestrian crashes during the period.
- The most common location for automobile/pedestrian crashes (5 of 6, or 83%) was a non-intersection site.
- The most common type of automobile/pedestrian crash involved a pedestrian in the roadway (3 of 6, or 50%).
- The motorists in automobile/pedestrian crashes were most frequently in the 30-39 age group (2 of 6, or 33%).
- The pedestrians in automobile/pedestrian crashes were most frequently in the 41-50 and 51-60 age groups (each 2 of 6, or 33%).
- None of the six crashes involved excessive speed and none was deemed hit-and-run.
- The pedestrian was at fault in 33% of crashes (2 of 6). The party at fault was not coded in the remaining crashes.

Table 154. Automobile/Pedestrian Crashes, Gates County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Non-Intersection	1	1	n/a	2	1	5
Non-Roadway	0	0	n/a	1	0	1
Total	1	1	n/a	3	1	6
Crash Type						
Crossing Roadway – Vehicle Not Turning	0	0	n/a	1	0	1
Pedestrian in Roadway – Circumstances Unknown	0	1	n/a	1	1	3
Unusual Circumstances	0	0	n/a	1	0	1
Walking Along Roadway	1	0	n/a	0	0	1
Total	1	1	n/a	3	1	6
Driver Age Group						
0-19	0	1	n/a	0	0	1
20-24	0	0	n/a	1	0	1
30-39	1	0	n/a	1	0	2
40-49	0	0	n/a	1	0	1
50-59	0	0	n/a	0	1	1
Total	1	1	n/a	3	1	6
Pedestrian Age Group						
26-30	0	0	n/a	0	1	1
31-40	0	0	n/a	1	0	1
41-50	1	1	n/a	0	0	2
51-60	0	0	n/a	2	0	2
Total	1	1	n/a	3	1	6
Excessive Speed Indicated						
No	1	1	n/a	3	1	6
Total	1	1	n/a	3	1	6
Hit and Run						
No	1	1	n/a	3	1	6
Total	1	1	n/a	3	1	6
Fault						
Pedestrian at Fault	1	1	n/a	0	0	2
Fault Not Coded	0	0	n/a	3	1	4
Total	1	1	n/a	3	1	6

Source: NC Department of Transportation, Division of Bicycle and Pedestrian Transportation, Research and Reports, Crash Data Tool, Pedestrian Crash Data; http://www.pedbikeinfo.org/pbcat/_pedquery.cfm.

Table 155 displays data on automobile/bicycle crashes in Gates County in the period from 2006-2010.

- There were all together two automobile/bicycle crashes in Gates County during the period.
- One of the automobile/bicycle crashes occurred in an intersection, the other occurred at a non-intersection site.
- In one crash the bicyclist failed to yield at a sign-controlled intersection; the other was a head-on crash.
- The motorist in one case was between the ages of 25-29; in the other case the motorist was in the 30-39 age group.
- The cyclists in automobile/bicycle crashes were both elderly: one was in the 60-69 age group and the other was 70 or older.
- Neither crash involved excessive speed, and neither was deemed hit-and-run.
- Fault was not coded in either of the crashes.

Table 155. Automobile/Bicycle Crashes, Gates County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Intersection	n/a	n/a	1	n/a	0	1
Non-Intersection	n/a	n/a	0	n/a	1	1
Total	n/a	n/a	1	n/a	1	2
Crash Type						
Bicyclist Failed to Yield – Sign-controlled Intersection	n/a	n/a	1	n/a	0	1
Head-On	n/a	n/a	0	n/a	1	1
Total	n/a	n/a	1	n/a	1	2
Driver Age Group						
25-29	n/a	n/a	1	n/a	0	1
30-39	n/a	n/a	0	n/a	1	1
Total	n/a	n/a	1	n/a	1	2
Bicyclist Age Group						
60-69	n/a	n/a	0	n/a	1	1
70+	n/a	n/a	1	n/a	0	1
Total	n/a	n/a	1	n/a	1	2
Excessive Speed Indicated						
No	n/a	n/a	1	n/a	1	2
Total	n/a	n/a	1	n/a	1	2
Hit and Run						
No	n/a	n/a	1	n/a	1	2
Total	n/a	n/a	1	n/a	1	2
Fault						
Fault Not Coded	n/a	n/a	1	n/a	1	2
Total	n/a	n/a	1	n/a	1	2

Source: NC Department of Transportation, Division of Bicycle and Pedestrian Transportation, Research and Reports, Crash Data Tool, Pedestrian Crash Data; http://www.pedbikeinfo.org/pbcat/_bikequery.cfm.

Alzheimer's Disease

Alzheimer's disease is a progressive neurodegenerative disease affecting mental abilities including memory, cognition and language. Alzheimer's disease is characterized by memory loss and dementia. The risk of developing Alzheimer's disease increases with age (e.g., almost half of those 85 years and older suffer from Alzheimer's disease). Early-onset Alzheimer's has been shown to be genetic in origin, but a relationship between genetics and the late-onset form of the disease has not been demonstrated. No other definitive causes have been identified (59).

Alzheimer's disease was the seventh leading cause of death in Gates County, the eighth in the ARHS region, the fifth in Jones County and the sixth statewide in the 2007-2011 aggregate period (cited previously).

Alzheimer's Disease Hospitalizations

At the present time the NC SCHS does not track Alzheimer's disease-related hospitalizations.

Alzheimer's disease is coded 331.0 in the ICD-9 system; however, it can be difficult to diagnose and may first be identified as another form of dementia that would be coded differently (see list in the table below). There were no hospitalizations of Gates County residents in Albemarle Hospital in 2012 for diagnoses associated with Alzheimer's disease and other forms of dementia.

Table 156 presents data on the number of emergency department admissions of Gates County residents at Albemarle Hospital in 2010-2012 for diagnoses associated with Alzheimer's disease and other forms of dementia. For the period from 2010-2012 there were two such ED admissions.

Table 156. Emergency Department Admissions of Gates County Residents for Alzheimer's Disease and Other Forms of Dementia, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
331.0	**Alzheimer's disease**	0	0	0	0
331.1	**Frontotemporal dementia**	0	0	0	0
331.2	**Senile degeneration of the brain**	0	0	0	0
290	**Dementia**	0	0	0	0
294.1	**Dementia in condition classified elsewhere**	0	0	0	0
294.2	**Dementia, unspecified**	0	0	2	2

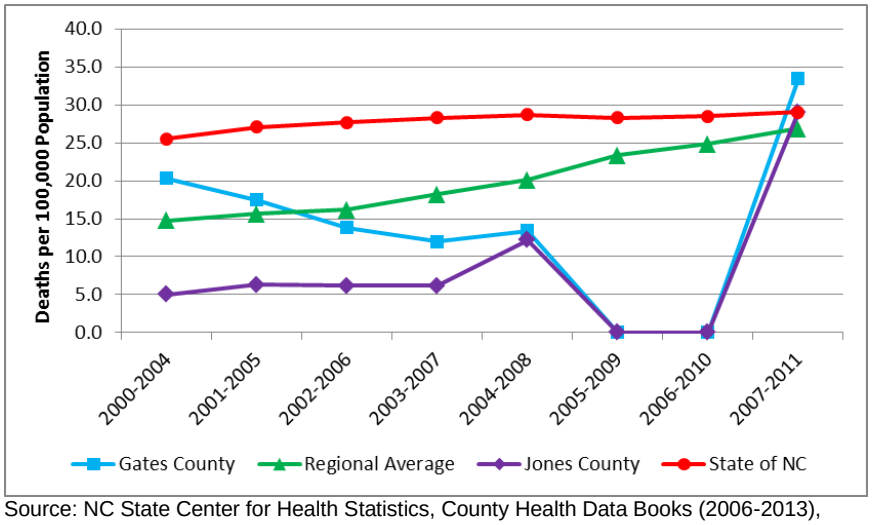
Source: Albemarle Health

Alzheimer's Disease Mortality Rate Trend

Figure 32 displays the Alzheimer's disease mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The Alzheimer's disease mortality rate in Gates County was lower than the comparable rate for the ARHS region and NC throughout much of the interval cited.
- Prior to the 2007-2011 aggregate period all the rates for Gates County and Jones County were unstable or suppressed, but the final data point for both counties was stable. That each was also the county's high for the interval is an indication of the growing significance of this cause of death.
- Region-wide the Alzheimer's disease mortality rate rose 83%, from 14.7 in 2000-2004 to 26.9 in 2007-2011. Statewide the increase was more modest: 14%.

Figure 32. Overall Alzheimer's Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Alzheimer's Disease Mortality

Table 157 presents Alzheimer's disease mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of Alzheimer's disease deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the Alzheimer's disease mortality rate was lowest in the ARHS region and highest in the state as a whole.
- Statewide, the Alzheimer's disease mortality rate is highest among white non-Hispanic persons, followed by African American non-Hispanics, non-Hispanics of other races, and Hispanics.
- Statewide there appeared to be a significant gender difference in Alzheimer's disease mortality with the rate for females significantly higher than the rate for males. There were too many suppressed rates at the county level to make gender comparisons.

Table 157. Race/Ethnicity-Specific and Sex-Specific Alzheimer's Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

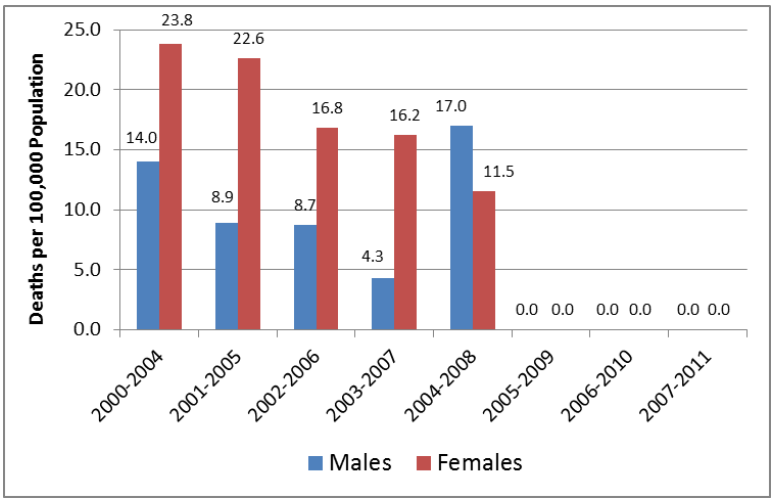
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	10	N/A	11	N/A	0	N/A	0	N/A	10	N/A	11	N/A	21	33.4
Regional Average	20	26.3	10	30.3	0	N/A	0	N/A	9	N/A	21	28.5	30	26.9
Jones County	10	N/A	9	N/A	0	N/A	1	N/A	5	N/A	15	N/A	20	29.0
State of NC	11,369	29.9	1,789	26.1	136	21.3	53	8.9	3,627	22.7	9,720	32.2	13,347	29.0

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 33 depicts gender-stratified Alzheimer's disease mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- The data in this graph is difficult to interpret, since the highly variable gender-stratified Alzheimer's disease mortality rates were all unstable or suppressed. Statewide and in most counties, this cause of death generates a higher mortality rate among women than among men. While that was the pattern in Gates County early in the period cited, it was not the case at the end.

Figure 33. Sex-Specific Alzheimer's Disease Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of Alzheimer's disease deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the Alzheimer's disease mortality rate in all racial groups was higher among females than males, and higher among whites than minorities. Statewide, the Alzheimer's diseases mortality rate was highest among white non-Hispanic females (33.4), followed by African American non-Hispanic females (28.1), non-Hispanic females of other races (24.9),

white non-Hispanic males (23.4), and African American non-Hispanic males (21.2). Alzheimer's disease mortality rates statewide were lowest among female Hispanics (5.9) and non-Hispanic males of other races (15.2). The Alzheimer's disease mortality rate for Hispanic males statewide was suppressed due to a below-threshold number of deaths.

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 in which case low blood pressure and low blood flow cause organ failure (60). While septicemia can be community-acquired, some cases are acquired by patients hospitalized initially for other conditions; these are referred to as nosocomial infections. Sepsis is now a preferred term for septicemia, but NC SCHS continues to use the older term.

Septicemia was an unranked cause of death in Gates County and Jones County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the twelfth leading cause of death in the ARHS region, and eleventh statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after Alzheimer's disease.

Septicemia Hospitalizations

Table 158 presents the hospital discharge rate trend data for septicemia. Throughout most of the period cited, the septicemia mortality rate in Gates County was lowest or second-lowest.

Table 158. Septicemia Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	1.2	2.0	0.9	1.3	1.0	2.5	3.7
Regional Average	**1.4**	**1.7**	**1.5**	**1.5**	**1.4**	**1.9**	**3.0**
Jones County	3.0	3.1	3.1	3.3	4.6	6.2	7.6
State of NC	1.6	1.8	2.0	2.3	2.5	2.9	3.4

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 45 hospital admissions for septicemia among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

The ICD-9 Code for septicemia is 038. There were seven inpatient hospitalizations of Gates County residents at Albemarle Hospital in 2012 associated with a diagnosis of septicemia. For the period from 2010-2012 there were no admissions of Gates County residents to the Albemarle Hospital ED associated with a diagnosis of septicemia.

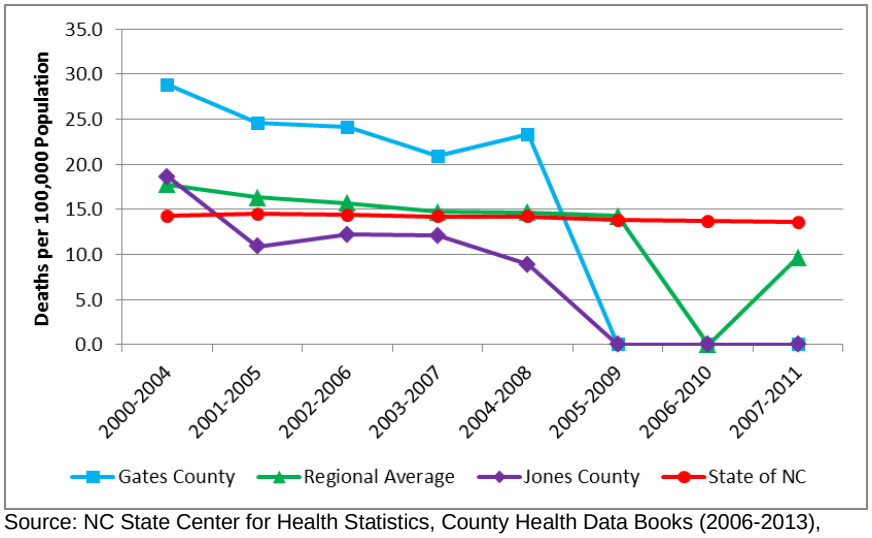
Septicemia Mortality Rate Trend

Figure 34 displays the septicemia mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- Gates County had the highest septicemia mortality rate in every period cited until the last two aggregate periods when the county rate was suppressed.

- The septicemia mortality rate in Gates County was unstable but higher than the comparable rates for the region and the state in the first five aggregate periods, and was suppressed after that.
- The septicemia mortality rate for NC as a whole decreased 5% between 2000-2004 and 2007-2011.

Figure 34. Overall Septicemia Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Septicemia Mortality

Table 159 presents septicemia mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of septicemia disease deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the septicemia mortality rate was higher among males than among females, and higher among African American non-Hispanic persons than among white non-Hispanic persons or other racial and ethnic groups.

Table 159. Race/Ethnicity-Specific and Sex-Specific Septicemia Mortality (Single Five-Year Aggregate Period, 2007-2011)

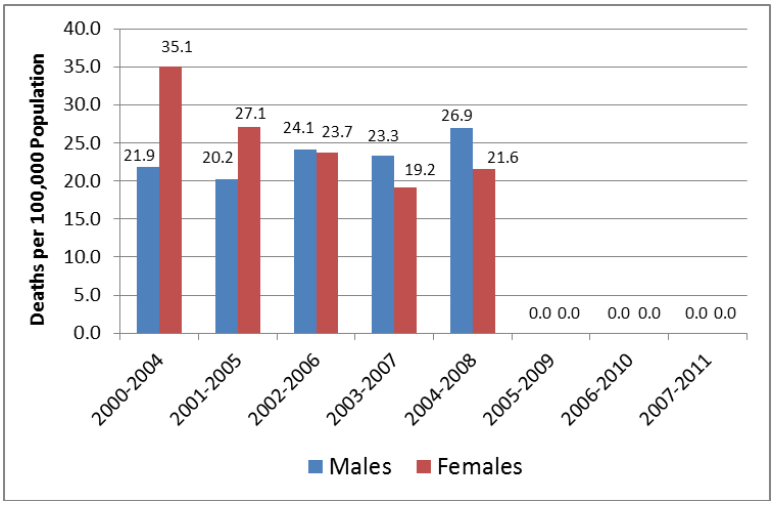
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	8	N/A	9	N/A	0	N/A	0	N/A	10	N/A	7	N/A	17	N/A
Regional Average	9	N/A	5	N/A	0	N/A	0	N/A	7	N/A	7	N/A	14	9.7
Jones County	5	N/A	5	N/A	0	N/A	0	N/A	3	N/A	7	N/A	10	N/A
State of NC	4,700	12.3	1,662	20.5	82	9.3	71	5.9	2,943	15.0	3,572	12.6	6,515	13.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 35 depicts gender-stratified septicemia mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- The data plotted in the graph below is erratic, likely because all the figures were based on small numbers of events and all the rates were either unstable or suppressed.

Figure 35. Sex-Specific Septicemia Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of septicemia deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the septicemia mortality rate generally was higher among males than among females in each racial group; among Hispanics, that pattern was reversed. Statewide, the septicemia mortality rate was highest among African American non-Hispanic males (24.0), followed by African American non-Hispanic females (18.4), white non-Hispanic males (13.5), white non-Hispanic females (11.4) and non-Hispanic males of other races (10.7). Septicemia mortality rates statewide were lowest among Hispanic males (4.9), Hispanic females (6.5), and non-Hispanic females of other races (8.2).

All Other Unintentional Injury

This category includes death without purposeful intent due to poisoning, falls, burns, choking, animal bites, drowning, and occupational or recreational injuries; it expressly excludes unintentional injury due to motor vehicle crashes. (Death due to injury involving motor vehicles is a separate cause of death and was covered previously.)

All other unintentional injury was unranked as a cause of death in Gates County and Jones County; it was the fifth leading cause of death in NC and the sixth region-wide in the 2007-2011 period (cited previously).

All Other Unintentional Injury Hospitalizations

Neither the NC SCHS nor the four regional hospitals participating in this assessment use a diagnosis specific for hospitalizations caused by non-motor vehicle injury. Table 160 presents the hospital discharge rate trend data from NC SCHS for a category called *Injuries and Poisonings,* which includes hospitalizations resulting from unintentional injuries of all sorts, including motor vehicle crashes.

- The injuries and poisonings inpatient hospitalization rate in Gates County was the lowest of the four presented in every year cited. In 2011 the Gates County rate was half the regional average.

Table 160. Injuries and Poisonings Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	4.4	3.6	3.0	3.4	2.4	2.6	2.6
Regional Average	6.6	6.3	6.3	5.6	5.3	5.6	5.2
Jones County	12.1	12.8	11.3	11.7	9.3	13.6	8.6
State of NC	8.5	8.6	8.6	8.5	8.3	8.2	8.2

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 31 injury and poisoning inpatient hospitalizations among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

The region's hospitals also maintain records of hospitalizations and ED admissions in an ICD-9 category called Injury and Poisoning (ICD-9 Codes 800-999).

Table 161 presents data on 2012 inpatient hospitalizations of Gates County residents at Albemarle Hospital for diagnoses of injury or poisoning. Note that this list does not include all diagnoses in the category. There were four inpatient hospitalizations at the four ARHS hospitals for treatment of injuries and poisoning among Gates County residents in 2012.

Table 161. Inpatient Hospitalizations of Gates County Residents for Injury and Poisoning, Albemarle Hospital (2012)

ICD-9 Code	Diagnosis	No. Discharges
800-829	Fractures	0
830-839	Dislocations	0
840-848	Sprains and strains	0
850-854	Intracranial injury	0
870-897	Open wounds	0
910-919	Superficial injury	0
930-939	Foreign body entering through orifice	0
960-979	Poisoning by drugs and medicinal substances	2
990--995	Other effects of external causes	1
996-999	Complications of surgical and medical care	1

Source: Albemarle Health

Table 162 presents data on the number of Albemarle Hospital emergency department admissions of Gates County residents in 2010-2012 for diagnoses associated with injury and poisoning. There were 471 such admissions in the period cited.

