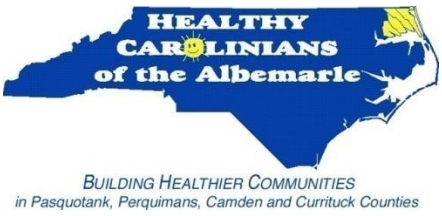
Albemarle Regional Health Services and
Albemarle Health

2013 Camden 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

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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 North Carolina 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 Camden County, the local Healthy Carolinians coalition is Healthy Carolinians of the Albemarle, which also includes Perquimans, Currituck, and Pasquotank counties.

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 Camden 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 Camden County residents, the consultant tapped numerous readily available secondary data sources. For data on Camden 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 Camden County Department of Social Services; Camden County Schools; and other Camden 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 four 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 Camden County. Other important local health data sources included ARHS, and Camden County Emergency Medical Services.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Camden County data is compared to like data describing the state of NC as a whole, as well as to data from Pamlico 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 Camden 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 Camden 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

Camden County is located in the northeastern part of NC and is part of the Coastal Plain region of the state. The county covers a total of 306 square miles, 241 in land and the remaining 65 in water. The county is primarily characterized by low, flat plains and swamp land which includes the Great Dismal Swamp. Camden County contains miles of waterfront along the Pasquotank River, the North River, and the Albemarle Sound (1,2).

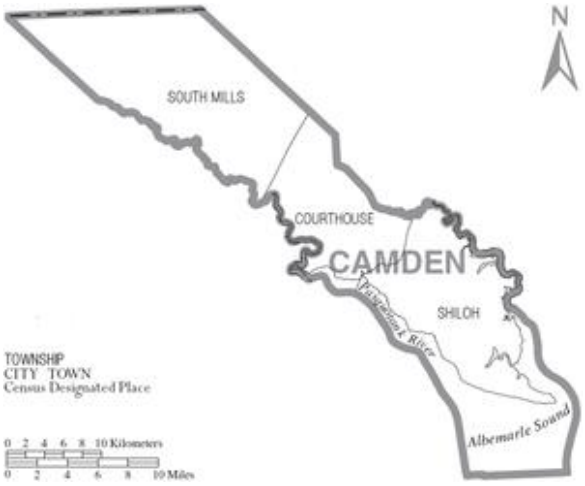
The Town of Camden serves as the county seat. Camden County is adjacent to Pasquotank and Gates counties to the west, Currituck County to the northeast, the Albemarle Sound to the south, and the state of Virginia to the north (1,2).

US Highway 17 runs through the county, connecting to Wilmington, NC to the south and Norfolk, VA to the north. US Highway 158 runs east to west through the county and connects Camden County to the coast. Both highways provide a connection to US Highway 64, the nearest all four-lane highway, which leads to the Outer Banks going east and Raleigh going west (3).

Elizabeth City, in neighboring Pasquotank County, is the nearest Greyhound bus line stop. The nearest Amtrak train station is in Norfolk, VA. The Norfolk International Airport is the nearest commercial airport and is approximately 50 miles from Camden County. The next two closest airports are the Newport News/Williamsburg International Airport in Newport News, VA (approximately 72 miles) and the Pitt-Greenville Airport in Greenville, NC (approximately 106 miles) (2,4,5,6).

The county's elevation ranges from near sea level in the south to 24 feet in the northwestern corner. Camden County has a relatively mild climate with the average high temperature in July being 89 degrees and the average low in January, 32 degrees. The county receives an average of 50 inches of precipitation yearly and has an average of 213 sunny days each year (7).

Figure 1. Map of Camden County



HISTORY

Camden County was formed in 1777 from the northeastern part of Pasquotank County and named for Sir Charles Pratt. Pratt, who was the first Earl of Camden and Chief Justice of the Common Pleas Court in British Parliament during the American Revolution, firmly defended colonial independence and was an admirer of the bravery of the colonies as they stood against the British Crown (2,8).

The earliest Native Americans in the region were the Weapemeoc and Tuscarora, both having influence on Camden County before Europeans arrived to the region. The first colonists to the county were Virginians and other northerners who reached the area by journeying down the Pasquotank River. Many of these colonists took notice of the region's rich soil and recognized the potential for agricultural production. Prominent and prosperous families lived on thriving plantations prior to 1700 and throughout the 18th century. Even in the present day, nearly a third of the county's land is farmland and among the agricultural products to come from this region are cotton, corn, barley, soybeans, and potatoes (8,9).