Table 162. Emergency Department Admissions of Gates County Residents for Injury and Poisoning, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
800-829	Fractures	10	25	19	54
830-839	Dislocations	2	1	3	6
840-848	Sprains and strains	42	37	50	129
850-854	Intracranial injury	2	1	2	5
870-897	Open wounds	20	33	19	72
910-919	Superficial injury	7	8	11	26
920-924	Contusions	23	22	36	81
930-939	Foreign body entering through orifice	5	6	3	14
940-949	Burns	2	2	4	8
958-959	Traumatic complications	11	10	12	33
960-979	Poisoning by drugs and medicinal substances	1	1	1	3
980-989	Toxic effects of chiefly nonmedicinal substances	0	1	3	4
990--995	Other effects of external causes	11	13	4	28
996-999	Complications of surgical and medical care	3	2	3	8
TOTAL		139	162	170	471

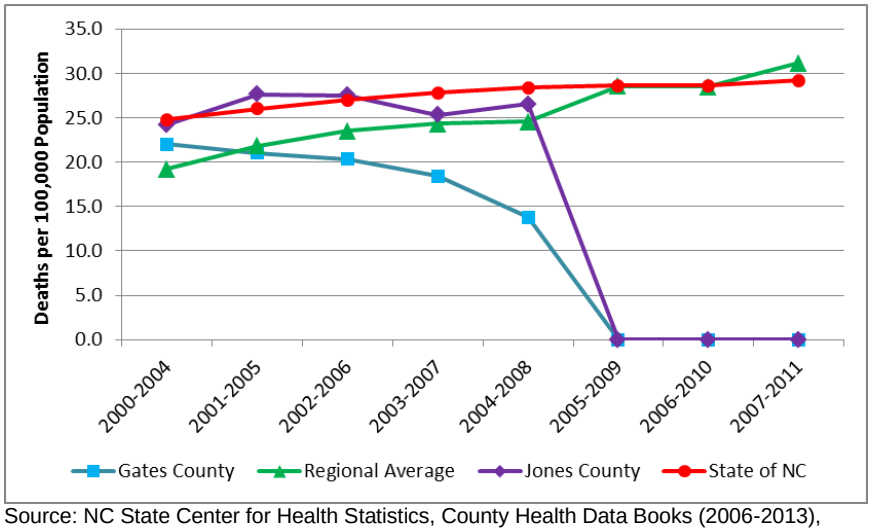
Source: Albemarle Health

All Other Unintentional Injury Mortality Rate Trend

Figure 36 displays the all other unintentional injury mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The all other unintentional injury mortality rate in Gates County fell over the first five aggregate periods before it was suppressed subsequently. The overall decrease between 2000-2004 and 2004-2008 was 37%. It should be noted however that all the rates in that period likely were unstable.
- Region-wide the mortality rate for all other unintentional injuries rose 62% over the period cited, from 19.3 in 2000-2004 to 31.2 in 2007-2011.
- The comparable rate in Jones County rose 10% over the period cited; however, all the rates in that county were unstable or suppressed.
- At the state level, the all other unintentional injury mortality rate rose 18% over the period cited.

Figure 36. Overall All Other Unintentional Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in All Other Unintentional Injury Mortality

Table 163 presents all other unintentional injury mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of all other unintentional injury deaths among some stratified populations, mortality rates were suppressed for those groups.
- Regionally, the mortality rate for African American non-Hispanics was 14% higher than the comparable rate for white non-Hispanics; at the state level, the direction of the 66% difference was the opposite.
- There appeared to be a gender differences in the all other unintentional injury mortality rate in each jurisdiction with non-suppressed rates, with rates for males higher than rates for females.

Table 163. Race/Ethnicity-Specific and Sex-Specific All Other Unintentional Injury Mortality (Single Five-Year Aggregate Period, 2007-2011)

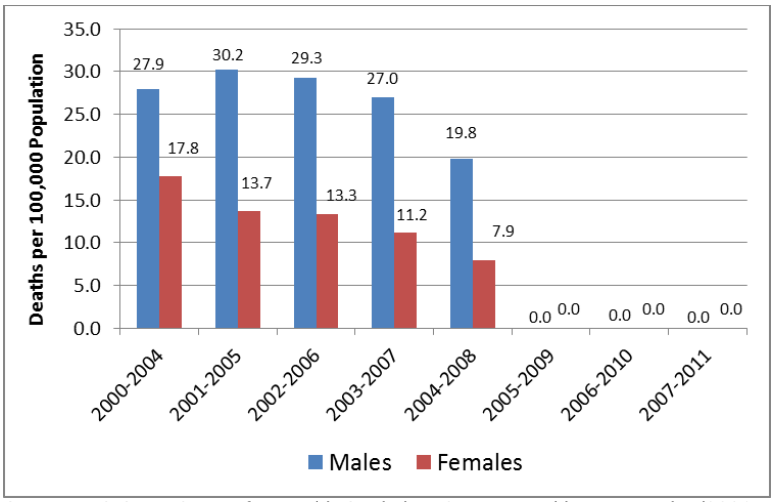
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	9	N/A	3	N/A	0	N/A	1	N/A	8	N/A	5	N/A	13	N/A
Regional Average	22	32.1	8	36.7	0	N/A	1	N/A	18	46.7	13	19.8	31	31.2
Jones County	9	N/A	0	N/A	0	N/A	1	N/A	5	N/A	5	N/A	10	N/A
State of NC	11,385	33.1	1,854	20.3	246	19.6	296	11.3	8,140	38.8	5,641	20.9	13,781	29.2

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 37 depicts gender-stratified all other unintentional injury mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- Despite the fact that all the data points for both genders were unstable or suppressed this data appears to indicate a significant gender disparity in mortality, with males experiencing the higher rate. Note that rates for both genders decreased over the period.

Figure 37. Sex-Specific All Other Unintentional Injury Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of all other unintentional injury deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the all other unintentional injury mortality rate in all racial groups was higher among males than females. Statewide, the all other unintentional injury mortality rate was highest among white non-Hispanic males (43.3), followed by African American non-Hispanic males (30.1), non-Hispanic males of other races (28.2), and white non-Hispanic females (24.1).

All other unintentional injury mortality rates statewide were lowest among female Hispanics (5.9), other non-Hispanic females (13.1), and African American non-Hispanic females (13.3).

Pneumonia and Influenza

Pneumonia and influenza are diseases of the lungs. 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. Influenza (the "flu") is a contagious infection of the throat, mouth and lungs caused by an airborne virus (61).

Pneumonia/influenza was an unranked cause of death in Gates County and Jones County in the 2007-2011 period due to below-threshold numbers of deaths; at that time it was the eleventh leading cause of death in the region, and the ninth statewide.

Pneumonia and Influenza Hospitalizations

Table 164 presents hospital discharge rate trend data. According to this data from NC SCHS, the lowest pneumonia and influenza hospital discharge rate in every year cited was in Gates County.

Table 164. Pneumonia and Influenza Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	2.4	2.0	2.0	1.9	1.3	1.1	1.3
Regional Average	4.1	3.5	2.6	3.0	2.9	2.7	2.8
Jones County	5.8	6.3	4.5	6.1	3.9	4.8	3.5
State of NC	4.1	3.7	3.4	3.3	3.5	3.1	3.2

Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 16 hospital admissions for pneumonia/influenza among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

The ICD-9 codes for pneumonia are 480-487 and the code for influenza is 488. Table 165 presents data on 2012 hospitalizations of Gates County residents for diagnoses in those categories. Five Gates County residents were hospitalized at Albemarle Hospital in 2012 with a diagnosis of pneumonia; none were hospitalized with a diagnosis of influenza.

Table 165. Inpatient Hospitalizations of Gates County Residents for Pneumonia and Influenza, Albemarle Hospital (2012)

ICD-9 Code	Diagnosis	No. Discharges
480-487	**Pneumonia**	5
488	**Influenza**	0

Source: Albemarle Health

Table 166 presents data on the number of emergency department admissions of Gates County residents at Albemarle Hospital in 2010-2012 associated with a diagnosis of pneumonia or

influenza. Over that period there were 32 ED visits with a diagnosis of pneumonia, and none with a diagnosis of influenza.

Table 166. Emergency Department Admissions of Gates County Residents for Pneumonia and Influenza, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
480-487	Pneumonia	6	18	8	32
488	Influenza	0	0	0	0

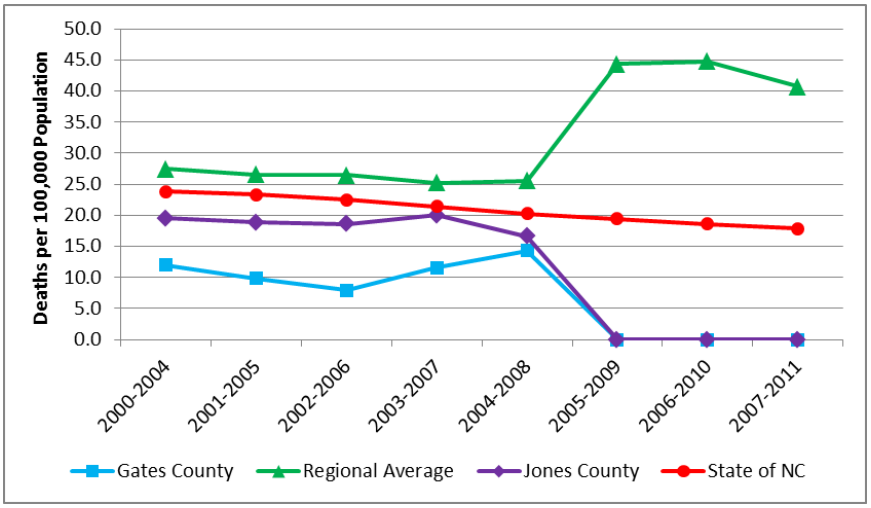
Source: Albemarle Health

Pneumonia and Influenza Mortality Rate Trend

Figure 38 displays the pneumonia/influenza mortality rate trend over time.

- Although all applicable rates were unstable or suppressed the pneumonia/influenza mortality rate in Gates County was the lowest throughout the period cited.
- The pneumonia/influenza mortality rate in Jones County, also unstable or suppressed throughout the period cited, was second-lowest among the comparators.
- Between the 2004-2008 and 2005-2009 aggregate periods the ARHS region experienced a large (73%) increase in the pneumonia/influenza mortality rate, from 25.6 to 44.4. While the increase stopped, the mortality rate in the region remained at the new, higher level.
- In the state as a whole, the pneumonia/influenza mortality rate fell gradually to a current low 17.9.

Figure 38. Overall Pneumonia and Influenza Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Pneumonia and Influenza Mortality

Table 167 presents pneumonia/influenza mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of pneumonia/influenza deaths among stratified populations, mortality rates were suppressed for those groups, so no county-level comparisons are possible.
- At the state level the pneumonia/influenza mortality rate for African American non-Hispanic persons was slightly lower than the rate for white non-Hispanic persons.
- There appeared to be a gender difference in the pneumonia/influenza mortality rate in each jurisdiction with non-suppressed rates, with males suffering the higher rates.

Table 167. Race/Ethnicity-Specific and Sex-Specific Pneumonia and Influenza Mortality (Single Five-Year Aggregate Period, 2007-2011)

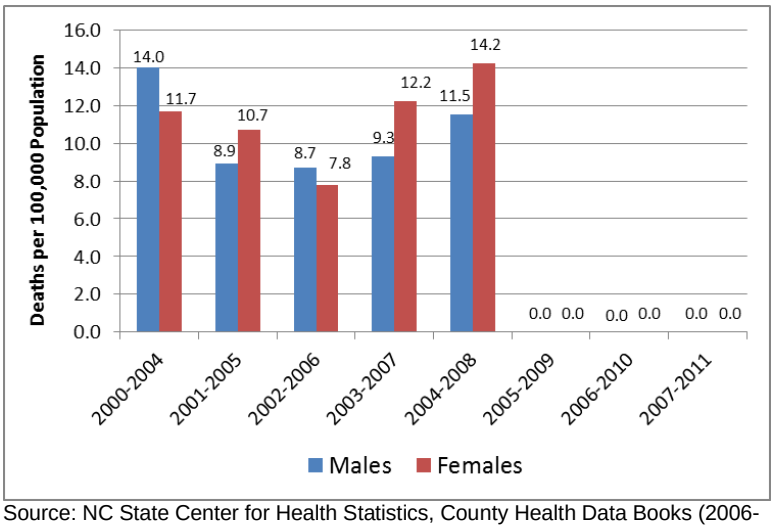
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	9	N/A	4	N/A	0	N/A	0	N/A	4	N/A	9	N/A	13	N/A
Regional Average	21	49.9	8	N/A	0	N/A	0	N/A	13	56.7	16	47.9	30	40.7
Jones County	5	N/A	8	N/A	0	N/A	0	N/A	5	N/A	8	N/A	13	N/A
State of NC	6,930	18.2	1,377	17.8	83	10.2	65	6.2	3,711	20.9	4,744	16.1	8,455	17.9

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 39 depicts gender-stratified pneumonia/influenza mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- It is not possible to discern a clear pattern of gender-based difference in the pneumonia/influenza mortality rate in Gates County, and interpretation is complicated by the fact that all the gender-stratified rates were either unstable or suppressed.

Figure 39. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of pneumonia/influenza deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the pneumonia/influenza mortality rate generally was higher among males than among females in each racial group; among Hispanics, the gender-stratified rates were the same. Statewide, the pneumonia/influenza mortality rate was highest among African American non-Hispanic males (22.9), followed by white non-Hispanic males (20.9), white non-Hispanic females (16.6), African American non-Hispanic females (15.1) and non-Hispanic males of other races (10.5). Pneumonia/influenza mortality rates statewide were lowest among Hispanic males and Hispanic females (both 6.2), and non-Hispanic females of other races (9.9).

Nephritis, Nephrotic Syndrome, and Nephrosis

Nephritis refers to inflammation of the kidney, which causes impaired kidney function. Nephritis can be due to a variety of causes, including kidney disease, autoimmune disease, and infection. Nephrotic syndrome refers to a group of symptoms that include protein in the urine, low blood protein levels, high cholesterol levels, high triglyceride levels, and swelling. Nephrosis refers to any degenerative disease of the kidney tubules, the tiny canals that make up much of the substance of the kidney. Nephrosis can be caused by kidney disease, or it may be a complication of another disorder, particularly diabetes (62,63).

Nephritis/nephrotic syndrome/nephrosis was an unranked cause of death in Gates County in 2007-2011 due to below-threshold numbers of deaths. It also was unranked in Jones County, ranked the ninth leading cause of death in the ARHS region, and the eighth statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after pneumonia and influenza.

Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations

Table 168 presents the hospital discharge rate trend data for the composite of kidney disorders. According to this data, the kidney disease discharge rate was lowest in Gates County in a majority of the years cited.

Table 168. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.8**	2.3	0.9	0.8	**0.6**	0.8	0.9
Regional Average	1.3	1.4	1.3	1.0	1.0	1.2	1.3
Jones County	2.2	2.0	2.0	1.2	2.8	1.6	4.1
State of NC	1.2	1.3	1.7	1.6	1.4	1.5	1.8

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 there were 11 hospital admissions for nephritis, nephrotic syndrome and nephrosis among Gates County residents; this figure includes hospitalizations anywhere in NC (54).

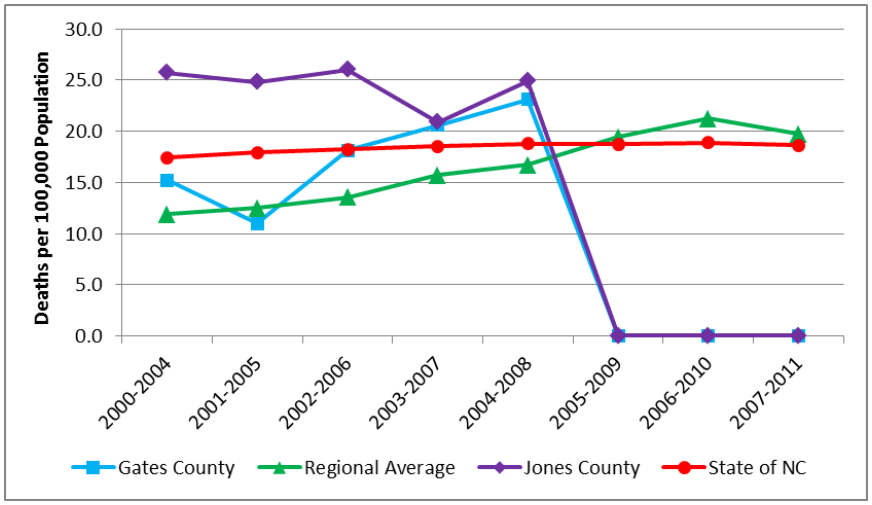
Diagnoses of nephritis, nephrotic syndrome and nephrosis are coded 580-589 in the ICD-9 system. There were four hospitalizations of Gates County residents at Albemarle Hospital in 2012 for diagnoses associated with nephritis, nephrotic syndrome and nephrosis. Additionally, over the period from 2010 through 2012 there were no visits of Gates County residents to the emergency department of Albemarle Hospital associated with a diagnosis in those code categories.

Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend

Figure 40 displays the kidney disease mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The kidney disease mortality rate was highest in Jones County and lowest in the ARHS region for much of the period cited. It should be noted, however, that all the rates for Jones County were unstable or suppressed, and the rates for the region were based on county rates some of which were unstable.
- In Gates County the kidney disease mortality rate, although technically unstable throughout the period cited, appeared to be increasing up to the point that rates were suppressed.
- Region-wide the kidney disease mortality rate rose 66%; however, the regional average rate was based on several unstable county rates.
- The kidney disease mortality rate for NC as a whole rose 7% overall between 2000-2004 and 2007-2011.

Figure 40. Overall Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Nephritis, Nephrotic Syndrome and Nephrosis Mortality

Table 169 presents kidney disease mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of kidney disease deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the kidney disease mortality rate among African American non-Hispanic persons was more than twice the rate for white non-Hispanic persons.
- Statewide, the kidney disease mortality rate was significantly higher among males than among females.

Table 169. Race/Ethnicity-Specific and Sex-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality
(Single Five-Year Aggregate Period, 2007-2011)

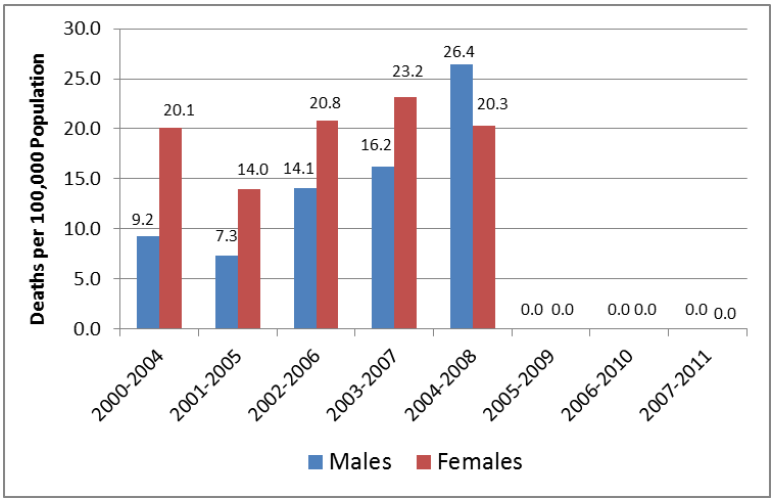
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	4	N/A	8	N/A	0	N/A	0	N/A	7	N/A	5	N/A	12	N/A
Regional Average	10	12.6	9	30.2	0	N/A	0	N/A	9	N/A	10	17.9	19	19.8
Jones County	4	N/A	10	N/A	0	N/A	1	N/A	7	N/A	8	N/A	15	N/A
State of NC	5,739	15.0	2,921	36.8	143	17.3	57	6.1	4,269	22.7	4,591	16.0	8,860	18.6

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 41 depicts gender-stratified kidney disease mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- No consistent pattern of gender-based difference in kidney disease mortality in Gates County can be discerned from the graph, perhaps because all the gender-stratified kidney disease mortality rates in the graph were either unstable or suppressed.

Figure 41. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Gates County
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of kidney disease deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the nephritis, nephrotic syndrome and nephrosis mortality rate was highest among African American non-Hispanic persons. Statewide, the kidney disease mortality rate was highest among African American non-Hispanic males (41.6), followed by African American non-Hispanic females (33.7), white non-Hispanic males (19.6), non-Hispanic females of other

races (17.5), and non-Hispanic males of other races (16.7). Kidney disease mortality rates statewide were lowest among Hispanic females (4.8), Hispanic males (7.7) and white non-Hispanic females (12.2).

Suicide

Suicide was an unranked cause of death in Gates County and Jones County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the tenth leading cause of death in the ARHS region and twelfth statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after kidney disease.

Suicide Hospitalizations

At the present time the NC SCHS does not track hospitalizations related to suicide or attempted suicide.

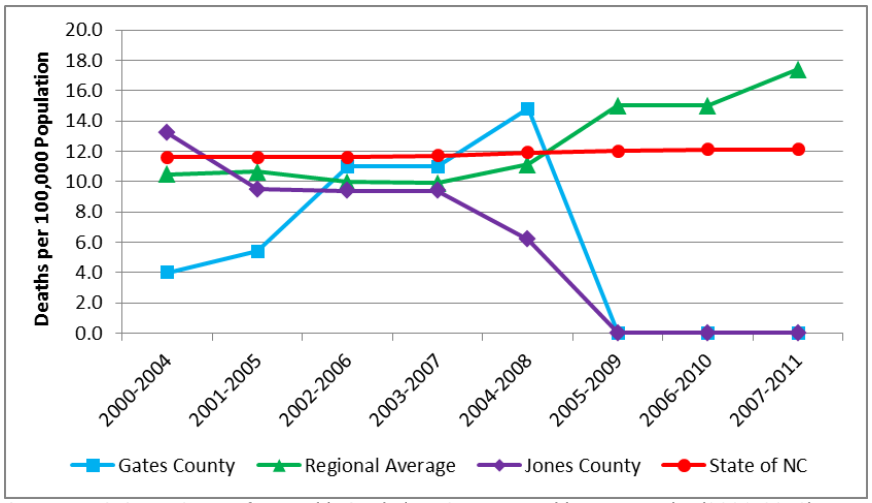
Hospitals do, however, track a diagnosis called Suicide Ideation, which is coded V62.84 in the ICD-9 system. There were no inpatient hospitalizations of Gates County residents at Albemarle Hospital with that ICD-9 code in 2012. There were, however, two emergency department visits there by Gates County residents over the period 2010-2012 coded for suicide ideation.

Suicide Mortality Rate Trend

Figure 42 displays the suicide mortality rate trend over time.

- The suicide mortality rates for Gates and Jones Counties all were unstable or suppressed. Over the period cited the rate in Gates County appeared to increase and the rate in Jones County appeared to decrease.
- The suicide mortality rate for the region increased 66%, from 10.5 in 2000-2004 to 17.4 in 2007-2011. However, since the regional rate represented an average of county rates many of which were themselves unstable, the regional rate likely was unstable as well.
- The state suicide rate was relatively static at approximately 11.8 throughout the period.

Figure 42. Overall Suicide Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Suicide Mortality

Table 170 presents suicide mortality data for the period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of suicide deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the suicide rate among white non-Hispanics was over three times the rate among African American non-Hispanics and Hispanics and twice the rate among non-Hispanics of other races.
- Statewide there appeared to be a gender-based difference in suicide mortality, with the rate for males over 3½ times the comparable rate for females.

Table 170. Race/Ethnicity-Specific and Sex-Specific Suicide Mortality (Single Five-Year Aggregate Period, 2007-2011)

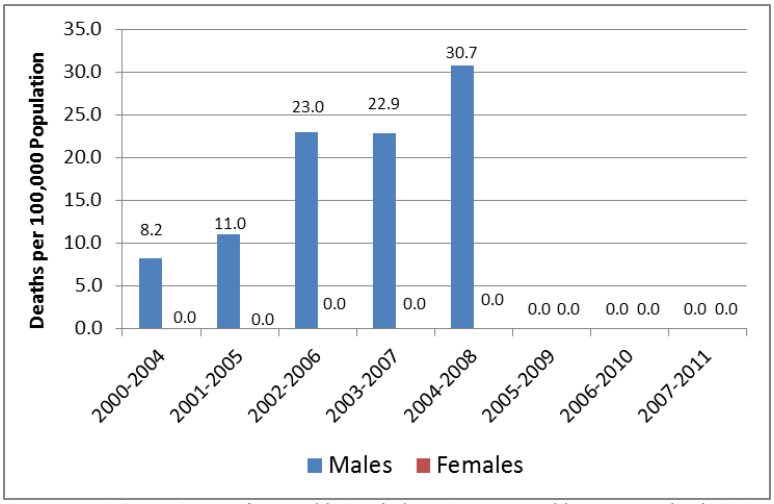
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	4	N/A	1	N/A	0	N/A	0	N/A	5	N/A	0	N/A	5	N/A
Regional Average	9	18.7	1	N/A	0	N/A	0	N/A	8	N/A	2	N/A	10	17.4
Jones County	3	N/A	1	N/A	0	N/A	0	N/A	3	N/A	1	N/A	4	N/A
State of NC	4,986	15.0	489	4.8	123	7.7	153	4.7	4,446	19.6	1,305	5.3	5,751	12.1

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 43 depicts gender-stratified suicide mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- There were no suicide deaths among females in Gates County in the period 2000-2004 through 2004-2008. The rates for females in the remaining periods were suppressed.
- The suicide mortality rate among Gates County males appeared to be increasing.

Figure 43. Sex-Specific Suicide Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of suicide deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the suicide mortality rate was higher among males than among females in each racial group. Statewide, the suicide mortality rate was highest among white non-Hispanic males (23.9), followed by non-Hispanic males of other races (11.0), African American non-Hispanic males (8.9), Hispanic males (7.0) and white non-Hispanic females (6.8). Suicide mortality rates statewide were lowest among African American non-Hispanic females (1.4), Hispanic females (1.7) and non-Hispanic females of other races (4.7).

Chronic Liver Disease and Cirrhosis

Chronic liver disease describes an ongoing disturbance of liver function that causes illness. Liver disease, also referred to as hepatic disease, is a broad term that covers all the potential problems that cause the liver to fail to perform its designated functions. Usually, more than 75% or three quarters of liver tissue needs to be affected before decrease in function occurs. Cirrhosis is a term that describes permanent scarring of the liver. In cirrhosis, the normal liver cells are replaced by scar tissue that cannot perform any liver function (64).

Chronic liver disease and cirrhosis was an unranked cause of death in Gates and Jones Counties and the ARHS region in 2007-2011 due to below-threshold numbers of deaths. It was ranked the thirteenth leading cause of death statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after suicide.

Chronic Liver Disease and Cirrhosis Hospitalizations

Table 171 presents hospital discharge rate trend data for chronic liver disease and cirrhosis. Note that all of the county-level rates were unstable.

Table 171. Chronic Liver Disease and Cirrhosis Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**0.2**	**0.3**	**n/a**	**0.1**	**0.1**	**0.1**	**0.1**
Regional Average	**0.3**	**0.3**	**0.2**	**0.3**	**0.2**	**0.1**	**0.2**
Jones County	**0.2**	**0.5**	1.1	**0.3**	**0.4**	**0.3**	**0.1**
State of NC	0.3	0.3	0.3	0.3	0.3	0.2	0.2

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

According to NC SCHS, in 2011 one Gates County resident was hospitalized for chronic liver disease and cirrhosis; this hospitalization may have occurred anywhere in NC (54).

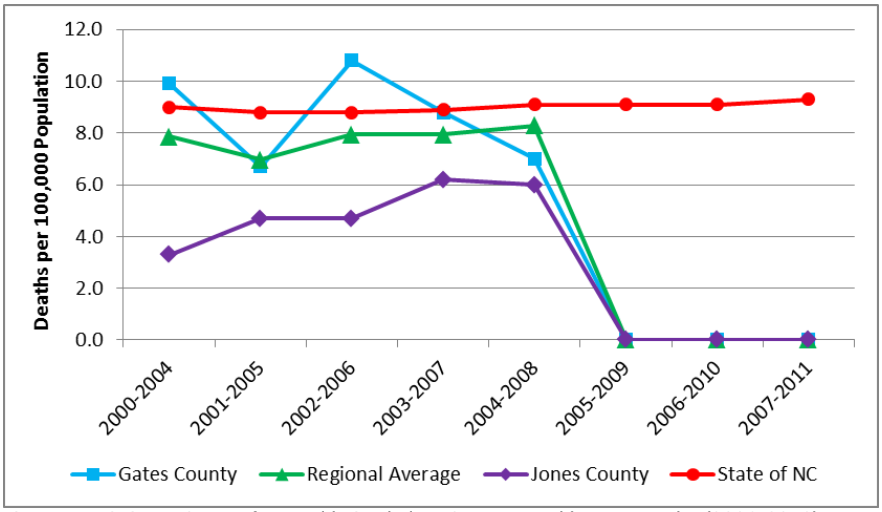
The ICD-9 Code for chronic liver disease and cirrhosis is 571, and the code for liver abscess and sequelae of chronic liver disease is 572. There were no hospitalizations of Gates County residents at Albemarle Hospital in 2012 for diagnoses associated with chronic liver disease and cirrhosis; there was one emergency department admission associated with liver disease codes over the period 2010-2012.

Chronic Liver Disease and Cirrhosis Mortality Rate Trend

Figure 44 displays the chronic liver disease and cirrhosis mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- All of the chronic liver disease and cirrhosis mortality rates plotted for Gates County or the other local jurisdictions were unstable or suppressed. Given the large number of unstable or suppressed rates detailed comparisons are not warranted.
- The chronic liver disease and cirrhosis mortality rate for NC as a whole was essentially unchanged at approximately 9.0 over the period cited.

Figure 44. Overall Chronic Liver Disease and Cirrhosis Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Chronic Liver Disease and Cirrhosis Mortality

Table 172 presents chronic liver disease and cirrhosis mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of chronic liver disease and cirrhosis deaths among stratified populations in Gates County and elsewhere, mortality rates were suppressed for those groups.
- Statewide, the chronic liver disease and cirrhosis mortality rate was significantly higher among males than among females, and somewhat higher among white non-Hispanics than among other racial and ethnic groups.

Table 172. Race/Ethnicity-Specific and Sex-Specific Chronic Liver Disease and Cirrhosis Mortality (Single Five-Year Aggregate Period, 2007-2011)

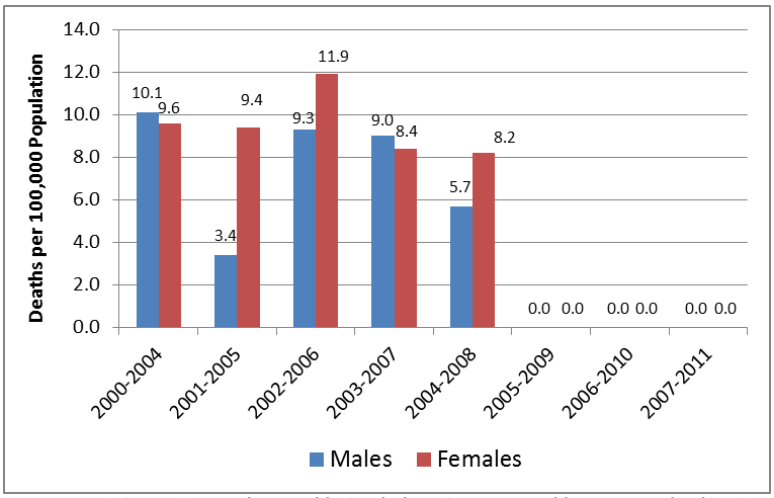
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	2	N/A	1	N/A	0	N/A	0	N/A	2	N/A	1	N/A	3	N/A
Regional Average	8	N/A	3	N/A	0	N/A	0	N/A	8	N/A	3	N/A	11	N/A
Jones County	3	N/A	2	N/A	1	N/A	0	N/A	2	N/A	4	N/A	6	N/A
State of NC	3,829	9.9	737	7.5	82	6.6	75	5.0	3,122	13.2	1,601	5.9	4,723	9.3

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 45 depicts gender-stratified chronic liver disease and cirrhosis mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- Gender-stratified liver disease mortality rates were variable over the period cited, due to instability or suppression. It would appear that the rate for females was higher than the rate for males in several of the periods with rates, but the degree of difference was not at all consistent.

Figure 45. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Gates County
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of chronic liver disease and cirrhosis deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the chronic liver disease and cirrhosis mortality rate generally was higher among males than among females in each racial and ethnic group. Statewide, the chronic liver disease and cirrhosis mortality rate was highest among white non-Hispanic males (14.1), followed by African American non-Hispanic males (11.0), non-Hispanic males of other races (7.8), Hispanic males (6.3) and white non-Hispanic females (6.2). Chronic liver disease and cirrhosis mortality rates statewide were lowest among African American non-Hispanic females (4.8), and non-Hispanic females of other races (5.6). The mortality rate for Hispanic females was suppressed due to below-threshold numbers of chronic liver disease and cirrhosis deaths.

Acquired Immune Deficiency Syndrome (AIDS)

The human immune deficiency virus (HIV) is the virus that causes AIDS. HIV attacks the immune system by destroying CD4 positive (CD4+) T cells, a type of white blood cell that is vital to fighting off infection. The destruction of these cells leaves people infected with HIV vulnerable to other infections, diseases and other complications. The acquired immune deficiency syndrome (AIDS) is the final stage of HIV infection. A person infected with HIV is diagnosed with AIDS when he or she has one or more opportunistic infections, such as pneumonia or tuberculosis, and has a dangerously low number of CD4+ T cells (less than 200 cells per cubic millimeter of blood) (65).

AIDS was an unranked cause of death in Gates County, Jones County, and the ARHS region in 2007-2011 due to below-threshold numbers of deaths. It was ranked the fifteenth leading cause of death statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after liver disease.

AIDS Hospitalizations

Table 173 presents hospital discharge rate trend data for AIDS. All the rates for Gates County, Jones County and the region were unstable or suppressed. Statewide, the AIDS hospital discharge was 0.2 for many years, but in 2011 decreased to 0.1.

Table 173. AIDS Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Gates County	**n/a**	**n/a**	**n/a**	**0.1**	**0.2**	**n/a**	**n/a**
Regional Average	**0.4**	**0.3**	**0.2**	**0.2**	**0.2**	**0.1**	**0.1**
Jones County	**0.2**	**n/a**	**0.3**	**0.1**	**n/a**	**0.3**	**0.1**
State of NC	0.2	0.2	0.2	0.2	0.2	0.2	0.1

Note: Bold type indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

In the ICD-9 coding scheme, AIDS falls in the category Infectious and Parasitic Diseases, with the specific code of 042. A review of the Albemarle Hospital data provided revealed no AIDS-related hospitalizations of Gates County residents in 2012. Neither were there any emergency department admissions of Gates County residents with AIDS in the period from 2010-2012.

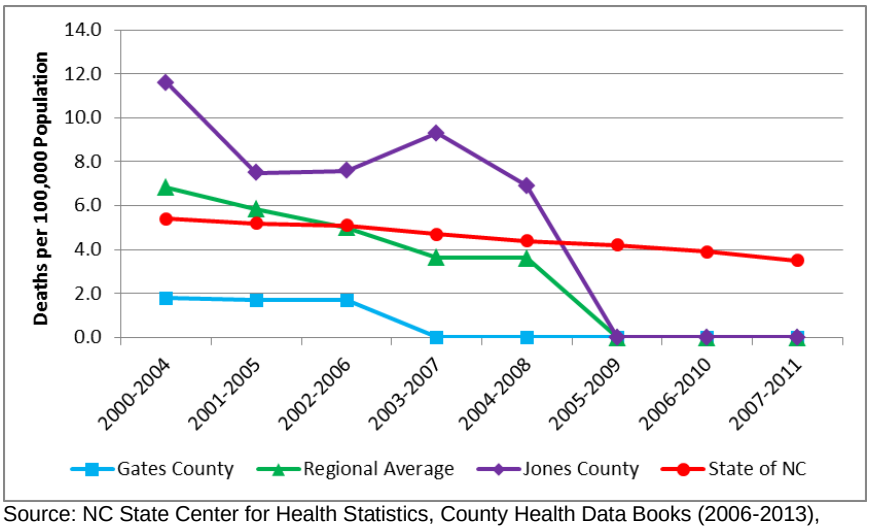
AIDS Mortality Rate Trend

Figure 46 displays the AIDS mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The county- and regional-level AIDS mortality rates for the entire period cited were unstable or suppressed. Despite the instability, it appeared that the AIDS mortality rate was decreasing in both counties and across the region.

- The AIDS mortality rate for NC as a whole decreased 35% (from 5.4 to 3.5) over the period cited.

Figure 46. Overall AIDS Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in AIDS Mortality

Table 174 presents AIDS mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of AIDS deaths among all stratified populations at the county level, mortality rates were suppressed for those groups.
- Statewide, the AIDS mortality rate was higher among males than among females, and highest among African American non-Hispanic persons.

Table 174. Race/Ethnicity-Specific and Sex-Specific AIDS Mortality (Single Five-Year Aggregate Period, 2007-2011)

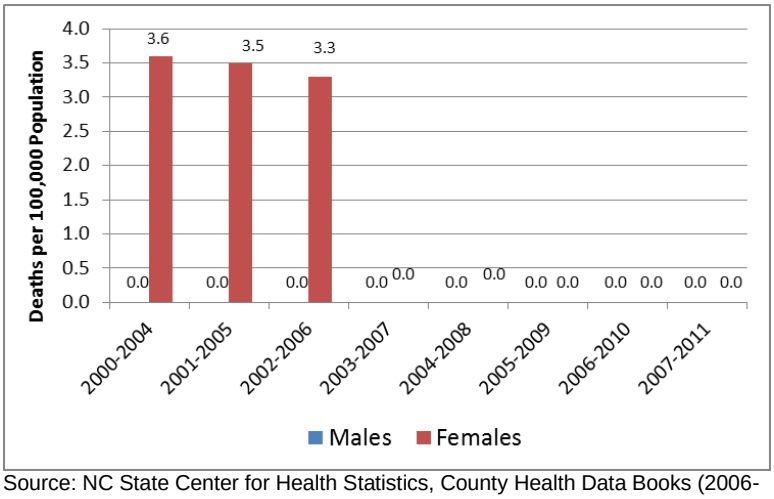
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	0	N/A	2	N/A	0	N/A	0	N/A	2	N/A	0	N/A	2	N/A
Regional Average	1	N/A	3	N/A	0	N/A	0	N/A	3	N/A	1	N/A	4	N/A
Jones County	1	N/A	2	N/A	0	N/A	0	N/A	2	N/A	1	N/A	3	N/A
State of NC	333	1.0	1,286	12.9	15	N/A	53	2.2	1,141	4.8	546	2.3	1,687	3.5

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 47 depicts gender-stratified AIDS mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- There were no AIDS deaths among Gates County males in the period from 2000-2004 through 2004-2008; after that, the AIDS mortality rates for that group were suppressed. There were AIDS deaths among Gates County females in the first three aggregate periods; after that the rate for females was zero for two periods and suppressed after that.

Figure 47. Sex-Specific AIDS Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of AIDS deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the AIDS mortality rate was highest among African American non-Hispanic males (18.2), followed by African American non-Hispanic females (8.7), Hispanic males (3.4), white non-Hispanic males (1.6) and white non-Hispanic females (0.4). AIDS mortality rates for the remaining three stratified racial and ethnic groups were suppressed due to below-threshold numbers of AIDS deaths.

Homicide

Homicide was an unranked cause of death in Gates County, Jones County, and the ARHS region in 2007-2011 due to below-threshold numbers of deaths. It was ranked the fourteenth leading cause of death statewide in that period (cited previously). It is being discussed here in this report on the basis of causing the next highest number of deaths in Gates County after AIDS.