The original county seat, incorporated as Jonesborough in 1792, had been known as Plank Bridge as early as 1740. The community was known by the name of Camden Court House by 1840 and the name was later shortened to Camden. Other than the Courthouse Township of Camden, the county is also home to South Mills Township and Shiloh Township. Camden County covers approximately 241 square miles and contains a large amount of water and wetlands. It has been speculated that the Great Dismal Swamp is one of the youngest wetlands on the North American continent. Its mysterious allure led to its being referenced by several literary figures in their works (2,8,9,10).

Earning a valuable reputation during the Revolutionary War, Camden County furnished 416 men and officers, more than any other northeastern county in the state. Two of Camden County's residents to serve in the war were Dempsey Burgess and Lemuel Sawyer, also the only men from Camden County who served in the United States Congress. Additionally, Isaac Gregory was a significant figure in the county's history. Gregory was appointed in 1790 by President George Washington to be the first collector of customs for the Port of Camden, a port of entry on Sawyer's Creek. The port was an active one and brought commercial benefits to the entire community. The banks of the creek were dotted with wharves and warehouses, but as ships of heavier tonnage were being built and utilized, the once flourishing trade vanished due to the shallowness of the creek. Gregory's promotion in 1779 to the office of Brigadier General in the state militia made him the highest ranking Revolutionary officer in the Albemarle region. He fought with valor at the Battle of Camden, South Carolina and after the war was elected once to the House of Commons and successively re-elected to the State Senate for the next eight years (2,8,9).

One of the biggest events in Camden County was the construction of the Dismal Swamp Canal, a 22 mile-long canal connecting South Mills (which was then New Lebanon) and Deep Creek, VA. Construction began in 1793 while George Washington still held the presidency and ended in 1805. The canal is the oldest surviving artificial waterway in the United States. It was first used as a trade route with hundreds of flatboats, passenger ships, and freighters plying its waters. The canal is still enjoyed today as a scenic waterway for pleasure craft. Connecting the Chesapeake Bay to the Albemarle Sound, it is now owned by the federal government and makes up a section of the Intracoastal Waterway (2,8,9).

Among the historical sites of the county are The Camden County Courthouse, St. Joseph Episcopal Church, Caleb Grandy House, Milford House, Abbott House, and the Sanderlin-Prichard House. Milford, constructed in 1746 is believed to be the oldest two-story brick house still standing in NC and it is surmised that it was part of a farm or plantation in the 1800s. An unusually large Greek Revival plantation house near South Mills, the William Riley Abbott house was built in the 1840s and said to have been used as a hospital for soldiers wounded in the Battle of Sawyer's Lane (2,9).

The Battle of Sawyer's Lane took place in 1862 when Union forces attempted to blow up the canal locks at South Mills in order to impede use of the Dismal Swamp Canal by Southern vessels. Confederate troops, led by a commander who had selected his defensive position with great care, were able to withstand all assaults for three hours before the Federal troops withdrew (9,11).

Two of the early colonial era's most important churches were located in Camden County. Shiloh Baptist Church, the oldest continuous Baptist congregation in NC, was established by Reverend William Burgess on his land in the late 1720s and was known as Burgess' Meeting House until 1812. It went on to become one of the largest churches in the Albemarle colony. McBride Church, established in 1792, was originally an Anglican church in the 1730s. However, after the Revolutionary War Anglican influence decreased and McBride became a Methodist Church. The church was named for Elisha McBride, a member of the General assembly and a community leader who played an important part in the beginning of Methodism in Camden County (8,9).

Today residents of Camden County still take pride in their rural population, school system, and county government. Camden is the first and only consolidated city-county in NC, achieving this status in June 2006. The waters of the county are enjoyed annually by boaters, swimmers, naturalists, and fishermen. Also enjoyed by outdoorsmen for the hunting, Camden County has the largest turkey population in the state. Presently, the Great Dismal Swamp is the most important sanctuary for black bears in the eastern United States as well as a vital breeding ground for songbirds returning from migrations to Central and South America. Among points of interest are the seven silver and black markers provided by the NC Highway Historical Marker Program, representing the Battle of South Mills, the Dismal Swamp Canal, Dempsey Burgess, Isaac Gregory, Lemuel Sawyer, William Reed, and McBride Church. The Dismal Swamp Canal Welcome Center greets highway and boating traffic and visitors can find opportunities there which include hiking, biking, birding, paddling and photography. Dismal Swamp State Park provides a boardwalk into the swamp and over sixteen miles of hiking and mountain biking trails, among other attractions (2,8).