Homicide Hospitalizations

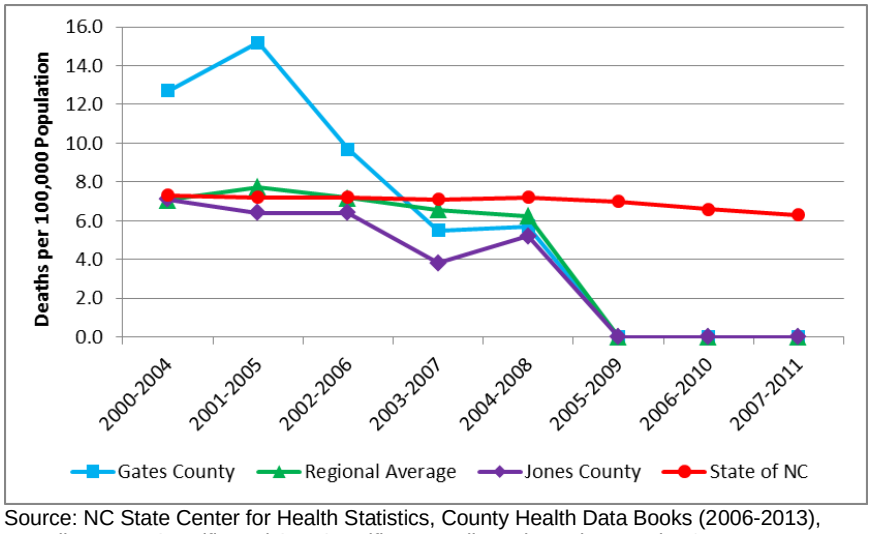
At the present time the NC SCHS does not track hospitalizations related to homicide or attempted homicide. There is an ICD-9 code descriptive of Homicidal Ideation (V62.85), but no Gates County residents were hospitalized at Albemarle Hospital under that code in 2012, and none were admitted to the emergency department there in the period 2010-2012.

Homicide Mortality Rate Trend

Figure 48 displays the homicide mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The homicide mortality rate in Gates County, while technically unstable, appeared to be the highest among the four jurisdictions in the first three aggregate periods, while falling from 12.7 to 5.7 overall from 2000-2004 to 2004-2008.
- The homicide mortality rates plotted for Jones County and the ARHS region all were unstable.
- At the state level, the homicide rate decreased 14% over the period cited.

Figure 48. Overall Homicide Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Gender and Racial Disparities in Homicide Mortality

Table 175 presents homicide mortality data for the period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of homicide deaths among stratified populations at the county level, all mortality rates were suppressed for those groups.
- At the state level, the homicide mortality rate for African American non-Hispanics was the highest among racially/ethnically-stratified population groups.
- Statewide, there appeared to be a gender-based difference in homicide mortality, with the rate for males over three times the comparable rate for females.

Table 175. Race/Ethnicity-Specific and Sex-Specific Homicide Mortality (Single Five-Year Aggregate Period, 2007-2011)

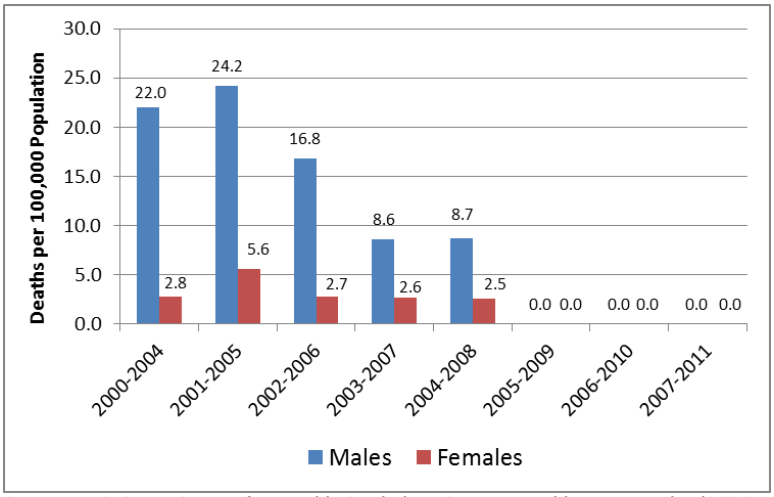
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Gates County	0	N/A	2	N/A	0	N/A	0	N/A	1	N/A	1	N/A	2	N/A
Regional Average	1	N/A	2	N/A	0	N/A	0	N/A	2	N/A	2	N/A	4	N/A
Jones County	1	N/A	1	N/A	0	N/A	0	N/A	2	N/A	0	N/A	2	N/A
State of NC	1,064	3.4	1,458	13.8	135	8.0	292	7.3	2,253	9.8	696	2.9	2,949	6.3

Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 49 depicts gender-stratified homicide mortality rates in Gates County for the aggregate periods 2000-2004 through 2007-2011.

- Although all the rates for both sexes were either unstable or suppressed due to below-threshold numbers of events, the disproportional gender-based pattern of homicide mortality depicted in the graph—a mortality rate higher among males—is common throughout NC.

Figure 49. Sex-Specific Homicide Mortality Rate Trend, Gates County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



Source: NC State Center for Health Statistics, County Health Data Books (2006-2013), Mortality, Race-Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Because of below-threshold numbers of homicide deaths in all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, so there is no race and sex-specific data to compare among counties or the region.

At the state level, the homicide mortality rate was highest among African American non-Hispanic males (23.9), followed by non-Hispanic males of other races (13.0), Hispanic males (11.6), African American non-Hispanic females (4.7) and white non-Hispanic males (4.5). Homicide mortality rates statewide were lowest among Hispanic females (2.0), followed by white non-Hispanic females (2.3) and non-Hispanic females of other races (3.4).

MORBIDITY

Morbidity refers generally to the current presence of injury, sickness or disease (and sometimes the symptoms and/or disability resulting from those conditions) in the living population. In this report communicable disease (including sexually-transmitted infections), asthma, diabetes, obesity, oral health, and mental health conditions are the topics covered under morbidity.

The parameter most frequently used to describe the current extent of any condition of morbidity in a population is *prevalence*: the number of existing cases of a disease or health condition in a population at a defined point in time or during a period. Prevalence usually is expressed as a proportion, not a rate, and often represents an estimate rather than a direct count.

Communicable Disease

A communicable disease is a disease transmitted through direct contact with an infected individual or indirectly through a vector.

Sexually Transmitted Infections

The topic of communicable diseases includes sexually transmitted infections (STIs). The STIs of greatest regional interest are chlamydia and gonorrhea. HIV/AIDS is sometimes grouped with STIs, since sexual contact is one mode of HIV transmission. While AIDS, as the final stage of HIV infection, was discussed previously among the leading causes of death, HIV is discussed here as a communicable disease.

Chlamydia

Chlamydia is the most frequently reported bacterial STI in the US, with an estimated 2.8 million new cases reported each year. Chlamydia cases frequently go undiagnosed and can cause serious problems in men and women, such as penile discharge and infertility respectively, as well as infections in newborn babies of infected mothers (66).

Table 176 presents incidence data (i.e., new cases diagnosed) on chlamydia infections.

- There is considerable variability in the annual incidence rates for chlamydia at the county level, which is not uncommon for an infectious disease (see also disclaimer, below).
- The chlamydia incidence rate in Gates County increased 65% between 2007 and 2011.
- The NC Communicable Disease Branch provides the following disclaimer to these chlamydia incidence data:

  Note: chlamydia case reports represent persons who have a laboratory-confirmed Chlamydial infection. It is important to note that Chlamydial infection is often asymptomatic in both males and females and most cases are detected through screening. Changes in the number of reported cases may be due to changes in screening practices. The disease can cause serious complications in females and a number of screening programs are in place to detect infection in young women. There are no comparable screening programs for young men. For this reason, Chlamydia case reports are always highly biased with respect to gender. The North Carolina STD Surveillance data system has undergone extensive changes since 2008 when North

Carolina implemented North Carolina Electronic Disease Surveillance System (NC ESS). During this transition, Chlamydia morbidity counts for some counties may have been affected. Report totals for 2011 should be considered with this in mind. Reports are summarized by the date received in the Communicable Disease Surveillance Unit office rather than by date of diagnosis.

Table 176. Chlamydia Infection Incidence Trend (2007-2011)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	2007		2008		2009		2010		2011	
	#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Gates County	32	272.6	41	349.1	35	297.4	46	377.1	55	450.9
Regional Average	62	313.1	80	385.1	93	446.8	88	405.3	96	436.4
Jones County	33	329.0	31	311.2	38	377.3	40	394.0	44	433.4
State Total	30,612	337.7	37,885	409.7	43,734	466.2	42,167	442.2	53,854	564.8

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2011 HIV/STD Surveillance Report, Table 7; http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf.

Gonorrhea

Gonorrhea is the second most commonly reported bacterial STI in the US. The highest rates of gonorrhea have been found in African Americans, people 20 to 24 years of age, and women, respectively. In women, gonorrhea can spread into the uterus and fallopian tubes, resulting in pelvic inflammatory disease (PID). PID affects more than 1 million women in the US every year and can cause tubal pregnancy and infertility in as many as 10 percent of infected women. In addition, some health researchers think gonorrhea adds to the risk of getting HIV infection (67).

Table 177 presents incidence data (i.e., new cases diagnosed) for gonorrhea infections.

- In Gates County the gonorrhea rate decreased by 22% over the period cited.

Table 177. Gonorrhea Infection Incidence Trend (Five-Year Aggregate Periods, 2002-2006 through 2006-2010)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	2002-2006		2003-2007		2004-2008		2005-2009		2006-2010	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Gates County	100	180.7	102	180.7	97	168.8	94	161.3	83	140.9
Regional Average	218	215.5	209	206.1	202	195.4	207	194.5	195	179.5
Jones County	113	220.6	103	200.8	72	140.0	67	130.6	66	131.4
State of NC	77,948	182.0	79,244	181.9	79,172	178.4	78,778	174.2	77,867	168.9

Note: Rates appearing in bold type are based on fewer than 10 cases per year. Such rates are unstable and should be interpreted with caution.
Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2011 HIV/STD Surveillance Report, Table 8; http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf.

Table 178 presents the 2006-2010 racially/ethnically-stratified gonorrhea infection rates for the four jurisdictions.

- In every jurisdiction the highest stable gonorrhea incidence occurred among the African American non-Hispanic population, in which group the incidence rate was as much as 10 times the comparable rate among the white non-Hispanic population.
- Gonorrhea incidence rates for other stratified groups at the local level were unstable.

- Statewide the lowest gonorrhea incidence rates occurred among Hispanics and white non-Hispanic persons.

Table 178. Gonorrhea Infection Incidence Rate, Stratified by Race/Ethnicity (Single Five-Year Aggregate Period, 2006-2010)

Location	Incidence, All Ages, Number and Rate (New cases per 100,000 population)									
	Total		White, Non-Hispanic		African American, Non-Hispanic		Other, Non-Hispanic		Hispanic	
	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate	# Cases	Rate
Gates County	83	140.9	**17**	**46.3**	64	306.9	**0**	**0.0**	**2**	**282.9**
Regional Average	195	179.5	34	51.6	158	430.1	0	*39.2*	2	*178.7*
Jones County	66	131.4	20	64.2	45	268.6	**1**	**293.3**	**0**	**0.0**
State Total	77,867	168.9	16,488	52.9	58,041	581.6	1,485	96.7	1,853	54.2

Note: Rates for 5-year aggregates appearing in **bold** type are based on fewer than 20 cases per five year period. Such rates are unstable and should be interpreted with caution.
Note: Regional arithmetic mean rates appearing in *italic* type include more than three unstable county rates. Such mean rates likely are unstable and should be interpreted with caution.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2012). NC Resident Gonorrhea Cases and Rates per 100,000 Population (years and counties as noted): http://www.schs.state.nc.us/schs/data/databook/

Human Immune Deficiency Virus (HIV)

From the standpoint of traditional incidence rates, the numbers of new HIV cases in small counties like Gates County and its comparators tend to be low and yield extremely variable or suppressible rates. (For example, there were two new HIV case in Gates County in the three-year period from 2009-2011.) Instead, Table 179 approximates a *prevalence* estimate for each jurisdiction on the basis of how many persons are living with HIV on a particular date.

- As of December 31, 2011 there were 8 persons with HIV/AIDS living in Gates County; the average number per county in the ARHS region was 37.

Table 179. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2011 (By County of Residence)

Location	Number of Living Cases
Gates County	8
Regional Average	37
Jones County	23
State of NC	26,168

Source: NC DHHS, Division of Public Health, Epidemiology Section, Communicable Disease Branch. Facts and Figures, Annual Reports. North Carolina 2011 HIV/STD Surveillance Report, Table 1; http://epi.publichealth.nc.gov/cd/stds/figures/std11rpt.pdf.

Other Communicable Diseases

Communicable diseases fall in the ICD-9 code category 001-139, Infectious and Parasitic Diseases.

- In 2012 there were no inpatient hospitalizations of Gates County residents at Albemarle Hospital associated with diagnoses of infectious and parasitic diseases.

Table 180 lists a summary of emergency department visits to Albemarle Hospital by Gates County residents that resulted in diagnoses of infectious and parasitic diseases in *selected categories*. Note that this list includes only common and familiar diagnoses; there are too many diagnoses in total to include them all. The period covered is 2010-2012. The list covers 44 total ED visits.

- Among the eight ED admissions for intestinal infectious diseases listed, the most common diagnosis (six cases) was non-specific viral enteritis.
- Among the 11 ED admissions for other bacterial diseases listed, the most common diagnosis (10 cases) was streptococcal sore throat.
- Among the three ED admissions for viral diseases generally accompanied by exanthema (rash) listed, the most common diagnosis (two cases) was *Herpes zoster* (e.g., shingles).
- Among the 13 ED admissions for mycoses (fungal infections) listed, the most common diagnosis (seven cases) was candidiasis (i.e., yeast infection).

Table 180. Emergency Department Admissions of Gates County Residents for Infectious and Parasitic Diseases, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Emergency Department Visits		
		Albemarle Hospital		
		2010	2011	2012
001-009	**Intestinal Infectious Diseases**			
008.8	Viral enteritis	1	1	6
009	Ill-defined intestinal infections	0	0	0
030-041	**Other bacterial diseases**			
034.0	Streptococcal sore throat	1	7	2
034.1	Scarlet fever	0	0	1
050-059	**Viral diseases generally accompanied by exanthem**			
053	Herpes zoster (incl. shingles)	2	0	0
054	Herpes simplex	0	0	1
070-079	**Other diseases due to viruses and chlamydiae**			
075	Infectious mononucleosis	1	0	2
110-118	**Mycoses**			
110	Dermatophytosis	0	2	4
112	Candidiasis	2	4	1
130-136	**Other infectious and parasitic diseases**			
133.0	Scabies	1	5	0

Source: Albemarle Health.

Asthma

Asthma, a disease that affects the lungs, is one of the most common long-term diseases of children, but adults also can have asthma. Asthma causes wheezing, breathlessness, chest tightness, and coughing at night, early in the morning, or upon exertion. The symptoms result because the sides of the airways in the lungs swell and the airways shrink. Less air gets in and out of the lungs, and mucous naturally produced by the body further clogs the airways. In most cases, the cause of asthma is unknown (although there likely is a hereditary component), and there is no known cure. Asthma can be hard to diagnose (68).

Table 181 presents hospital discharge data for asthma, stratified by age, for the period 2008-2010. (At the present time this is the best measure of asthma prevalence available from NC SCHS.)

- County-level data for youth (0-14) exhibited considerable variability due to small and varying numbers of asthma cases and resulting unstable rates.
- At the state level, the discharge rate for youth (age 0-14) was from 32% to 54% higher than the discharge rate for all ages.

Table 181. NC Hospital Discharges with a Primary Diagnosis of Asthma, Numbers and Rates per 100,000 (2008-2010)

Location	Discharges, Number and Rate (Discharges per 100,000 Population)											
	2008				2009				2010			
	All Ages		Age 0-14		All Ages		Age 0-14		All Ages		Age 0-14	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Gates County	**8**	**67.6**	N/A	N/A	**6**	**50.8**	**1**	**47.6**	**8**	**65.6**	**0**	**0.0**
Regional Average	25	123.0	5	128.2	22	108.4	4	85.4	22	117.2	5	131.7
Jones County	15	145.7	**3**	**181.5**	17	167.5	**6**	**381.9**	17	167.4	**4**	**221.5**
State of NC	10,644	115.4	2,778	151.9	10,986	117.1	3,228	175.0	10,470	109.8	3,152	166.0

Note: Bold type indicates a likely unstable rate based on a small (fewer than 10) number of cases.
Source: NC State Center for Health Statistics, County-level Data, County Health Data Book (2010-2013), Morbidity, Asthma Hospital Discharges (Total and Age 10-14) per 100,000 Population (years and counties as noted); http://www.schs.state.nc.us/SCHS/data/databook.

In the ICD-9 system, asthma carries the code 493 and is classified within the broad category, Chronic Obstructive Pulmonary Disease and Allied Conditions (code range of 490-496). According to data from Albemarle Hospital, there were no inpatient hospitalizations there for asthma among Gates County residents in 2012.

Table 182 presents data on the number of emergency department admissions of Gates County residents to Albemarle Hospital in 2010-2012 for diagnoses associated with asthma. For that period there were 34 such ED admissions, nine of which were pediatric (age 0-17) cases.

Table 182. Emergency Department Admissions of Gates County Residents for Asthma, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
493	**Asthma**	11	10	13

Source: Albemarle Health

Diabetes

Diabetes mellitus, or simply, diabetes, is a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. There are three major types of diabetes:

Type 1 diabetes results from the body's failure to produce insulin. This form was previously referred to as "insulin-dependent diabetes mellitus" or "juvenile diabetes". *Type 2 diabetes* results from insulin resistance, a condition in which cells fail to use insulin properly, sometimes combined with an absolute insulin deficiency. This form was previously referred to as “non-insulin-dependent diabetes mellitus” or "adult-onset diabetes". The third main form, *gestational diabetes,* occurs when pregnant women without a previous diagnosis of diabetes develop a high blood glucose level. Gestational diabetes is caused by the hormones of pregnancy or a shortage of insulin. Although this form of diabetes usually goes away after the baby is born, a woman who has had it is more likely to develop Type 2 diabetes later in life.

In recent years, medical professionals have begun to diagnose *prediabetes*, a condition in which blood glucose levels are higher than normal but not high enough for a diagnosis of diabetes. People with prediabetes are at increased risk for developing Type 2 diabetes and for heart disease and stroke (69).

As discussed previously in the mortality section of this report, diabetes was the fourth leading cause of death in Gates County for the 2007-2011 aggregate period, causing 32 deaths. However, diabetes is a chronic condition, and, as noted above can have multiple significant health effects on its sufferers long before it might cause death.

Table 183 presents estimates of the prevalence of diagnosed diabetes in adults age 20 and older in Gates County and its local comparators (state-level data was not available).

- Gates County had the highest or second-highest prevalence of diagnosed diabetes in adults throughout the period cited.
- The five-year average prevalence in Gates County was 12.3%; the five-year average for the region was 11.4%, and the five-year average for Jones County was 13.1%.
- In Gates County the prevalence of diabetes increased 5% between 2005 and 2009; regionally the increase was 11%. In Jones County diabetes prevalence increased 21%.

Table 183. Adult Diagnosed Diabetes Prevalence Estimate Trend (Five Single Years, 2005 through 2009)

Location	Estimated Prevalence, Number and Percent (Age-adjusted)									
	2005		2006		2007		2008		2009	
	#	%	#	%	#	%	#	%	#	%
Gates County	987	12.1	1,073	12.6	1,068	12.3	1,037	11.8	1,087	12.7
Regional Average	1,457	11.1	1,502	11.1	1,533	11.3	1,578	11.3	1,718	12.3
Jones County	923	12.0	948	12.3	1,034	13.4	1,016	13.1	1,115	14.5
State Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.
Source: Centers for Disease Control and Prevention, Diabetes Data and Trends, *County Level Estimates of Diagnosed Diabetes - of Adults in North Carolina, 2005-2010;* http://apps.nccd.cdc.gov/ddtstrs/default.aspx.

As noted previously in the discussion of diabetes mortality, in 2012 there were five inpatient hospitalizations at Albemarle Hospital among Gates County residents for diabetes, and from 2010-2012 there were 17 ED admissions there associated with the diagnosis of diabetes.

Obesity

Obesity in Adults

Table 184 presents recent estimates of the prevalence of diagnosed obesity in adults age 20 and older in the three local jurisdictions being compared in this CHA. Comparable state-level data was not available.