POPULATION CHARACTERISTICS

General Population Characteristics

The following general population characteristics of Camden 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 Camden County was 9,980.
- There was a slightly higher proportion of males than females in Camden County: 50.2% vs. 49.8%.
- The overall median age in Camden County was 40.1 years, 1.9 years younger than the median age for the seven-county ARHS region but 8.2 years younger than for Pamlico County, an assigned peer county. The median age in Camden County was 2.7 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
Camden County	9,980	5,006	50.2	39.7	4,974	49.8	40.4	40.1
Regional Average	19,416	9,517	49.0	40.7	9,900	51.0	43.2	42.0
Pamlico County	13,144	6,710	51.0	46.6	6,434	49.0	49.8	48.3
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

Camden County is divided into three townships: Courthouse Township, Shiloh Township, and South Mills Township. The following population information was derived from 2010 US Census data presented in Table 2.

- Courthouse Township was the largest township by population in Camden County, accounting for 38% of the county's population.
- South Mills Township was the second-largest township in Camden County, with 37% of the county's population.
- South Mills Township was the youngest township in the county in terms of median age: 39.2 years.
- Shiloh Township was the oldest township in the county, with a median age of 42.3 years.

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

Township	No. of Persons	% of County Population	Median Age
Courthouse Township	3,822	38.3	39.7
Shiloh Township	2,506	25.1	42.3
South Mills Township	3,652	36.6	39.2
Camden County Total	**9,980**	**100.0**	**40.1**

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 county population figures and population projections from 1980 through 2030. From this data, it appears that the Camden County population grew tremendously in the decade between 2000 and 2010, but that population growth is expected to continue at a significantly slower pace through 2030.

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
Camden County	5,829	5,904	1.3	6,885	16.6	9,980	45.0	10,801	8.2	11,600	7.4
Regional Average	13,908	14,941	7.4	16,550	10.8	19,416	17.3	20,096	3.5	20,772	3.4
Pamlico County	10,398	11,368	9.3	12,934	13.8	13,144	1.6	13,581	3.3	14,005	3.1
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

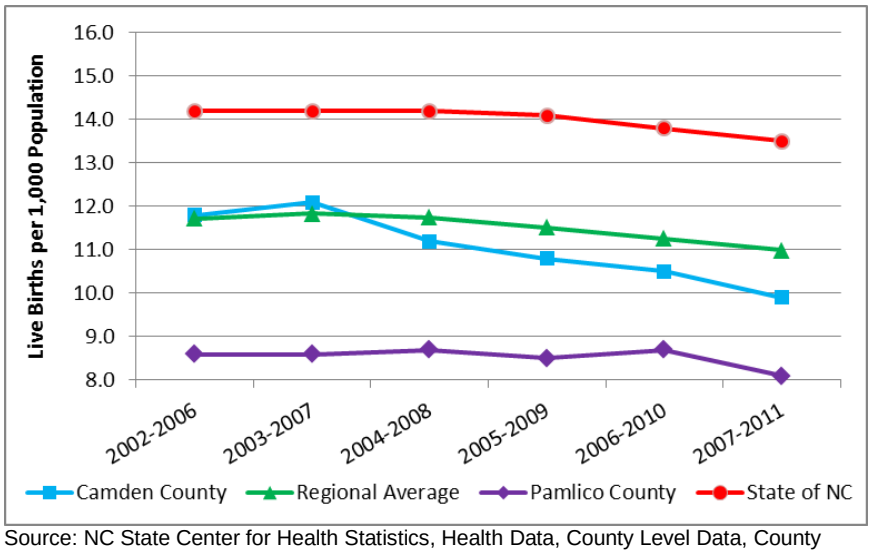
Note: percentage change is calculated.
Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population (Data Item 5001); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Birth Rate

Overall population growth is a function both of increase (via immigration and birth) and decrease (via emigration and death). Figure 2 presents the birth rate trend for the comparator jurisdictions.

- In Camden County, the birth rate decreased 16% between 2002-2006 and 2007-2011, from 11.8 to 9.9 live births per 1,000 population.
- In Pamlico County, the ARHS region, and the state of NC, the birth rate also declined overall between 2002-2006 and 2007-2011.
- Despite its decline, the birth rate for NC exceeded the comparable rates in the other jurisdictions for every 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 population in Camden County appears to be *increasing* in density, as it is in the comparator jurisdictions. From 1980 through 2000, Camden County was the least densely populated jurisdiction among those being compared; Pamlico County has been the least densely populated jurisdiction since (Table 4).

Table 4. Decadal Population Density (1980-2030)

Location	Persons per Square Mile					
	1980	1990	2000	2010 (Estimate)	2020 (Projection)	2030 (Projection)
Camden County	24.24	24.53	28.61	43.19	54.17	64.99
Regional Average	50.91	55.99	62.72	75.55	86.94	94.46
Pamlico County	30.52	33.74	38.39	39.82	41.49	42.41
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 Camden County was the least racially diverse of the four jurisdictions being compared. According to data in Table 5 from the 2010 US Census, the non-white population in Camden County was approximately 18% of the total population, compared to 36% in the region and 32% in NC. The non-white population in Pamlico County was 24% of the total population there.

According to data in Table 5, in Camden County:

- Whites composed 82.1% of the total population; regionally the comparable figure was 63.7% and statewide the figure was 68.5%.
- Blacks/African Americans composed 13.2% of the total population; regionally the comparable figure was 32.2% and statewide the figure was 21.5%.
- American Indians and Alaskan Natives composed 0.3% 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 1.5% of the total population; regionally the comparable figure was 0.7% and statewide the figure was 2.3%.
- Hispanics/Latinos of any race composed 2.2% 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.	%
Camden County	9,980	8,193	82.1	1,316	13.2	33	0.3	151	1.5	74	0.7	213	2.1	215	2.2
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
Pamlico County	13,144	10,032	76.3	2,632	20.0	77	0.6	61	0.5	163	1.2	179	1.4	412	3.1
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 Camden County was derived from 2010 US Census data presented in Table 6.

- All townships in Camden County were predominately white.
- South Mills Township was the township with the largest *number* of Black/African Americans, 561; this figure represented 5.6% of the total county population and 42.6% of all Black/African American persons in the county.
- Courthouse Township was the township with the largest *number* of whites, 3,129; this figure represented 31.4% of the total county population and 38.2% of all the white persons in the county.
- South Mills Township was the township with the largest *number* of Hispanics/Latinos, 87; this figure represented 0.9% of the total county population and 40.5% of all Hispanic/Latino persons in the county.

Table 6. Population by Race/Ethnicity, by Township, Camden 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	%
Courthouse Township	3,822	3,129	31.4	548	5.5	7	0.1	38	0.4	11	0.1	89	0.9	72	0.7
Shiloh Township	2,506	2,147	21.5	207	2.1	9	0.1	75	0.8	31	0.3	37	0.4	56	0.6
South Mills Township	3,652	2,917	29.2	561	5.6	17	0.2	38	0.4	31	0.3	87	0.9	87	0.9
Camden County Total	**9,980**	**8,193**	**82.1**	**1,316**	**13.2**	**33**	**0.3**	**151**	**1.5**	**73**	**0.7**	**213**	**2.1**	**215**	**2.2**

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 Camden County population was derived from 2010 US Census data presented in Table 7. Generally, these data demonstrate that Camden County had a population distribution skewed slightly younger than the distribution for the state as a whole.

- In terms of both numbers (897) and percent (9.0%), the largest segment of the population in Camden County was the age group 45-49. That was the same as in NC as a whole, where that particular age segment also composed the largest number and percent (7.3%) of the overall population.
- Persons 65 years of age or older composed 12.7% of the population in Camden County, and 12.8% of the population of NC.
- Persons 19 years of age and younger composed 28.0% of the population in Camden County, but 26.8% of the population of NC.
- In Camden County, females consistently outnumber males in every age group 65-69 and older. In NC, a similar trend begins sooner, at age 45-49.