- Gates County had the highest prevalence of diagnosed obesity in adults throughout the period cited. No state-level data was available.
- The five-year average prevalence of adult obesity in Gates County was 33.6%; in Jones County the five-year average prevalence was 32.0%, and regionally the five-year average prevalence was 31.5%.
- In Gates County the prevalence of obesity increased 6% between 2005 and 2009; regionally the increase was 13%. In Jones County diabetes prevalence increased 14%.

Table 184. Adult Diagnosed Obesity Prevalence Estimate Trend (Five Single Years, 2005 through 2009)

Location	Estimated Prevalence, Number and Percent (Age-adjusted)									
	2005		2006		2007		2008		2009	
	#	%	#	%	#	%	#	%	#	%
Gates County	2,681	32.8	2,848	33.4	2,901	33.4	2,944	33.5	2,973	34.8
Regional Average	3,934	29.5	4,207	30.7	4,401	31.9	4,490	32.0	4,730	33.4
Jones County	2,324	30.4	2,390	31.1	2,446	31.8	2,476	31.9	2,672	34.7
State Total	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: The prevalence of diagnosed diabetes and selected risk factors by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the U.S. Census Bureau's Population Estimates Program. Three years of data were used to improve the precision of the year-specific county-level estimates of diagnosed diabetes and selected risk factors.
Source: Centers for Disease Control and Prevention, Obesity Data and Trends, *County Level Estimates of Diagnosed Obesity - of Adults in North Carolina, 2005-2010;* http://apps.nccd.cdc.gov/ddtstrs/default.aspx.

Obesity in Children

The NC Healthy Weight Initiative, using the NC Nutrition and Physical Activity Surveillance System (NC NPASS), collects height and weight measurements from children seen in NC DPH-sponsored WIC and Child Health Clinics, as well as some school-based Health Centers (70). (It is important to note that this data is not necessarily representative of the county-wide population of children.) This data is used to calculate Body Mass Indices (BMIs) in order to gain some insight into the prevalence of childhood obesity. BMI is a calculation relating weight to height by the following formula:

BMI = (weight in kilograms) / (height in meters)

For children, a BMI in the 95th percentile or above is considered “obese” (formerly defined as “overweight”), while BMIs that are between the 85th and 94th percentiles are considered “overweight” (formerly defined as “at risk for overweight”).

Table 185 presents NC NPASS data for children ages 2-4 who were in the program over the period 2007-2011.

- In Gates County the percent of both overweight and obese 2-4 year olds rose and fell without apparent pattern from 2007 through 2009. After that data there were too few children in the program to yield stable rates.

- Region-wide between 2008 and 2011 there was a net decrease of 3% in the prevalence of obesity and 2% decrease in the prevalence of overweight among 2-4 year olds in the program.
- At the state-level, there appeared to be a slight increase in the percent of children in the "obese" category, rising from 15.3% in 2007 to 15.7% in 2011, but the change may not be significant.

Table 185. Prevalence of Obesity and Overweight in Children, Ages 2-4, NC NPASS (2007-2011)

Location	Prevalence of Overweight and Obesity in Children Ages 2-4, by Percent									
	2007		2008		2009		2010		2011	
	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese
Gates County	16.0	16.0	14.3	18.6	17.0	13.6	**N/A**	16.2	**N/A**	**N/A**
Regional Average	14.9	15.2	15.5	17.1	14.0	15.1	15.6	16.2	15.2	16.6
Jones County	13.2	10.9	14.7	12.2	15.7	10.2	**N/A**	**N/A**	**N/A**	**N/A**
State of NC	15.7	15.3	16.3	15.4	15.8	15.4	16.1	15.6	16.2	15.7

Note: Figures denoted in **bold** type indicate percentages based on fewer than 10 cases.
Note: NC-NPASS data for children ages 2 to 4 are reflective of the population at 185% of the federal poverty level. Approximately 85 to 95% of the children included in the NC-NPASS sample for ages 2 to 4 are WIC participants. Since children are not eligible to participate in WIC once they become 5 years old, the sample size for NC-NPASS data received from the child health clinics was not adequate to calculate county-specific rates for children age 5 and older.
Source: Eat Smart, Move More, Data on Children and Youth in NC, North Carolina Nutrition and Physical Activity Surveillance System (NC-NPASS), NC-NPASS Data (2005-2011), counties and age groups as noted; http://www.eatsmartmovemorenc.com/Data/ChildAndYouthData.html.

Oral Health

Adult Oral Health

Counties are expected to use data from the annual Behavioral Risk Factor Surveillance System (BRFSS) survey to describe dental problems in the community. In NC, the BRFSS survey results are compiled on the county level only for large jurisdictions or metropolitan areas. Gates County responses are combined among those of 40 other counties in an eastern NC region BRFSS data summary. Consequently, it is necessary to look elsewhere to adequately describe the dental needs of adults in Gates County.

As noted in the Health Resources section of this report the ratio of dentists-to-population in Gates County is very low, and there apparently is no dentist in the county that accepts Medicaid and/or HealthChoice patients. With resources for dental care in such short supply, it might be expected that county residents would have some difficulty accessing needed dental care.

Sometimes an indicator of a dental care access problem is the frequency with which the local emergency department is used as a dental provider. The ICD-9 Codes 520-525, Diseases of Oral Cavity, Salivary Glands, and Jaws, include diagnoses typically associated with dentistry (e.g., dental caries, gingivitis, periodontitis, tooth loss, etc.). Table 186 lists ED visits to Albemarle Hospital in 2010-2012 by Gates County residents for conditions associated with this code category.

- For the three year period 2010-2012, Gates County residents made a total of 45 visits to the Albemarle Hospital ED for attention to dental problems.

Table 186. Emergency Department Admissions of Gates County Residents for Dental Conditions, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
520.6	Disturbance in tooth eruption	0	0	0
520.7	Teething syndrome	0	0	0
521.0	Dental caries	2	10	4
522	Diseases of pulp and periapical tissue	1	1	0
523	Gingival and periodontal disease	2	0	0
524	Dentofacial anomalies, including malocclusion	2	0	0
525	Other diseases of the teeth and supporting structure	7	6	10
Total		14	17	14

Source: Albemarle Health

Since cost of dental care can be daunting but is covered for Medicaid-eligible patients, it is interesting to examine the proportion of Medicaid clients who actually receive dental services. Table 187 presents dental service utilization figures for Medicaid clients for SFY2010.

- From this data it appears that Medicaid-eligible persons under the age of 21 in Gates County received dental services at a 24% higher proportion than Medicaid-eligible

persons age 21 and older. The direction, if not the proportion, of difference is the same in the other three jurisdictions.

Table 187. Dental Service Utilization by Medicaid Recipients, by Age Group (SFY2010)

Location	SFY2010					
	<21 Years Old			21+ Years Old		
	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services	# Eligible for Services	# Receiving Services	% Eligibles Receiving Services
Gates County	1,233	386	31.3	888	224	25.2
Regional Average	2,256	773	34.6	1,716	464	26.5
Jones County	1,285	690	53.7	1,040	327	31.4
State Total	1,113,692	541,210	48.6	679,139	214,786	31.6

Source: NC DHHS, NC Division of Medical Assistance, Statistics and Reports, County Specific Snapshots for NC Medicaid Services (2008 and 2011); http://www.ncdhhs.gov/dma/countyreports/index.htm.

Child Oral Health

Each year about 200,000 NC elementary school children participate in dental screenings, also called assessments. Public health dental hygienists screen for tooth decay and other disease conditions in individuals. The hygienists refer children who have dental problems and need dental care to public or private practice dental care professionals (71).

Table 188 presents partial summaries of the screenings conducted in SY2005-2006 through SY2008-2009.

- An average of 95.3% of kindergarteners, and 93.3% of fifth graders in Gates County were screened over the period cited. Statewide, an average of 81.0% of kindergarteners and 76.8% of fifth graders were screened over the same period.
- An average of 15.3% of kindergarteners and 5.3% of fifth graders in Gates County had untreated decay over the period cited. Statewide, an average of 18.8% of kindergarteners and 4.3% of fifth graders had untreated decay over the same period.

Table 188. Child Dental Screening Summary (SY2005-2006 through SY2008-2009)

Location	School Dental Screening Results															
	SY2005-2006				SY2006-2007				SY2007-2008				SY2008-2009			
	Kindergarten		5th Grade		Kindergarten		5th Grade		Kindergarten		5th Grade		Kindergarten		5th Grade	
	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay	% Screened	% Untreated Decay
Gates County	99.0	20.0	90.0	7.0	90.0	12.0	94.0	8.0	96.0	16.0	94.0	4.0	96.0	13.0	95.0	2.0
Regional Average	99.6	29.0	96.7	7.3	95.1	22.9	94.7	5.7	93.3	20.9	95.1	4.3	96.6	21.0	94.4	2.9
Jones County	94.0	30.0	100.0	9.0	92.0	26.0	88.0	7.0	96.0	31.0	93.0	12.0	91.0	33.0	95.0	7.0
State of NC	82.0	21.0	76.0	5.0	78.0	19.0	81.0	4.0	81.0	18.0	73.0	4.0	83.0	17.0	77.0	4.0

Source: NC DHHS, Oral Health, References and Statistics, School Oral Health Assessments, NC County Level Oral Health Assessment Data by Year (years and counties as noted); http://www.ncdhhs.gov/dph/oralhealth/stats/MeasuringOralHealth.htm.

Mental Health

With the mental health system in the state—and Gates County—still coping with system reform growing pains, mental health merits a closer look.

As previously noted in the Mental Health Services and Facilities section of this report, the unit of NC government responsible for overseeing mental health services is the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS).

In 2001, the NC General Assembly passed the Mental Health System Reform Act, which ended the previous system by which quasi-independent local entities such as counties and regional agencies delivered mental health services by directly employing the care providers. The new law essentially privatized mental health services by requiring the governmental local management entities (LMEs) to contract with other public or private providers or provider groups to serve area residents in need of mental health services. The local counties and regions no longer directly controlled the provision of services, but instead were responsible for managing provider contracts (72).

The local management entity serving Gates County (as well as the rest of the ARHS region) is East Carolina Behavioral Health (ECBH), which is headquartered in Greenville, NC.

One goal of mental health reform in NC was to refocus mental health, developmental disabilities and substance abuse care in the community instead of in state mental health facilities. The data below clearly illustrates how utilization of state-level services has diminished.

Mental Health Service Utilization

Table 189 presents an annual summary of the number of persons in each jurisdiction served by LMEs/Area Programs from 2005 through 2010.

- In Gates County the number of persons served by mental health area programs fluctuated over the period cited, but fell 24% overall between 2005 and 2010.
- Statewide, there was a decrease in number of persons served between 2007 and 2008, but the state totals have since recovered near to 2005 levels.

Table 189. Persons Served by Mental Health Area Programs/Local Management Entities (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Gates County	536	543	491	471	545	410
Regional Average	758	724	730	730	733	706
Jones County	230	194	201	242	274	236
State of NC	337,676	322,397	315,338	306,907	309,155	332,796

Note: The figures in the table represent all clients of a community-based Area Program for mental health, developmental disabilities, and drug and alcohol abuse active at the beginning of the state fiscal year plus all admissions during the year. Also included are persons served in three regional mental health facilities. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. State figures include clients reported to reside out-of-state and sometimes contains individuals of Unknown County of residence.
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Since mental health reform in NC, only the most seriously ill mental health patients qualify for treatment at state psychiatric hospitals. The individual must be assessed as meeting the diagnostic criteria for (1) acute schizophrenia and/or other psychotic disorders, (2) acute mood disorders or (3) the combination of both, with or without medical and/or physical complications that are within the parameters of what the state hospital can manage (73).

At the present time, there are three state-operated psychiatric hospitals in NC: Broughton Hospital (Morganton), Central Regional Hospital (Butner), and Cherry Hospital (Goldsboro).

Table 190 presents a summary of the number of persons in each jurisdiction served in NC State Psychiatric Hospitals for the period from 2005 through 2010.

- The number of persons served in state psychiatric hospitals decreased in every jurisdiction over the period cited. In Gates County, the net decrease from 2005 to 2010 was 92%.

Table 190. Persons Served in NC State Psychiatric Hospitals (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Gates County	13	12	6	6	1	1
Regional Average	41	39	33	18	13	9
Jones County	34	23	23	23	10	2
State of NC	18,435	18,292	18,498	14,643	9,643	7,188

Note: Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 519); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Table 191 presents ED admissions of Gates County residents to Albemarle Hospital relative to ICD-9 Codes 290-319, Mental, Behavioral and Neurodevelopmental Disorders for the period 2010-2012. Of specific interest in this case are the numbers of admissions for mental health diagnoses excluding dementias, which were covered in the discussion of Alzheimer's disease in the mortality section of this report. The period covered is 2010-2012.

- In the period cited there was a total of 39 ED visits by Gates County residents to the Albemarle Hospital ED with complaints diagnosed as mental or behavioral disorders. Note that the diagnoses listed are only *some* of those included in the entire category.
- The most commonly diagnosed mental health problem among this patient group was anxiety, dissociative or somatoform disorders, which represented 51% of all the visits listed in the table.

Table 191. Emergency Department Admissions of Gates County Residents for Mental, Behavioral and Neurodevelopmental Disorders, Albemarle Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
290-319	**Mental, Behavioral and Neurodevelopmental Disorders**				
291	Alcohol-induced mental disorders	0	0	0	0
292	Drug-induced mental disorders	0	1	2	3
295	Schizophrenic disorders	0	1	0	1
296	Episodic mood disorders (including bipolar disorder)	0	0	2	2
298	Other nonorganic and unspecified mood disorders	0	1	1	2
300	Anxiety, dissociative and somatoform disorders	5	7	8	20
303	Alcohol dependence syndrome	0	0	1	1
304	Drug dependency	4	0	2	6
305	Non-dependent abuse of drugs	0	0	1	1
311	Depressive disorder, not elsewhere classified	0	1	2	3
Total		9	11	19	39

Source: Albemarle Health

Developmental Disabilities Service Utilization

According to NC MH/DD/SAS, *developmental disability* means a severe, chronic disability of a person which:

a. is attributable to a mental or physical impairment or combination of mental and physical impairments;
b. is manifested before the person attains age 22, unless the disability is caused by a traumatic head injury and is manifested after age 22;
c. is likely to continue indefinitely;
d. results in substantial functional limitations in three or more of the following areas of major life activity: self-care, receptive and expressive language, capacity for independent living, learning, mobility, self-direction and economic self-sufficiency; and
e. reflects the person's need for a combination and sequence of special interdisciplinary, or generic care, treatment, or other services which are of a lifelong or extended duration and are individually planned and coordinated; or
f. when applied to children from birth through four years of age, may be evidenced as a developmental delay (74).

The NC Council on Developmental Disabilities estimated that as of January, 2011 there were over 167,000 persons in NC with a developmental disability (75).

Although community care is preferred where available, the state currently operates three facilities serving the developmentally disabled: Caswell Developmental Center (Kinston), Murdoch Developmental Center (Butner), and J. Iverson Riddle Developmental Center (Morganton).

Table 192 presents a summary of the persons in each jurisdiction served in NC State Developmental Centers for the period from 2005 through 2010.

- The numbers of persons in the three local jurisdictions served in state developmental centers were small and variable, and demonstrated no definitive pattern.

- At the state level, the number of persons served decreased by 37% between 2005 and 2010. Table 192. Persons Served in NC State Developmental Centers.

(2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Gates County	2	1	0	0	1	1
Regional Average	6	6	1	1	6	6
Jones County	3	3	4	0	3	3
State of NC	2,172	1,690	1,713	1,409	1,404	1,375

Source: NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services, Statistics and Publications, Reports and Publications, Statistical Reports, Developmental Centers (FY2005-FY2010); http://www.ncdhhs.gov/mhddsas/statspublications/reports/index.htm#statisticalreports.

Substance Abuse Service Utilization

Alcohol and Drugs

There are three state-operated residential alcohol and drug abuse treatment centers (ADATC): the Julian F. Keith ADATC (Black Mountain), the R.J. Blackley ADATC (Butner), and the Walter B. Jones ADATC (Greenville).

Table 193 presents a summary of the persons in each jurisdiction served in NC State ADATC for the period from 2005 through 2010.

- The numbers of persons in the three local jurisdictions served in state alcohol and drug abuse treatment centers were small and variable, and demonstrated no definitive pattern.
- At the state level, the number of persons served increased by 20% between 2005 and 2010.

Table 193. Persons Served in NC Alcohol and Drug Abuse Treatment Centers (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Gates County	1	2	4	7	3	3
Regional Average	11	14	9	19	21	13
Jones County	1	0	5	4	7	2
State of NC	3,732	4,003	3,733	4,284	4,812	4,483

Sometimes referred to as "episodes of care", these counts reflect the total number of persons who were active (or the resident population) at the start of the state fiscal year plus the total of first admissions, readmissions, and transfers-in which occurred during the fiscal year at the three state alcohol and drug treatment centers. Excluded are visiting patients and outpatients. Multiple admissions of the same client are counted multiple times. County of residence is reported at the time of admission. North Carolina data include clients reported to reside out-of-state.
Source: Log Into North Carolina (LINC) Database, Topic Group Vital Statistics and Health (Data Item 518); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Table 191, cited previously, presented 2010-2012 ED admissions of Gates County residents at Albemarle Hospital for certain mental and behavioral health diagnoses. Of specific interest here are the numbers of admissions for alcohol- and drug-related diagnoses.

- In the period cited, there were no admissions under ICD-9 Code 291, Alcohol-induced mental disorders, and three total admissions under ICD-9 Code 292, Drug-induced mental disorders.
- There also was one admission under ICD-9 Code 303, Alcohol dependence syndrome, and six total admissions under ICD-9 Code 304, Drug dependency.
- There was one admission under ICD-9 Code 305, Non-dependent abuse of drugs.

Substance Use and Abuse among Youth

Tobacco

While there is no Gates County-specific data on youth tobacco use there is regional data through a youth tobacco survey conducted annually through the NC DPH Tobacco Prevention and Control Branch. Gates County is included among the 37 counties in the Branch's Eastern/Coastal Region (Region 1).

Table 194 presents results of the 2011 NC Youth Tobacco Survey conducted among middle school and high school students in Region 1.

- The data reveal that nearly 20% of current sixth-graders reported having ever used tobacco products, and the "ever" use of smoking products rose by grade.
- Current use of any kind of tobacco products was nearly 5% among sixth-graders and rose by grade throughout middle and high school.
- Higher proportions of middle-school students than high school students reported first using cigarettes before age 11 and the younger the middle school student, the higher the proportion.
- An average of nearly 70% of students overall reported media/advertising influence regarding tobacco, but an average of only 41% overall reported exposure to anti-tobacco education in school in the past year.
- An average of 61% of middle school students who were current smokers reported that they wanted to quit smoking cigarettes; among high school students who were current smokers an average of 43% reported they wanted to quit.

Table 194. North Carolina Youth Tobacco Survey Results, Region 1 (2011)

Topic/Behavior	Percent Response, by Grade						
	6	7	8	9	10	11	12
Ever used tobacco products, any kind	19.6	31.5	35.5	47.4	54.9	51.8	65.3
Currently use tobacco products, any kind	4.8	9.6	14.6	16.3	22.6	27.3	35.0
First used cigarettes before age 11	71.0	34.2	27.8	29.1	19.5	10.4	14.7
Report media/advertising influence regarding tobacco	70.1	70.1	72.6	70.7	68.4	73.6	68.5
Report exposure to anti-tobacco education in school in past year	48.1	48.2	44.5	51.3	40.2	26.8	26.4
Current smokers who want to stop smoking cigarettes	83.5	46.7	53.4	29.8	40.8	48.6	52.3

Source: Detailed Summary Tables-Eastern/Coastal Region (Region 1), NC Youth Tobacco Survey, 2011, Middle School and High School Tables. NC Department of Health and Human Services, Surveillance and Evaluation Team, Tobacco Prevention and Control Branch.

CHAPTER FIVE: ENVIRONMENTAL DATA

AIR QUALITY

Air Quality Index

Nationally, outdoor air quality monitoring is the responsibility of the Environmental Protection Agency (EPA). In NC, the agency responsible for monitoring air quality is the Division of Air Quality (DAQ) in the NC Department of Environment and Natural Resources (NC DENR).

The impact of air pollutants in the environment is described on the basis of emissions, exposure, and health risks. A useful measure that combines these three parameters is the EPA's Air Quality Index (AQI). The EPA monitors and catalogues AQI measurements at the county level, but not in all counties. There is no AQI monitoring station in or near Gates County.

Toxic Releases

Over 4 billion pounds of toxic chemicals are released into the nation's environment each year. The US Toxic Releases Inventory (TRI) program, created in 1986 as part of the Emergency Planning and Community Right to Know Act, is the tool the EPA uses to track these releases. Approximately 20,000 industrial facilities are required to report estimates of their environmental releases and waste generation annually to the TRI program office. These reports do not cover all toxic chemicals, and they omit pollution from motor vehicles and small businesses (76).

According to EPA data, in 2011 there were no facilities in Gates County reporting TRI releases of any kind to any destination (77).

WATER QUALITY

Drinking Water Systems

The EPA is responsible for monitoring the safety of drinking water and water system violations of the federal Safe Drinking Water Act (SDWA). The EPA's Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA's drinking water regulations, as reported to EPA by the states. These regulations establish maximum contaminant levels, treatment techniques, and monitoring and reporting requirements to ensure that water systems provide safe water to their customers (78).

As of July 21, 2012, SDWIS listed only two active water systems in Gates County. Both were municipal *community water systems*; one was the county system, and the other was the system for the Town of Gatesville. Together they served 11,621 people, or 95% of the county population in 2010. A community water system is one that serves at least 15 service connections used by year-round residents or regularly serves 25 year-round residents. This category includes municipalities, subdivisions and mobile home parks.

The EPA records in SDWIS violations of drinking water standards reported to it by states. It records violations as either *health-based* (contaminants exceeding safety standards or water not properly treated) or *monitoring- or reporting-based* (system failed to complete all samples or sample in a timely manner, or had another non-health related violation).

Table 195 lists the active water systems in Gates County as of July 12, 2012. The table also includes any *health-based* violations for the period from 2000 through 2011.

- Both the water systems in Gates County draw their water from underground (groundwater) sources.
- There were no health violations at either system in the period cited.

Table 195. Active Water Systems in Gates County (As of July 12, 2012)

Type of Water System	Total Population Served	Primary Water Source Type	Health Violations 2000-2011
Community Water Systems			
Gates County Water System	11,176	Groundwater	None
Gatesville Water System	445	Purchased groundwater	None
Total	**11,621**		

Source: *Safe Drinking Water Search for the State of North Carolina*. Retrieved on November 6, 2012 from US EPA Envirofacts Safe Drinking Water Information System (SDWIS) website: http://www.epa.gov/enviro/facts/sdwis/search.html.

Municipal Drinking Water System

The Gates County Water Department provides water to approximately 3,700 customers plus the Town of Gatesville.

The Water Department pumps its water from three deep wells located on Water Plant Road which is monitored twenty-four hours a day. Currently the system has three overhead storage

tanks: two contain 250,000 gallons and one contains 400,000 gallons. The system has approximately 400 miles of water main, plus 200 fire hydrants (79).

The On-site Water Protection program of the ARHS/Gates County Health Department's Environmental Health Division assures safe ground water to protect the public from illness caused by unsafe water. On the drinking water side, the agency's responsibility covers only private drinking water wells, not community water systems. Table 196 summarizes ARHS/Gates County Health Department activities related to wells and well testing for 2008 through 2010 as catalogued by the state's Environmental Health Section.

Table 196. Gates County Health Department On-Site Water Protection Activities: Well Water
2008-2010

Activity	2008	2009	2010
Well Sites Evaluated	N/A	N/A	4
Well Site Consultative Visits	N/A	N/A	N/A
Well Construction Permits Issued			
New	N/A	N/A	4
Repair	N/A	N/A	N/A
Bacteriological Samples Collected	N/A	N/A	4
Other Samples Collected	N/A	N/A	4

Note: "N/A" indicates data missing at the source.
Source: NC DHHS, Environmental Health Section, On-Site Water Protection Branch, County Program Reviews and Activity Reports. County Activity Totals, 2008, 2009, 2010; http://ehs.ncpublichealth.com/osww_new/new1/progimprovteam.htm.

Wastewater Systems

Municipalities sometimes operate jurisdiction-wide wastewater treatment systems. According to NC DENR there are no municipal wastewater treatment systems in Gates County (80).

The ARHS/Gates County Health Department's On-site Water Protection program also is responsible for activities associated with subsurface sewage collection, treatment, and disposal, with a focus on private septic systems, not municipal sewage systems. The state's On-Site Water Protection Branch catalogs local health department activities relative to on-site wastewater, but no recent (2008, 2009 or 2010) data was available at that source for Gates County.

NPDES Permits

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into US waters. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

Table 197 lists the NPDES-permitted dischargers in Gates County and the destinations and permitted volumes of their discharges. One of the four permitted dischargers is a commercial enterprise; the other three are small-scale domestic wastewater treatment plants ("package plants") located at county elementary schools.

Table 197. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers, Gates County (November, 2012)

Owner	Facility	Type	Discharge Destination	Permitted Flow (Gal/Day)
Sunbury Fields, LLC	Former Alternative School WWTP	Wastewater Treatment Plant, 100% Domestic, <1MGD	Raynor Swamp (Hunters Millpond)	5,000
Public Schools of Gates County	T.S. Cooper Elementary School WWTP	Wastewater Treatment Plant, 100% Domestic, <1MGD	Raynor Swamp (Hunters Millpond)	4,000
Public Schools of Gates County	Gatesville Elementary School WWTP	Wastewater Treatment Plant, 100% Domestic, <1MGD	Bennetts Creek (Merchants Millpond)	5,000
Public Schools of Gates County	Buckland Elementary School WWTP	Wastewater Treatment Plant, 100% Domestic, <1MGD	Cole Creek (Lilleys Millpond)	6,000

Source: NC Department of Environment and Natural Resources, Division of Water Quality, Surface Water. NPDES Wastewater Permitting and Compliance Program. Permit Info, List of Active Individual Permits as of 11/1/12; http://portal.ncdenr.org/web/wq/swp/ps/npdes/.

SOLID WASTE

Solid Waste Disposal

Table 198 presents figures summarizing tonnage of solid waste disposed in Gates County, the ARHS region, Jones County and NC for the period FY2006-07 through FY2010-11.

- In FY2010-11, Gates County managed 5,177 tons of municipal solid waste (MSW) for a rate of 0.42 tons per capita. This tonnage represented a decrease of 33% from the per capita rate for FY1991-92 (the period customarily used for the base rate).
- During the same FY2010-11 period the overall state per capita solid waste management rate was 8% less than the FY1991-92 base per capita rate.
- The per capita rate in Jones County decreased 1% between the base year and FY2010-11.
- Note that the number of MSW tons disposed decreased from year to year in Gates County, the ARHS region and the state as a whole over the period cited *until* FY2010-11 when the figures began to rise again. In Jones County the increase began one period earlier.

Table 198. Solid Waste Disposal
FY2006-07 through FY2010-11

Location	MSW Tons Managed 1991-1992	MSW Tons Disposed					Base Year Per Capita (1991-1992)	Per Capita Rate 2010-2011	% Change Base Year to 2010-2011
		2006-07	2007-08	2008-09	2009-2010	2010-2011			
Gates County	5,896.70	5968.7	6,790.45	5,535.76	5,473.31	5,177.44	0.63	0.42	-33
Regional Total	90,272.93	132,603.30	129,121.09	117,803.40	112,837.00	116,918.14	n/a	n/a	n/a
Regional Average	12,896.13	18,943.33	18,445.87	16,829.06	16,119.57	16,702.59	0.78	0.77	-1
Jones County	4,360.00	3,788.37	2,884.38	1,644.27	2,189.10	3,193.07	0.47	0.31	-33
State of NC	7,257,428.09	11,837,103.91	11,284,712.33	9,910,030.73	9,395,457.19	9,467,044.71	1.07	0.99	-8

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Program, NC Solid Waste Management Annual Report, Fiscal Years 2008-2009, 2009-2010, 2010-11;
http://wastenot.enr.state.nc.us/swhome/AR08_09/AR08_09.pdf.

Table 199 presents the FY2010-11 County Waste Disposal Report for Gates County.

- All of Gates County's solid waste is transported directly to landfills *outside* the county, either directly or after brief residence at a transfer station.

Table 199. County Waste Disposal Report, Gates County
(FY2010-11)

Location	Facility Name	Facility Type	Tons Received	Tons Transferred
Gates County	East Carolina Regional Landfill	Municipal Solid Waste Landfill	1,285.44	0.00
	Perquimans-Chowan-Gates Transfer Station	Municipal Solid Waste Transfer Station	3,892.00	3,892.00

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2010-2011; County Waste Disposal Report Fiscal Year 2010-2011.
http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-38490.pdf.

Municipal Solid Waste Management

Solid waste management in Gates County is the responsibility of Albemarle Regional Solid Waste Management Authority (ARSWMA), a subsidiary of Albemarle Regional Health Services. ARSWMA is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, and Tyrrell. This area currently 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, LLC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region.

All municipal wastes and most of the construction and demolition debris from the Authority's members are landfilled in the East Carolina Environmental Landfill in Bertie County (owned by Republic Services of NC). The waste is primarily sent there through the three transfer stations located in Dare County, Currituck County, and Perquimans County. However, the towns and counties affiliated with the Authority operate their own solid waste and recycling *collection* programs.

Gates County has four convenience sites to which people may bring solid waste: Roduco, Gates, Hobbsville and Sunbury. These convenience sites accept recyclables, yard waste, scrap metals, appliances, furnishings, household waste, motor oil, oil filters, and antifreeze. Tires are not acceptable and must be returned to the dealer or taken to the Perquimans-Chowan-Gates (PCG) Landfill, located in Belvidere (Perquimans County) (81). Large quantities of waste and all industrial waste must be taken to the PCG Landfill, where charges may apply for some types of materials. In addition, the Sunbury site in Gates County has a swap shop for residents to drop off usable household goods. Residents may pick up a limit of three items per family per week at no charge; items are not for resale.

The Town of Gatesville offers curb-side trash pickup of waste and recyclables for town citizens (82). Town citizens may also use the county convenience sites as needed.

Hazardous Waste Generation

The EPA maintains a database that catalogs generators, transporters, and other handlers of hazardous wastes. The data, located in the Resource Conservation and Recovery Act Information (RCRAInfo) database, is accessed via EPA Envirofacts. Table 200 lists the hazardous waste generator in Gates County. This state-operated facility generates a large quantity of hazardous waste.

Table 200. Hazardous Waste Generators, Gates County (Accessed April, 2013)

Location	Generator Name	Location	Type of Business (NAICS Code/Description)	Type of Generator
Gates County	NC DOT Div 1 Gates Bridge #18	Corapeake	Painting and wall covering contractors	Large Quantity

Source: US EPA, Envirofacts, RCRAInfo, Search; http://www.epa.gov/enviro/facts/rcrainfo/search.html.

LEAD

Lead is a highly toxic natural metal found in the environment in soil, dust, air, and water. Historically it was used for many years in common household products such as paint, batteries, makeup, and ceramics, as an additive to gasoline, and as an ingredient in pesticides. Currently, it is used in lead-acid batteries, fishing weights, marine paint, lead shot, bullets, and in the manufacture of some plastics. Recently, the electronics industry is using more lead in magnetic imaging equipment, transistors, night vision equipment, and energy generation (83).

People can get lead in their body if they put their hands or other objects covered with lead dust in their mouths, ingest paint chips, soil, or water that contains lead, or breathe in lead dust, especially during renovations that disturb painted surfaces. Children are at greatest risk.

The Children's Environmental Health Branch of DENR, via its Lead Poisoning Prevention Program, catalogues data on the results of blood lead level monitoring among children. Table 201 presents blood lead monitoring data for 2006-2010.

The data for Ages 1 and 2 are routine screening results; the data for Ages 6 Months to 6 Years represents children who have been tested because a lead poisoning hazard had been identified in their residential housing unit or their child-occupied facility (e.g., daycare facility). All results at the county level likely are unstable due to small numbers of cases.

Table 201. Blood Lead Assessment Results (2006-2010)

Location	Year	Ages 1 and 2					Ages 6 Months to 6 Years		
		Target Population	No. Tested	% Tested	No. ≥ 10µg/dL	% ≥ 10µg/dL	No. Tested	Confirmed 10-19 µg/dL	Confirmed ≥20 µg/dL
Gates County	2006	240	129	53.8	N/A	N/A	192	N/A	N/A
	2007	262	126	48.1	**2**	**1.6**	184	N/A	N/A
	2008	256	117	45.7	**5**	**4.3**	170	**1**	N/A
	2009	244	117	48.0	**3**	**2.6**	181	N/A	N/A
	2010	220	105	47.7	**1**	**1.0**	154	N/A	N/A
Jones County	2006	191	159	83.2	N/A	N/A	171	N/A	N/A
	2007	205	160	78.0	N/A	N/A	189	N/A	N/A
	2008	202	182	90.1	**1**	**0.5**	216	N/A	N/A
	2009	181	127	70.2	N/A	**0.0**	161	N/A	N/A
	2010	181	162	89.5	N/A	**0.0**	185	N/A	N/A
State of NC	2006	242,813	103,899	42.8	867	0.8	135,595	255	38
	2007	250,686	112,556	44.9	706	0.6	143,972	232	38
	2008	258,532	121,023	46.8	654	0.5	152,222	181	36
	2009	261,644	129,395	49.5	583	0.5	160,713	143	38
	2010	257,543	132,014	51.3	519	0.4	162,060	146	24

Source: NC DHHS, Division of Public Health, Environmental Health Section, Lead Surveillance Data, 2006-2010, Lead Surveillance Tables; http://deh.enr.state.nc.us/Children_Health/Lead/Surveillance_Data_Tables/surveillance_data_tables.html.

FOOD-, WATER-, AND VECTOR-BORNE HAZARDS

Food-, Water-, and Vector-Borne Diseases

A number of human diseases and syndromes are caused or exacerbated by microbial contaminants or by animal vectors in the natural environment. Several of these conditions are among the illnesses that must be reported to health authorities. A number of food-, water-, and vector- borne diseases are of increasing importance because they are either rare but becoming more prevalent, or spreading in geographic range, or becoming more difficult to treat. Among these diseases are Shiga toxin producing *E. coli*, salmonellosis, Lyme disease, West Nile virus infection, Eastern equine encephalitis, and rabies.

The Communicable Disease section of this report would have listed diagnoses of some of these diseases if Gates County residents presented with them at the emergency department of Albemarle Hospital (Table 180).

Table 202 summarizes cases of food-, water-, and vector-borne disease statewide in the period 2009-2012.

- The most common food-, water-, and vector-borne disease statewide is salmonellosis, followed by campylobacter infection and Rocky Mountain spotted fever (spotted fever rickettsiosis).

Table 202. Food-, Water-, and Vector-Borne Diseases, North Carolina (2009-2012)

Disease/Organism	Number of Cases			
	2009	2010	2011	2012[1]
Campylobacter infection	587	851	909	857
Cryptosporidiosis	160	94	115	88
E. Coli O157:H7 (or other STEC)	112	97	155	79
Ehrlichiosis	31	130	96	99
Encephalitis California Group (Lacrosse)	169	22	24	18
Hepatitis A	41	48	30	20
Listeriosis	27	22	21	9
Lyme Disease	252	89	75	71
Rocky Mountain Spotted Fever	325	292	305	431
Salmonellosis	1,806	2,352	2,516	1,612
Shigellosis	358	253	225	104

[1] 2012 data includes January-September 2012 only
Source: NC DHHS, Epidemiology Branch, Communicable Disease Section, Facts and Figures, NC Communicable Disease Reports, 2009, 2010, 2011, 2012; http://epi.publichealth.nc.gov/cd/figures.html.

Vector Control

Bacterial, viral and parasitic diseases that are transmitted by mosquitoes, ticks and fleas are collectively called *vector-borne diseases* (the insects and arthropods are the *vectors* that carry the diseases). Although the term vector can also apply to other carriers of disease—such as mammals that can transmit rabies or rodents that can transmit hantavirus—those diseases are generally called *zoonotic* (animal-borne) diseases.

The most common vector-borne diseases found in North Carolina are carried by ticks and mosquitoes. The tick-borne illnesses most often seen in the state are Rocky Mountain Spotted Fever, ehrlichiosis, Lyme disease and Southern Tick-Associated Rash Illness (STARI). The most frequent mosquito-borne illnesses, or "arboviruses," in North Carolina include LaCrosse encephalitis, West Nile virus and Eastern equine encephalitis (84).

One way to prevent or limit the transmission of vector-borne illnesses is to control the vectors of the disease. In the case of mosquitoes, that is usually accomplished by improving cultural practices (e.g., emptying temporary water reservoirs like puddles, flowerpots and bird feeders or by people covering their skin or applying insect repellent when outdoors). In extreme cases, communities may sometimes resort to large-scale aerial spraying to destroy the insect or interfere with its reproductive cycle. Spraying initiatives can be controversial, however, since the typically broadcast application of the pesticide is non-selective and can affect humans and pets.

Rabies, a vector-borne disease, can be controlled among pets by having dogs and cats properly vaccinated. While pets can be protected that way, there is no practical way to control rabies in the wild, where it actually is more common. Table 203 lists the total number of rabies cases detected in the seven counties of the ARHS region over the period from 2005-2012. First of all, rabies is not common in the region, with only 40 cases identified region-wide in eight years. For comparison, there were 28 cases in Guilford County in 2012 alone. Secondly, rabies is more common in animals other than cats, dogs or bats. Of the 40 total rabies cases in the region between 2005 and 2012, the most common host was raccoons (21 cases); six cases were in cats and one was in a dog. Statewide in 2012 48% of all rabies cases were in raccoons.

Table 203. Animal Rabies Cases, ARHS Counties (2005-2012)

Location	Total Number of Animal Rabies Cases							
	2005	2006	2007	2008	2009	2010	2011	2012
Bertie County	0	0	0	0	2	1	0	1
Camden County	0	0	1	0	0	0	0	0
Chowan County	0	0	0	0	1	3	0	0
Currituck County	0	0	1	2	1	0	0	0
Gates County	1	2	0	2	0	0	0	1
Pasquotank County	1	0	1	2	5	3	0	0
Perquimans County	1	3	0	1	1	3	0	0
Regional Total	*3*	*5*	*3*	*7*	*10*	*10*	*0*	*2*

Source: NC Division of Public Health, Epidemiology. Rabies. Facts and Figures. Rabies by County, Tables by Year. http://epi.publichealth.nc.gov/cd/rabies/figures.html.

Animal Control in Gates County

The Gates County Sheriff's Department is responsible for all animal control complaints in the county, and operates 9:00 am to 5:00 pm Monday through Friday. Officers can be reached at other times via the county's emergency 911 communications system (85).

Animal Shelters in Gates County

The Tri-County Animal Shelter, serving Chowan, Gates and Perquimans counties, is located in Tyner. The shelter is open for adoptions Monday through Friday from 1-5 PM, and Saturdays from 10 AM to 1 PM. All adoption fees are $50 (86).

BUILT ENVIRONMENT

The term *built environment* refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighborhoods and cities. As often used the term also includes supporting infrastructure for those settings, such as the water supply, or the energy grid. In recent years, public health research has expanded the definition of built environment to include healthy food access, community gardens, recreational facilities, and the ease of getting around on foot or on bicycle.

Access to Grocery Stores and Farmers' Markets

Table 204 presents data on the availability of grocery stores.

- The number of grocery stores in Gates County grew from zero to two between 2007 and 2009.
- Approximately 183 Gates County households (~4%) had no car and therefore low access to grocery stores.