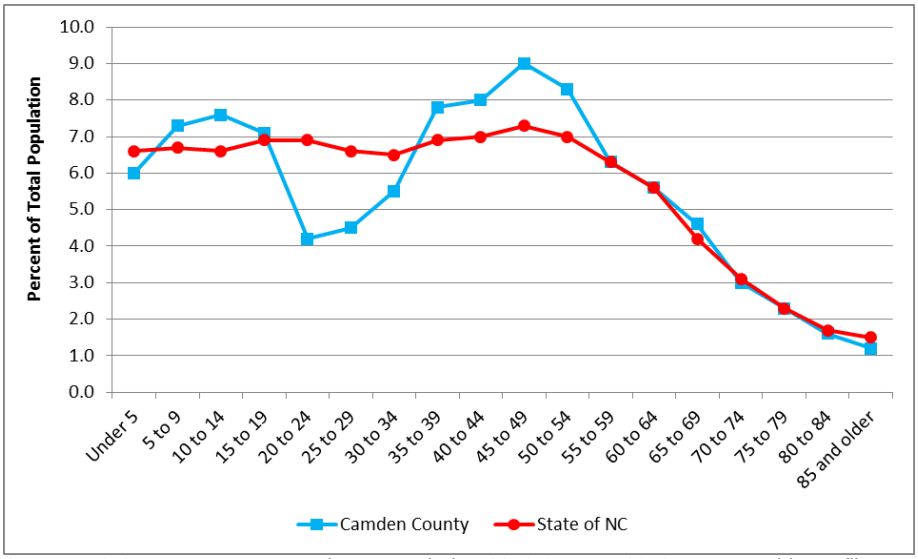
Table 7. Population Distribution by Age and Gender, Number and Percent (2010 US Census)

Age Group	Camden 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	9,980	5,006	4,974	100.0	50.2	49.8	9,535,483	4,645,492	4,889,991	100.0	48.7	51.3
Under 5	595	331	264	6.0	3.3	2.6	632,040	322,871	309,169	6.6	3.4	3.2
5 to 9	726	358	368	7.3	3.6	3.7	635,945	324,900	311,045	6.7	3.4	3.3
10 to 14	759	366	393	7.6	3.7	3.9	631,104	322,795	308,309	6.6	3.4	3.2
15 to 19	706	383	323	7.1	3.8	3.2	659,591	338,271	321,320	6.9	3.5	3.4
20 to 24	415	219	196	4.2	2.2	2.0	661,573	336,648	324,925	6.9	3.5	3.4
25 to 29	450	217	233	4.5	2.2	2.3	627,036	311,499	315,537	6.6	3.3	3.3
30 to 34	550	271	279	5.5	2.7	2.8	619,557	304,807	314,750	6.5	3.2	3.3
35 to 39	780	382	398	7.8	3.8	4.0	659,843	324,681	335,162	6.9	3.4	3.5
40 to 44	798	390	408	8.0	3.9	4.1	667,308	329,652	337,656	7.0	3.5	3.5
45 to 49	897	465	432	9.0	4.7	4.3	698,753	341,432	357,321	7.3	3.6	3.7
50 to 54	825	421	404	8.3	4.2	4.0	669,893	323,702	346,191	7.0	3.4	3.6
55 to 59	633	324	309	6.3	3.2	3.1	600,722	285,244	315,478	6.3	3.0	3.3
60 to 64	563	285	278	5.6	2.9	2.8	538,039	255,034	283,005	5.6	2.7	3.0
65 to 69	463	226	237	4.6	2.3	2.4	403,024	188,125	214,899	4.2	2.0	2.3
70 to 74	304	139	165	3.0	1.4	1.7	294,543	133,021	161,522	3.1	1.4	1.7
75 to 79	233	110	123	2.3	1.1	1.2	223,655	94,981	128,674	2.3	1.0	1.3
80 to 84	159	71	88	1.6	0.7	0.9	165,396	63,573	101,823	1.7	0.7	1.1
85 and older	124	48	76	1.2	0.5	0.8	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.

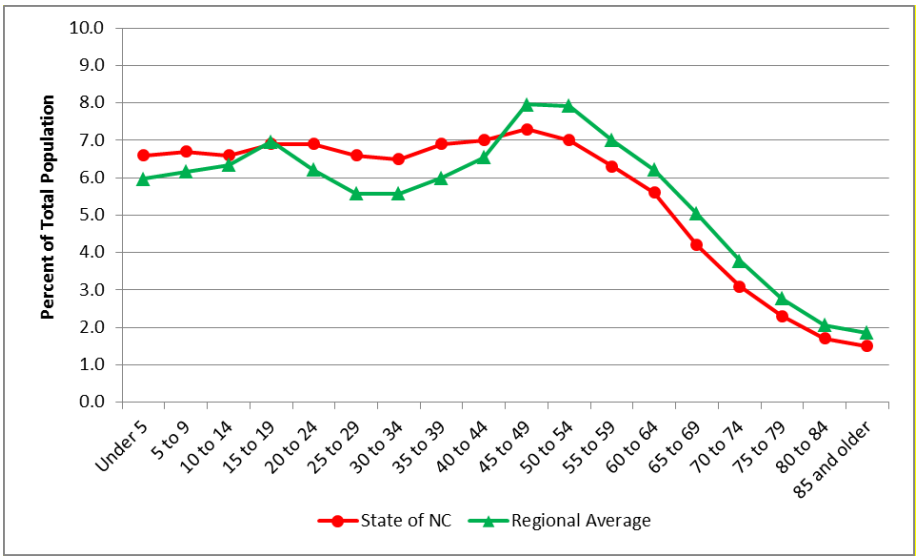
Figures 3 and 4 compare the age distribution of the NC population to the age distribution of the populations in Camden County and the ARHS Region, respectively. In Camden County there was a smaller proportion of young persons *except* ages 5 to 19 and a larger proportion of middle-aged persons than demonstrated in the state age distribution profile.