Table 204. Availability of Grocery Stores, ARHS Region (2007 and 2009; 2010)

Location	Grocery Stores						2010			
	2007		2009		% Change (2007-2009)		Households with no car and low access		Low Income & Low Access	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population	#	%	#	%
Bertie County	9	0.470	6	0.320	-33.33	-32.93	743	8.89	1,010	4.75
Camden County	1	0.110	1	0.110	0.00	-3.11	48	1.32	98	0.99
Chowan County	5	0.340	5	0.340	0.00	-0.31	274	4.52	1,093	7.40
Currituck County	9	0.380	9	0.380	0.00	-1.43	186	2.10	649	2.76
Gates County	0	0.000	2	0.170	null	0.00	183	3.92	2	0.02
Pasquotank County	12	0.300	8	0.200	-33.33	-34.54	667	4.46	3,707	9.12
Perquimans County	3	0.250	2	0.160	-33.33	-34.84	249	4.44	72	0.54
Regional Total	39	n/a	33	n/a	n/a	n/a	2,349	n/a	6,632	n/a
Regional Average	6	n/a	5	n/a	n/a	n/a	336	n/a	947	n/a

Source: *Grocery Stores.* U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: http://ers.usda.gov/FoodAtlas/.

Table 205 presents data on the availability of farmers' markets.

- Despite the rural, agrarian nature of much of the ARHS region, there are very few farmers' markets anywhere in the region: two in 2009 and three in 2012 (none of which was in Gates County).

Table 205. Availability of Farmers' Markets, ARHS Region (2009 and 2012)

Location	Farmers' Markets					
	2009		2012		% Change (2009-2012)	
	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population	# Markets	# Markets per 1,000 Population
Bertie County	0	0.000	0	0.000	0.0	0.0
Camden County	0	0.000	0	0.000	0.0	0.0
Chowan County	1	0.070	2	0.140	1.0	99.98
Currituck County	0	0.000	0	0.000	0.0	0.0
Gates County	0	0.000	0	0.000	0.0	0.0
Pasquotank County	1	0.030	1	0.030	0.0	2.17
Perquimans County	0	0.000	0	0.000	0.0	0.0
Regional Total	2	n/a	3	n/a	1.0	n/a

Source: *Farmers' Markets.* U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: http://ers.usda.gov/FoodAtlas/.

Access to Fast Food Restaurants

Table 206 presents data on the availability of fast food restaurants.

- There was an average of 11 fast food restaurants in each county of the ARHS region in both 2007 and 2009.
- Gates County had one fast food restaurant in 2007 and 2009.

Table 206. Availability of Fast Food Restaurants, ARHS Region (2007 and 2009)

Location	Fast Food Restaurants					
	2007		2009		% Change (2007-2009)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Bertie County	6	0.310	7	0.370	16.7	17.4
Camden County	2	0.220	3	0.310	50.0	45.3
Chowan County	10	0.680	11	0.750	10.0	9.7
Currituck County	24	1.010	22	0.910	-8.3	-9.6
Gates County	1	0.090	1	0.090	0.0	-0.3
Pasquotank County	31	0.760	27	0.650	-12.9	-14.5
Perquimans County	3	0.250	3	0.240	0.0	-2.3
Regional Total	77	n/a	74	n/a	n/a	n/a
Regional Average	11	n/a	11	n/a	n/a	n/a

Source: *Fast Food Restaurants.* U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: http://ers.usda.gov/FoodAtlas/.

Access to Recreational Facilities

Table 207 presents data on the availability of recreational and fitness facilities.

- There were no recreation and fitness facilities in Gates County in 2007 or 2009. A more recent listing of recreational facilities was provided earlier in this document.

Table 207. Availability of Recreation and Fitness Facilities, ARHS Region (2007 and 2009)

Location	Recreation and Fitness Facilities					
	2007		2009		% Change (2007-2009)	
	#	# per 1,000 Population	#	# per 1,000 Population	#	# per 1,000 Population
Bertie County	2	0.110	1	0.060	-50	-49.7
Camden County	0	0.000	0	0.000	0	0.0
Chowan County	1	0.070	1	0.070	0	-0.3
Currituck County	3	0	2	0	-33	-34.3
Gates County	0	0.000	0	0.000	0	0.0
Pasquotank County	2	0.050	5	0.130	150.0	145.5
Perquimans County	1	0.090	1	0.080	0.0	-2.3
Regional Total	9	n/a	10	n/a	n/a	n/a

Source: *Physical Activity Levels and Outlets.* U.S. Department of Agriculture Economic Research Service, Your Food Environment Atlas website: http://ers.usda.gov/FoodAtlas

CHAPTER SIX: COMMUNITY INPUT

COMMUNITY HEALTH 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 includes seven counties and estimates need 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 toolbox in the ESRI ArcMap GIS software called the Community Assessment for Public Health Emergency Response (CASPER) Toolkit, developed by the CDC. The sample selected included four households in each of 20 census blocks in each of seven counties, for a total of 560 surveys. Sampling was conducted with replacement so blocks had the chance of being selected twice. In these instances, eight households per block were selected for interviews instead of four.

To complete data collection in the field, survey teams generally consisted of two persons: one to read the survey questions and one to enter the responses into a handheld computer for data entry and analysis with Epi Info 7 software. Training sessions on data collection and navigation using handheld GPS were provided for survey teams on; October 16, 2012 in Pasquotank County, October 29, 2012 in Gates County, November 1, 2012 in Currituck County, November 7, 2012 in Perquimans County, November 8, 2012 in Chowan County, and November 12, 2012 in Bertie County. For the seven county region, surveys were conducted from October 16, 2012 through February 2013.

Survey teams were comprised of health department and hospital staff, as well as 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, as well as some Saturdays. 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.

Survey responses were analyzed using Epi Info 7 software developed by the CDC. Complex sampling frequencies, tables, and means procedures were used to generate weighted frequencies and their corresponding 95% confidence intervals. The survey weights, based on census block population size, were implemented to account for the 2-stage cluster sampling methodology used in selecting households for interview. A total of 560 surveys were analyzed.

The survey instrument and results are provided in the Appendix to this document. Spanish surveys were available for the Hispanic population. An instruction card in Spanish was handed to any Spanish speaking resident explaining the survey and that an interpreter would be available to conduct the survey via phone if preferred. An area on the instruction card was provided for the resident to write their name and phone number.

STAKEHOLDER SURVEY OVERVIEW

The 2013 ARHS Community Health Needs Assessment process also included gathering input from formal and informal leaders of the community in order to learn from them about the needs of the individuals they serve and to better understand the health status of the region's communities as a whole.

A description of the methodology used to collect leaders' opinions, as well as a summary of the stakeholder survey results, are presented in the Appendix to this document.

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ALBEMARLE REGIONAL HEALTH SERVICES
Partners in Public Health

Gates County

Hello, I am _____ and this is _____ representing the Gates County Health Department. (Show badges.) You are being asked to participate in a health survey for our county because your address was randomly selected. The purpose of this survey is to learn more about the health and quality of life in Gates County, North Carolina. The Gates County Health Department, Gates Partners for Health and Albemarle Health will use the results of this survey to help develop plans for addressing the major health and community issues in Gates County. All the information you give us will be completely confidential and will not be linked to you in any way.

The survey is completely voluntary. All of your answers are confidential. It should take no longer than 30 minutes to complete. If you don't live here at this house, please tell me now.

Would you be willing to participate?

If they want to confirm this survey is legitimate, please ask them to call the Health Department:

- *Gates Health Dept. → 252-357-1380*

Additionally, the numbers for the local law enforcement are provided here:

- *Gates County Sheriff's Office → 252-357-0210*

The purpose of this survey is to learn more about health and quality of life in the Albemarle Region of North Carolina. The local health departments of Albemarle Regional Health Services, Albemarle Health, Vidant Bertie Hospital, Vidant Chowan Hospital, 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. Thank you for taking the time to complete this Community Health Survey. **If you have already completed this survey, or if you don't live in Gates County, please STOP here.**

Your answers on this survey will not be linked to you in any way.

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. Handheld will have a refused to answer/no response option for all questions in the survey.

Quality of Life Statements	Strongly Disagree	Disagree	Agree	Strongly Agree
Question 1 **There is a good health care system in Gates County.** (Think about health care options, access, cost, availability, quality, etc.)	**10.2%**	**27.1%**	**51.1%**	**2.9%**
Question 2 **Gates County is a good place to raise children.** (Think about the availability and quality of schools, child care, after school programs, places to play, etc.)	**1.8%**	**7.8%**	**46.7%**	**43.3%**
Question 3 **Gates County is a good place to grow old.** (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.)	**1.7%**	**13.0%**	**49.0%**	**34.7%**
Question 4 **There are plenty of ways to earn a living in Gates County.** (Think about job options and quality of jobs, job training/higher education opportunities, etc.)	**36.9%**	**55.0%**	**7.7%**	**0.3%**
Question 5 **Gates County is a safe place to live.** (Think about safety at home, in the workplace, in schools, at playgrounds, parks, shopping centers, etc.)	**0.0%**	**2.2%**	**75.3%**	**22.5%**
Question 6 **There is plenty of support for individuals and families during times of stress and need in Gates County.** (Examples include neighbors, support groups, faith community outreach, agencies, organizations, etc.)	**8.4%**	**25.2%**	**46.8%**	**16.3%**
Question 7 **Gates County has clean air.**	**1.5%**	**1.0%**	**75.6%**	**21.3%**
Question 8 **Gates County has clean water.**	**1.3%**	**16.0%**	**67.4%**	**15.3%**

PART 2: County 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.

SHOW QUESTION PICK LIST

Question 9

This next question is about health problems that have the largest impact on the community as a whole. (Problems that you think have the greatest overall effect on health in the community.) Please look at this list of health problems and choose 5 of the most important health problems in Gates County. Remember this is your opinion and your choices will not be linked to you in any way. If you do not see a health problem you consider one of the most important, please let me know and I will add it in. I can also read these out loud as you think about them. Top three responses bolded (includes a tie):

a. Obesity/Overweight
b. Infant Death
c. Asthma
d. Cancer
e. Diabetes
f. Heart Disease
g. Stroke
h. Alzheimer'
i. Motor Vehicle Accidents
j. Tobacco Use
k. Child Care/Parenting
l. Elder Care
m. Aging Problems (vision/hearing loss, arthritis, etc.)
n. Caring for Family Members with Special Needs/ Disabilities
o. Teen Pregnancy and Sexually Transmitted Diseases, including HIV/AIDS
p. Infectious/Contagious Diseases (TB, pneumonia, etc.)
q. Substance Abuse (ex: drugs and alcohol)
r. Suicide
s. Mental Health (depression, anxiety, mood disorders)
t. Domestic Violence
u. Crime
v. Rape/ Sexual Abuse
w. Gun Related Injuries
x. Other:_____
y. None

Question 10

This next question is about unhealthy behaviors that some individuals do that have the largest impact on the community as a whole. (Unhealthy behaviors that you think have the greatest overall effect on health and safety in the community.) Please look at this list of unhealthy behaviors and choose 5 of the unhealthiest behaviors among Gates County residents. Remember this is your opinion and your choices will not be linked to you in any way. If you do not see an unhealthy behavior that you consider one of the most important, please let me know and I will add it in. I can also read these out loud as you think about them. Top three responses bolded:

a. Poor eating habits
b. Lack of Exercise
c. Going to a dentist for check-ups
d. Going to the doctor for yearly check-ups and screenings
e. Taking prescription medications
f. Receiving Prenatal Care
g. Getting flu shots and other vaccines
h. Preparing for an emergency/disaster
i. Using child safety seats
j. Using seat belts
k. Driving Safely
l. Driving Under the Influence
m. Smoking
n. Breathing Secondhand Smoke
o. Child care/ parenting
p. Having unsafe sex
q. Substance Abuse (ex: drugs and alcohol)
r. Suicide
s. Mental Health (depression, anxiety, mood disorders)
t. Domestic Violence
u. Crime
v. Rape/ Sexual Abuse
w. Gun Related Injuries
x. Other: _____
y. None

Question 11

Using this list, choose the <u>five</u> (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.) Remember this is your opinion and your choices will not be linked to you in any way. If you do not see an unhealthy behavior that you consider one of the most important, please let me know and I will add it in. I can also read these out loud as you think about them. Top three responses bolded:

a. Access to prescription drugs
b. Disaster preparedness/bioterrorism
c. Homelessness
d. Inadequate/unaffordable housing
e. Lack of affordable health insurance/health care
f. Lack of education/dropping out of school
g. Lack of healthy food choices
h. Lack of mental health services
i. Lack of services for people with cultural or language differences
j. Lack of recreational facilities
k. Lack of health care providers
l. Lack of transportation options
m. Neglect and abuse (of a child, a spouse, the elderly, etc.)
n. Pollution (air, water, land)
o. Poverty
p. Racism
q. Underemployment/lack of well-paying jobs
r. Violent crime (rape, murder, assault, etc.)
s. Other: _____
t. None:

PART 3: Community Service Problems and Issues

Question 12

This next question is about community-wide issues that have the largest impact on the overall quality of life in Gates County. Please look at this list and choose 5 of the following services needing the most improvement in your neighborhood or county. Remember this is your opinion and your choices will not be linked to you in any way. If there is a service that you think needs improvement that is not on this list, please let me know and I will write it in. If you would like, I can read these out loud as you think about them. Top three responses bolded (includes a tie):

a. **Animal control**
b. **Availability of child care**
c. **Availability of elder care**
d. Services for disabled people
e. More affordable health services
f. Inadequate/unaffordable housing
g. Lack of health care providers
   What kind? _____
h. Culturally appropriate health services
i. Counseling/ mental health/ support groups
j. Availability of healthy food choices
k. Lack of/inadequate health insurance
l. Availability of recreational facilities (parks, trails, community centers)
m. Availability of healthy family activities
n. Availability of positive teen activities
o. Transportation options
p. **Availability of employment**
q. Higher paying employment
r. Un-safe, un-maintained roads
s. Other: _____
t. None

PART 4: Personal Health

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

Question 13

How would you rate your own personal health? Mean: **<u>Very Good</u>**

___ Excellent ___ Very Good ___ Good ___ Fair ___ Poor

Question 14

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

<u>37.1%</u> Health insurance *my* employer provides
<u>19.1%</u> Health insurance *my spouse's* employer provides
<u>0.7%</u> Health insurance *my school* provides
<u>0.7%</u> Health insurance *my parent or my parent's* employer provides
<u>10.3%</u> Health insurance I bought for myself
<u>11.2%</u> Medicaid
<u>32.8%</u> Medicare
<u>7.2%</u> Veteran's Administration benefits

5.7% Other: _____
8.3% 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?

15.9% Yes **81.6%** No

Question 16

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

82.3% Doctor's office	5.1% Company nurse
0.7% Health department	5.2% Community or Rural Health Center
3.2% Hospital clinic	13.9% Urgent Care Center
24.5% Hospital emergency room	7.9% Other: _____
0% Student Health Services	0.6% Cardiologist/Heart Specialist
2.8% Veterans Related	0.7% None/Don't go

Question 17

In what cities are the medical providers you visit located?
(Choose all answers that apply.)

25.7% Ahoskie	4.1% Franklin	**47.4%** Suffolk	0.9% Portsmouth
13.6% Chesapeake	39.0% Gatesville	3.3% Virginia Beach	0.3% Roanoke Rapids
0% Dare County	6.8% Greenville	0% Williamston	0.3% Tyner
6.3% Edenton	0.4% Hertford	0% Windsor	2.6% Virginia Hospital
24.8% Elizabeth City	9.3% Norfolk	8.5% Other: _____	
2.5% Hampton	0.8% None		

Question 18

Where do you usually get advice on your health?
(Choose all answers that apply.)

92.4% Doctor's office	9.4% Urgent Care Center
2.3% Health department	12.1% Family
1.8% Hospital clinic	9.1% Friends
15.6% Hospital emergency room	11.1% Media (television, news, radio, magazine)
0% Student Health Services	18.3% Internet or other computer-based info
2.6% Company nurse	2.4% Other: _____
0.3% Community or Rural Health Center	0.7% Books
0.5% Self	2.5% No Response

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.***

84.6% Within the past 12 months
1.3% 1-2 years ago
7.2% 3-5 years ago
2.3% More than 5 years ago
0.7% I have never had a routine or "well" medical checkup
0.7% Don't Know
3.0% No Response

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.***

67.3% Within the past 12 months
14.7% 1-2 years ago
7.7% 3-5 years ago
10.0% More than 5 years ago
0% 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?
(Choose only one answer.)

1.0% Children's Developmental Services Agency/Developmental Evaluation Center
16.1% Counselor or Therapist in private practice
24.2% Doctor
2.1% Emergency Room
0.6% Employee Assistance Program
25.3% Local Mental Health Facility
6.8% Minister/Pastor
1.1% School Counselor
0% Vocational Rehabilitation/Independent Living
12.5% I don't know
7.3% Other: _____
3.1% No Response

Question 22

How would you rate your day-to-day level of stress?

7.5% High 37.7% Moderate **50.3%** 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?

9.2% Always 6.4% Usually 20.1% Sometimes 28.6% Rarely **34.3%** Never

Question 24

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

9.2% Number of days
21.6% I didn't drink alcohol on any of the past 7 days
59.2% 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?

3.6% 2 days
3.0% 3 days
1.5% 4 days
0.6% 7 days
1.4% No Response

Question 26

Do you smoke cigarettes?

16.5% Yes
58.1% I have never smoked cigarettes
18.3% I used to smoke but have quit
7.1% No Response

Question 27

How many cigarettes do you smoke per day?
(Choose only one answer.)

9.2% Less than half a pack per day
5.0% Between half a pack and one (1) pack per day
2.4% More than one (1) pack a day How many packs? _____
0.6% 1 pack
1.8% 2 packs

Question 28

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

16.8%Yes **80.0%** No 3.2% No Response

Question 29

If you answered yes to Q 28, where are you regularly exposed to secondhand smoke?
(Choose all answers that apply.)

3.9% Public Places 4.1% Home **7.8%** Workplaces 5.0% Car 0% Hospital
0% School (public, community college, university) 0.7% Other: _____
0.7% Community

Question 30

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

88.9% Not at all 5.1% On some days 0.3% Every day 5.7% No Response

Question 31

Are you in support of establishing all county property including public parks and recreational facilities as smoke free?

87.7% Yes 10.2% No 2.0% Don't know

Question 32

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?

22.6% None
12.1% Less than once a week
6.2% Once a week
36.7% 2-3 times a week
11.0% 4-6 times a week
11.4% Daily

Question 33

If you answered "none" to Q 31, why don't you engage in physical activity?
(Choose all answers that apply.)

3.0% My job is physical or hard labor
3.6% I don't have enough time for physical activity
2.0% I'm too tired for physical activity
10.8% I have a health condition that limits my physical activity
1.4% I don't have a place to exercise
0% Weather limits my physical activity
0% Physical activity costs too much (equipment, shoes, gym expense)
0% Physical activity is not important to me
0.9% Other: _____

Question 34

Which of the following physical activity resources would you utilize?
(Choose all answers that apply.)

23.9% Park/Playground
22.1% School
31.8% Church
43.6% Community Center
23.2% Senior Center
28.2% Parks & Recreation Facility
26.5% Gyms
42.6% Walking Trail
30.5% Nature Trail
15.2% Bike Trail
12.5% Canoeing
16.5% Kayaking
32.6% Walkable Communities – i.e. areas measured, deemed safe to walk, etc.
3.3% No Response

Question 35

Do you know of any schools that allow the public to use their recreational facilities after hours?

47.9% Yes **49.7%** No 2.0% No Response

Question 36

How often do you visit county parks and recreation facilities?

0% Daily
5.8% Weekly
7.8% Monthly
29.5% Occasionally
23.1% Rarely
33.3% Never
0.5% No Response

Question 37

What are the top reasons you do not visit or do not visit regularly?
(Choose all answers that apply.)

1.2% No lighting
2.5% No bathrooms
1.4% Unclean
1.0% Unsafe
1.4% No drinking fountains
5.1% Not handicap accessible
2.0% Lack of shade
3.2% Lack of children's play equipment
0.7% Lack of fields or courts for sports
0.7% Lack of walking paths/tracks

0.7% Lack of biking paths
5.9% Lack of trashcans/pet waste disposal
2.5% Lack of transportation
2.9% Cost
24.2% Nothing offered of interest to me
35.5% Other: _____
13.4% No Response

Question 38

Not counting juice, how many servings of fruit do you consume in an average day?

0.0% None
35.8% 1 serving
39.1% 2 servings
16.9% 3 servings
5.3% 4 servings
0.3% 5 servings
0.8% Don't know
1.1% No Response

Question 39

Not counting potatoes and salad, how many servings of vegetables do you consume in an average day?