Figure 3. Population Distribution by Age, Camden 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.

- South Mills Township was the township with the highest proportion of persons under the age of 18 (26.4%), ages 25-34 (10.4%) and ages 45-54 (17.8%).
- Courthouse Township had the highest proportion of persons ages 18-24 (6.8%) and ages 35-44 (12.5%).
- Shiloh Township had the highest proportion of persons ages 55-64 (13.5%) and age 65 and older (15.1%).

Table 8. Population by Age, by Township, Camden 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
Courthouse Township	26.3	6.8	9.5	16.4	17.0	11.5	12.6
Shiloh Township	23.4	6.2	10.3	14.6	16.9	13.5	15.1
South Mills Township	26.4	6.2	10.4	16.1	17.8	11.4	11.6
Camden County Total	25.6	6.5	10.0	15.8	17.3	12.0	12.9

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

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 Camden 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 Camden 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 85 and older, which is predicted to grow by 158% over that period, from 1.2% to 3.1% 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 ages 75-84, which is predicted to grow by 92% over that period, from 3.9% to 7.5% of the total county population.
- The segment of the Camden County population age 65 and older is projected to total 2,506 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+
Camden County	6,885	933	13.6	551	8.0	300	4.4	82	1.2
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
Pamlico County	12,934	2,429	18.8	1,455	11.2	722	5.6	252	1.9
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+
Camden County	9,980	1,283	12.9	767	7.7	392	3.9	124	1.2
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
Pamlico County	13,144	2,857	21.7	1,655	12.6	929	7.1	273	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+
Camden County	10,184	1,835	18.0	1,046	10.3	578	5.7	211	2.1
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
Pamlico County	13,451	3,963	29.5	2,188	16.3	1,273	9.5	502	3.7
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+
Camden County	10,364	2,506	24.2	1,412	13.6	777	7.5	317	3.1
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
Pamlico County	13,572	4,412	32.5	2,064	15.2	1,651	12.2	697	5.1
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 Camden County had:

- the lowest proportion with *less* than a high school diploma or GED (25.5%);
- the lowest proportion with a graduate or professional degree (2.5%);
- the highest median household income ($40,811); and
- the co-lowest (with the region) monthly social security benefits ($1,047).

In addition, Camden County had the lowest proportion of persons age 65 or older in the labor force (11.7%) and the co-highest proportion (with Pamlico County) of elderly homeowners (89.1%).

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)
Camden County	25.5	2.5	89.1	11.7	$40,811	$1,047
Regional Average	31.7	4.6	84.6	15.2	$30,795	$1,047
Pamlico County	26.9	8.4	89.1	12.2	$35,670	$1,091
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 397 foreign-born residents residing in Camden County in 2010. Using a base 2010 population figure of 9,980 (cited previously), foreign-born residents made up 4% of the total county population at that time.
- Since 1980, the largest influx of the foreign-born population in Camden County—167 persons—arrived between 2000 and 2010, an increase of 73% over that 10-year span. Over the same period, the foreign-born population region-wide increased by 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	
Camden County	102	52	76	167	72.6
Regional Total	1,345	581	595	1,784	70.8
Pamlico County	167	8	180	155	43.7
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 3,484 Camden County households included in the statistic, an estimated 82 (2.4%) spoke a language other than English. Of these, an estimated 28 (34.1%) were linguistically isolated.
- The largest number of linguistically isolated households in Camden County in the period cited (21) occurred within population speaking Asian or Pacific Island languages. The remainder of the linguistically isolated households in the county 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
Camden County	3,484	3,402	7	0	0	34	21	20	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
Pamlico County	5,405	5,240	19	67	0	70	0	5	0	4
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.