0.7% None
36.3% 1 serving
45.3% 2 servings
12.3% 3 servings
4.9% 4 servings
0.5% No Response

Question 40

Are you within 10 miles of a grocery store, convenience store, or dollar store?

95.3% Yes 4.3% No 0.5% No Response

Question 41

Are fresh fruits and vegetables readily available at these stores?

85.0% Yes 7.8% No 2.5% No Response

Question 42

Are you within ten miles of a farmers market or roadside, produce stand?

73.2% Yes 21.1% No 5.7% Don't know

Question 43

If yes, during the months open how often do you visits?

1.5% Daily
15.9% Weekly
4.0% Monthly
26.6% Occasionally
9.3% Rarely

12.2% Never
1.1% No Response

Question44

What are the primary reasons you do not visit or do not visit regularly?
(Choose all answers that apply.)

2.5% Lack of transportation
2.5% Too expensive
0.7% I do not eat fruits and vegetables
3.8% I do not know the locations and hours of operation
10.9% I am working during hours of operation
1.8% Does not accept EBT or WIC
14.4% I have my own garden
20.3% Other: _____
5.2% No Response
1.3% Lack of willpower
0.3% Lazy

Question 45

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

Mean: **1.3** Meals eaten out each week

Question 46

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

Asthma	14.3% Yes	**85.7%** No
Depression	12.7% Yes	**87.3%** No
Diabetes	19.7% Yes	**80.3%** No
High blood pressure	**67.1%** Yes	32.9% No
High cholesterol	31.6% Yes	**68.5%** No
Mental Illness	3.5% Yes	**96.5%** No
Overweight/obesity	35.0% Yes	**65.0%** No
Heart Disease	20.1% Yes	**79.9%** No
Cancer	5.9% Yes	**94.1%** No

Question 47

What year were you born? Mean Age: **57.0**

Age Groups:

0.0% <=18	**34.6%** >58-68
6.7% >18-28	10.2% >68-78
5.1% >28-38	7.5% >78-88
16.3% >38-48	0.3% >88-98
19.2% >48-58	

Question 48
Are you male or female? 34.6% Male **65.4%** Female

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 59. If you are a woman, skip to question 52.)*

Question 49
Do you get an annual prostate exam?

22.8% Yes 7.8% No

Question 50
If you answered no to Q 49, what was the main reason you did not get an annual prostate exam? *(Choose only one answer.)*

0% Lack of Information (Didn't know about/Couldn't locate information about it)
0% Cost (Too expensive or provider wouldn't accept my insurance)
0% Service Not Available (It took too long to get an appointment; you didn't meet the eligibility requirements; provider wasn't taking new patients or enrollees; had inconvenient location or hours of operation)
0% Language or Cultural Barrier (This service was not sensitive to my language or cultural needs)
0% Lack of Transportation (Don't have access to an automobile or public transportation; don't know anyone who could give me a ride.)
0% Instructed by a health professional that an annual prostate exam was not necessary
5.8% Other reason

Question 51
How long has it been since your last prostate exam?

17.9% Within the past 12 months
4.5% 1-2 years ago
5.2% 3-5 years ago
0% More than 5 years ago
0% I don't know/don't remember
2.7% I have never had a prostate exam
0.7% No response

WOMEN'S HEALTH QUESTIONS. Answer the following four (4) questions only if you are a woman.

Question 52
If you are age 40 or older, do you get a mammogram annually?

42.9% Yes 13.8% No 1.8% Under age 40 3.2% No response

Question 53

If you answered no to Q 52, what was the main reason you did not get an annual mammogram?
(Choose only one answer.)

0% Lack of Information (Didn't know about/Couldn't locate information about it)
0% Cost (Too expensive or provider wouldn't accept my insurance)
0% Service Not Available (It took too long to get an appointment; you didn't meet the eligibility requirements; provider wasn't taking new patients or enrollees; had inconvenient location or hours of operation)
0% Language or Cultural Barrier (This service was not sensitive to my language or cultural needs)
0% Lack of Transportation (I don't have access to an automobile or public transportation; I don't know anyone who could give me a ride.)
8.1% Instructed by a health professional that an annual mammogram was not necessary
1.1% Other reason
1.7% Don't know
2.5% No Response

Question 54

How long has it been since your last mammogram?

36.0% Within the past 12 months
6.8% 1-2 years ago
3.1% 3-5 years ago
3.3% More than 5 years ago
0.3% I don't know/don't remember
2.5% I have never had a mammogram

Question 55

Do you get a Pap test at least every 1-3 years? 15.4% Yes **50.1%** No

Question 56

If you answered no to Q 55, why don't you get a pap test at least every 1-3 years?
(Choose only one answer.)

4.9% Lack of Information (Didn't know about/Couldn't locate information about it)
0% Cost (Too expensive or provider wouldn't accept my insurance)
0.3% Service Not Available (It took too long to get an appointment; you didn't meet the eligibility requirements; provider wasn't taking new patients or enrollees; had inconvenient location or hours of operation)
0% Language or Cultural Barrier (This service was not sensitive to my language or cultural needs)
0% Lack of Transportation (I don't have access to an automobile or public transportation; I don't know anyone who could give me a ride.)
8.8% Instructed by a health professional that a pap test every 1-3 years was not necessary
0.7% Other reason

Question 57

How long has it been since your last Pap test?

40.0% Within the past 12 months
9.4% 1-2 years ago
9.9% 3-5 years ago
2.8% More than 5 years ago
0.7% I don't know/don't remember
1.9% I have never had a pap test

Question 58

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?

60.0% Yes 9.6% No 5.7% Under age 50 2.5% No Response

PART 5: Adolescent Behavior (ages 9-17)

Question 59

Do you have children between the ages of 9 and 17 for which you are the caretaker? (Includes step-children, grandchildren, or other relatives.)

18.8% Yes **78.1%** No 3.1% No Response

Question 60

Which of the following health topics do you think your child (ren) needs more information about? *(Read list. Allow time for a yes or no following each item. Choose all answers that apply.)*

9.5% Nutrition
6.0% Physical Activity
2.5% Sex
1.6% Tobacco
3.0% Asthma Mgmt
3.5% Diabetes Mgmt
9.1% Overweight/Obesity
5.6% First Aid/CPR
0.3% Career Planning/Job Skills
1.2% Gang violence
0.6% Reckless driving/speeding
0.3% Eating disorder (e.g. anorexia or bulimia)
3.1% Mental Health issues (depression, anxiety)
0% Suicide Prevention
4.9% Substance Abuse (alcohol/drugs)
3.7% STDs including HIV
0.3% Other: _____
0% My child does not need information on any of the above topics

PART 6: Emergency Preparedness

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

Question 61

Does your household have working smoke and carbon monoxide detectors?
(Choose only one answer.)

54.3% Yes, smoke detectors only
8.2% Yes, carbon monoxide detectors only
25.8% Yes, both
11.0% No
0.7% Refused

Question 62

Does your household have a Family Emergency Plan?

66.8% Yes 30.0% No 3.3% No Response

Question 63

Are there members of your family with special needs (homebound, bedridden, handicapped, etc.) who will need additional assistance in the event of an emergency, large-scale disaster, or evacuation?

7.5% Yes **90.0%** No 2.5% No Response

Question 64

Does your household have a basic emergency supply kit? If yes, how many days do you have a supply for? These kits can include; water and non-perishable food, any necessary prescriptions, battery powered or hand crank weather radio, first aid supplies, flashlight, and batteries, etc.

32.0% No
18.6% 3 days
35.4% 1 Week
6.1% 2 weeks
7.5% More than 2 weeks
0.3% Don't know

Question 65

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

42.6% Television
13.9% Radio
7.4% Internet
0% Print media (ex: newspaper)
13.2% Social networking site (i.e. Facebook)
5.4% Neighbors
16.7% County Reverse 911/Emergency Alert Phone System
0% Text message (emergency alert system)
0.6% Other: _____
0.6% Family
0% Don't know
0 % No Response

Question 66

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

87.4% Yes 0.6% No 12.0% Don't know 0% No Response

Question 67

What would be the main reason you might not evacuate if asked to do so?
(Choose only one answer.)

7.3% Lack of transportation
1.8% Lack of trust in public officials
12.2% Concern about leaving property behind
8.1% Concern about personal safety
5.0% Concern about family safety
8.8% Concern about leaving pets
2.8% Concern about traffic jams and inability to get out
4.0% Can't afford to evacuate (gas, hotel stay, eating out)
5.5% Other: _____
37.4% Don't know
5.5% No Response

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 68

Do you work or go to school outside of Gates County? 29.6% Yes **65.8%** No

Question 69

What is your race or ethnicity? *(Choose only one answer.)*

58.2% African American/Black	35.1% Caucasian/White	
0% Asian/Pacific Islander	0.7% Native American	
1.3% Hispanic/Latino	0% Other: _____	4.6% No Response

Question 70

What is your marital status?

56.7% Married	2.4% Separated	10.2% Never married
23.0% Widowed	4.6% Divorced	0.3% Other: _____
2.8% No Response		

Question 71

What is the highest education level you have completed? *(Choose only one answer.)*

4.0% Less than 9th grade
12.2% 9th-12th grade, no diploma

31.0% High school graduate (or GED/equivalent)
16.0% Associate's Degree or Vocational Training
16.6% Some college (no degree)
15.2% Bachelor's degree
1.1% Graduate or professional degree
0.5% Other: _____
2.8% No Response

Question 72

What is your employment status? *(Choose all answers that apply.)*

25.4% Employed full-time
5.0% Employed part-time
12.3% Unemployed
38.4% Retired
17.4% Disabled; unable to work
1.7% Student
0.3% Homemaker
2.8% No Response

Question 73

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*.)

18.3% Less than $20,000
14.2% $20,000 to $29,999
12.6% $30,000 to $49,999
14.0% $50,000 to $74,999
11.4% $75,000 to $100,000
0.6% Over $100,000
26.4% No Response
2.4% Don't know

Question 74

How many individuals live in your household? Mean: 2.6

Question 75

Do you have access to the internet?

75.2% Yes 19.2% No 0% No Response
0% Don't know/not sure

THE END!

Thank you very much for completing the Community Health Survey!

Gates County Stakeholder Survey Results

Conducting stakeholder surveys is an important part of the Community Health Assessment (CHA) process and ensures that we engage formal and informal leaders of the community in learning and understanding the needs of individuals, as well as the health status of our communities as a whole. Stakeholder surveys were included in our 2013 CHA process in addition to the Community Health Opinion surveys. This process helps identify and evaluate health issues in each respective county.

Stakeholder surveys were referred to as key informant interviews in our 2010 CHAs. The CHA Leadership Team decided to conduct these surveys via Survey Monkey as opposed to conducting a phone interview as used in the 2010 process in hopes to increase participation. Self-administered surveys can be completed at the convenience of the respondent, and provides anonymity that allows people to be honest without fear of judgment.

Stakeholders were identified by members of our Healthy Carolinians Partnerships and CHA Leadership Team. Potential participant representation included agencies and organizations in key sectors of the community such as; local health and human services, business, education, law enforcement, local hospitals, civic groups including churches, and government. An invitation to participate was sent by e-mail to 14 stakeholders and eight completed a survey in the month of February 2013. Some participants work in several counties (regional); their responses are included in each county they listed.

Survey 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. All participating stakeholders were assured that their responses would not be associated with them as an individual, or any organization being represented. Therefore, responses are grouped by question and are in no particular order. Some quotes may have been altered slightly to preserve confidentiality. These responses are strictly the opinion of the participants; they have not been researched for accuracy.

Survey Questions and Responses:

1. Describe the services your agency provides for county residents and describe the residents who currently are most likely to use your services.

-Provides food and grocery items to more than 130 501c3 and faith based partners that help hungry men, women, and children; serving primarily low-income, disabled, and working poor from all demographics.

-Provides transportation; serving elderly, lower income levels, and people who cannot drive due to lack of vehicle or no longer has a driver's license

-Provides Emergency Medical Services and Nonemergency Ambulance Transportation; typically serving residents with lower income levels

-Currently retired from educational; serving students of all ages, gender and race

-Provides print materials for research, recreation, and study, as well as computer access to the community at no charge (unless patrons make copies). We offer a cheerful, safe place for families to spend some time together. There are some educational and entertainment programs offered, such as Summer Reading Programs and special professional performers. We make available various items that the County Historical society has to sell, such as county history and commemorative items. We are often the family get-a-way place on Wednesday evenings and Saturday mornings; serving county residents of all ages, races, income levels, and educational levels.

-Provides food and clothing, along with spiritual renewal, counseling, and healing; serving racially a fifty mix of black and white, with little use by Hispanics. The ages run from infant to senior with an income level that probably averages about $24,000 a year.

-Provides parenting support; child care subsidies; and coaching/assistance to child care providers; serving parents (generally mothers) of children under age six, parents of children with special needs, parents of children in child care programs, low income families seeking support to pay for children care; racial make-up generally reflect the counties where people live.

-Provides local government consulting; serving cities, town, and counties

2. In the past 5 years, have there been any changes in the composition of the people who use your services? If yes, please describe.

-Not so much, there has definitely been more use of the computers because so many companies require on-line applications now and so many teachers require computer sources and typed papers. Many county residents do not have computers.

-Demand has grown

-None other than not being aware of the services that modern EMS is able to provide

-More seniors and middle-aged adults as more people have learned of our services

-The composition of people seeking emergency food has grown by 48% over the past five years due to the poor economic climate.

-Groups change because they graduate or move

3. What do you think are the barriers residents encounter in accessing your services?

-Waiting for transportation

-Waiting for transportation

-Transportation and peer pressure

-I do not think there are any real barriers. We have been in a building with the only “people elevator” in the county and will soon move to a single level building.

-Transportation is a barrier for rural NENC residents followed by access. Emergency food programs tend to serve when people are traditionally working.

-Sometimes our services are limited due to the amount of funding we have. Sometimes people simply don't know about our services.

4. 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)?

-No patient is denied for an inability to pay for services; serve all citizens 24/7

-Our staff represents the diversity found in our recipients and our services are free

-We have tried to allow for physical handicapped people and have some Spanish language materials to help those who don't speak English very well. We do not have any resources to provide for things like transportation, child care, cost of classes, etc.

-Language, and help meet any challenges they might have

-All services are free of charge with the exception of some trainings. We provide some services in-home/on-site so there are no transportation costs. We provide child care and meals at some event s to make attendance easier for families. We do not have funds to have a dedicated bilingual person.

-In 2008, we launched a mobile food pantry program to enable more people in rural areas to have greater access to food. The program has been tremendously successful. This program model has been the springboard to provide value added services to the recipients by partnering with the local health department, NC Cooperative Extension Service and social services.

-Usually deal with elected officials boards, so not an issue

5. Is there anything else you would like to share about your organization?

-We exist to bring glory to God by sharing the love of His Son Jesus in our community by reaching out to those in need in our area.

-Agency is currently trying to obtain funding to upgrade to a higher level of pre-hospital care so that we are able to offer paramedic level services.

-We are hoping that we will be able to provide more workshops and other such opportunities once we move into the new building.

-We are always looking for opportunities to collaborate with community.

6. What services/programs are needed that are not currently available?

-I'm sure that there are some. I know that there are many programs offered that people are not aware of or do not know how to access. We have the disadvantage of having only a weekly newspaper which is not widely read and no TV or radio coverage to spread the word about events. The schools are good about allowing notices from official organizations to be sent home, but I'm sure there are many children who like my eldest daughter say, "But Mom, those pretty pieces of paper make the best airplanes!"

-Senior Center and homes

-More outreach/education to those who lack an understanding of the services available

-Senior housing

-We need a shelter for the homeless; we need job training services; we need a public transportation system that runs a specific route to major areas; we need a real farmers market to provide greater access to healthy fruits and vegetables

-More parenting; more services to support health and nutrition of young children; drop-in child care.

-Shopping facilities: clothing and grocery

7. Overall, what would you consider to be the county's greatest strength?

-The school system

-Typically have strong community support for upgrades and changes that positively affect the citizens

-People - many citizens volunteer numerous hours to various causes in the county. People are concerned about their neighbors.

-Low crime rate

-It's HOME! The people are generally speaking, the good ole homebodies that Sheriff Andy dealt with in Mayberry. Of course, there are some "bad eggs" but for the most part people here are caring and sharing, and look out for each other. We are small and rural, but that's not necessarily a bad thing. We are not so far from the city that we can't experience the urban scene, or so far from the beautiful vacation spots that we can't enjoy the same things that we see folks doing in the movies, or so far from excellent higher education facilities that one has to give up the chance to continue with higher education. I've often called Gates County "God's Country" and I've seen nothing to cause me to change my statement.

-The university and community college system seem to be focusing on the future success of NENC and its residents.

-Our natural resources and abundance of outdoor, water, and land features; good healthcare facilities and services

8. What do you feel are the major challenges faced by the county?

-I think limited funding or budget crisis cause people to think that any improvement is impossible to achieve.

-Industry

-The population is aging and the need for services will increase. How does the county provide services with limited financial resources?

-Lack of medical facilities within the county

-Blending the desire of county residents to maintain country living with job growth and senior housing needs

-Poverty/few high paying jobs; lack of recognition that there may be solutions for family concerns; poor schools

-Education improvement; diversification of jobs; poverty

-And yes, God's Country can have some challenges, too. Many of our citizens do not have access to reliable transportation. The county does have the Interagency Transportation System which has helped with that challenge. If you can't get to the doctor, grocery store, or the job interview you are really challenged. Having to drive 30 or so miles to go to the big grocery store, the doctor, the dentist, or to by school clothes for the children is a challenge (though if you have reliable transportation, it becomes more like an adventure away from home).

9. Looking specifically at health, what do you think are the most important health problems/health concerns in the county?

-Diabetes and obesity

-Diabetes and obesity

-Heart disease and cancer are the two major issues

-Alcohol use that is destroying the emotional and physical health of so many of our residents

-I've been fortunate to have good health and so do my children. We also have insurance which has helped in the times we've needed it. I think having only one doctor (no matter how good she is) in the county could be a health problem (she can only do so much in the hours allotted). I worry about those (especially the children) who have no insurance, and therefore do not seek medical help when needed.

-In a word "OBESITY"

-Child and adult obesity

-Increase in cancer; lack of affordable transportation for most of the elderly

10. What factors do you believe are causing these health problems or concerns?

-Proper diet; lack of exercise

-Citizens need to be more aware of dangers of various lifestyle choices. Proper diet and exercise could help with the diabetes and obesity issue.

-Lifestyle and southern food

-Generational patterns; unemployment; lack of corporate community leadership promoting healthy living

-I can't really talk, because I don't eat like I'm supposed to eat. But I do think nutrition is a big factor. If all those "smart" people who make the candy, cookies, and fast food could come up with equally attractive, tasty, and appetizing "good for you—and easy to prepare and eat" food….

-1 in 5 residents lives at or below the poverty level. Having limited financial resources creates the perfect storm. They buy filling foods high in carbohydrates and sugar, and low in nutritional value

because that is what they can afford. The problem we have in this region is that there is a limited supply of jobs that pay a living wage and provide health insurance which equates to a better quality of life.

-High cost of healthy foods

-Unknown

11. What do you think could be done to solve or overcome these health problems or concerns?

-Affordable things for seniors and others

-Classes on nutrition and cooking could be helpful. Access to exercise programs would also be helpful.

-Public education; better heart screenings; different food offerings

-Early recognition of high risk environments; unified voice against destructive behavior; opportunities for life improvement that gives hope for better future

-I don't know. Is "Obama Care" going to do it? There is such a wide variety of health concerns that one umbrella can't possibly cover everything. I think Gates County is much better off than many other places. Maybe the rural character of this place helps with that.

-Education and jobs

-More farmers markets

-More research

12. Please rate the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
There is a good healthcare system in the county	**1**	**2**	**3**	**2**	
The county is a good place to raise children.	**4**	**3**		**1**	
The county is a good place to grow old.	**2**	**2**	**2**	**2**	
There are plenty of ways to earn a living in the county.		**1**		**3**	**4**
The county is a safe place to live.		**6**	**1**	**1**	
There is plenty of support for individuals and families during times of stress and need in the county.	**1**	**3**	**1**	**2**	
The county has clean air.	**1**	**7**			
The county has clean water.	**2**	**5**	**1**		
Comments:					

The number represents the number of responses for each statement

13. Additional thoughts or comments:

-Keep asking for feedback from the community