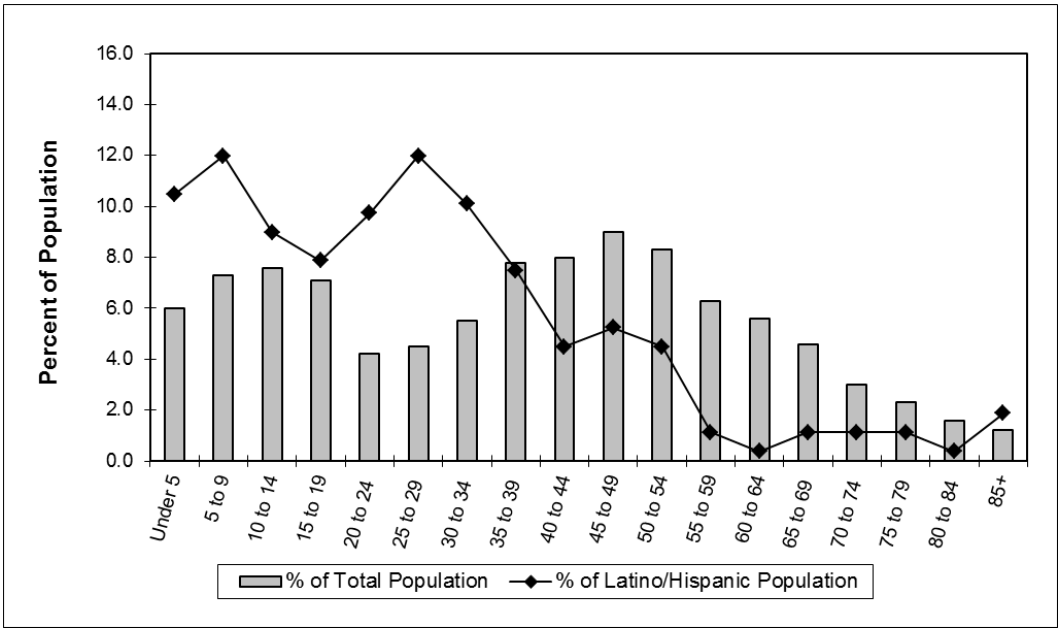
Age Distribution of the Latino Population

In Camden County, as in other counties in NC, a major impetus for immigration especially from Spanish-speaking countries—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 Camden County population compared to the same profile for the Hispanic/Latino population.

- In Camden County all age groups under the age of 35 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 Camden County occurred in the under 5-9 and 25-29 age groups. In the overall county population, the highest proportions were in age groups covering the span from 35 to 54.

Figure 5. Age Distribution of Overall and Latino Populations in Camden 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 of Camden County had the second-largest proportion of military veterans among the jurisdictions under comparison. Veterans composed 14.3% of Camden County's overall adult civilian population in the period cited. Pamlico County had the highest proportion of veterans, 14.6%.

In Camden County, 31.1% of veterans were age 65 or older, compared to 53.3% in Pamlico County. Region-wide 38.0% of veterans were 65 or older, compared to 35.7% statewide and 40.0% nationally.

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
Camden County	6,976	5,978	85.7	998	14.3	3.2	10.0	25.7	15.6	15.5
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
Pamlico County	10,693	9,131	85.4	1,562	14.6	3.0	18.8	24.9	28.2	25.1
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 19 blind or visually-impaired persons living in Camden 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)
Camden County	19
Regional Total	463
Regional Average	66
Pamlico County	36
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

Special Needs Registry

In order to assist residents with special needs in the event of an emergency, county Emergency Management Officials develop a special needs registry to help emergency workers know about residents that may have difficulties managing for themselves during a disaster such as a hurricane, flood, winter storm, power outage, disease outbreak or other community-level emergency. Persons volunteer to be included on the registry and have the choice to accept or decline assistance when it is offered.

The Pasquotank-Camden Special Needs Registry is a database containing information about individuals in Pasquotank and Camden Counties who may require special assistance in the event of a disaster. The purpose of the registry is to provide emergency responders with

important information about people in the affected area needing specialized help and to allow emergency responders to develop a more effective response. The information from the database will also be used to assist emergency planners in developing policies and procedures to address community needs in the event of a disaster.

A portion of the information from the Special Needs Registry application process is input into the Pasquotank-Camden Central Communication's (911) database system to be utilized as a record of the applicant's needs. This information may be shared with emergency responders, as needed, in response to an emergency call received from the applicant's address.

All information obtained is strictly confidential and can be utilized for emergency purposes or human service agency use only. The information collected is made available only to disaster responders, disaster planners, and persons who manage/assist with management of the information database or work towards providing services for persons with special needs. It is not made available to the public or any agency or organization that is not involved in the disaster response, disaster planning or mitigation.

The Registry is for anyone who has unique needs that hinder or prevent them from taking protective actions on their own. Examples include:

- People that need outside help to safely leave their home during a disaster;
- People that may be in jeopardy if they had to stay in their home for three days, without assistance;
- People with medical conditions requiring special equipment.
- People requiring life-support equipment that is dependent on electrical power.
- People with cognitive or developmental disabilities.
- People needing special notification about the need for evacuation, due to impairment.

Pasquotank-Camden Emergency Management is responsible for maintaining the Special Needs Registry. Various agencies (i.e. DSS, Home Care Agencies, Agency on Aging, etc.) assist with the circulation of registry applications. Assistance may be received from the County GIS Departments for mapping purposes. Emergency Management volunteers and/or county/city employees may also assist with notifications to registrants during times of disasters. The Special Needs Registry is updated annually to ensure current contact and health information and to purge outdated registrations (12).

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 Camden 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 82% of the registered voters in Camden County were white and 16% were Black/African American, close to the proportions those racial groups represented in the overall county population (82% and 13%, 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.	%
Camden County	8,418	7,531	100.3	6,137	81.5	1,165	15.5	13	0.2	25	0.3	216	2.9
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
Pamlico County	11,245	9,330	100.4	7,209	77.3	1,850	19.8	30	0.3	41	0.4	241	2.6
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
Camden County	63.00	48.00	68.15	43.54	63.67
Regional Average	58.57	35.29	68.67	44.37	65.81
Pamlico County	62.00	44.00	71.66	51.59	71.20
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 Camden 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 Camden County (January, 2013)

Religious Bodies	Number of Congregations	Number of Adherents
African Methodist Episcopal Zion Church	2	310
Anglican Church in North America	1	0
Assemblies of God	1	24
Christian Churches and Churches of Christ	2	384
Church of God in Christ	2	558
International Pentecostal Holiness Church	1	11
National Baptist Convention, USA, Inc.	2	372
Southern Baptist Convention	2	866
United Methodist Church	5	775
Vineyard USA	1	56
TOTAL	19	3,356

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

The Camden County Sheriff's Department, headquartered in Camden, serves the entire county, since there are no municipalities with separate police departments.

Fire and Rescue Departments

The two fire departments that serve Camden County are listed in Table 18.

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

Department Name	Location
South Camden Fire Department	Camden
South Mills Volunteer Fire Department, Inc.	South Mills

Source: Departments, Fire Departments; Camden County NC, website; http://www.co.Camden.nc.us/departments/fire-departments.html.

Public Libraries

There is one public library that serves the people of Camden County: the Pasquotank-Camden Public Library, physically located in Elizabeth City (Pasquotank County) (13):

Camden County Senior Center

The Camden County Senior Center provides recreational, social and supportive services for mature adults. Senior adults can visit the Center to explore new experiences, enjoy various activities, gain knowledge, mingle with friends, and exercise.

The senior center is an information and resource medium for seniors and their families. It offers health presentations, spiritual enrichment, entertainment such as bands and performers, arts and crafts projects, and exercise programs. The Center sponsors trips to various places such as shopping at outlets in this area, going to see plays, and visiting residents in nursing homes.

Center services include:

- Congregate meals are offered Monday through Friday for people 60 years of age or older; reservation is required.
- Home-delivered meals are provided to home-bound persons age 60 or older who live within a five mile radius of the Center.
- Fitness center is open weekdays for access by people 55 years of age or older. There is no charge for using the fitness center, but people must be registered with the Senior Center to use the facility.
- Medicaid application assistance is provided by Center staff although applicants must present the application form to the Department of Social Services for processing.

The Center can arrange transportation to and from the center through the Inter-County Public Transportation (ICPTA). There is no cost to join, but registration is required (14).

Other Community Services and Organizations

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 Camden 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.]

Camden County Community Resource Directories and Guides

Camden County Government Directory of Services

Alphabetical list of live links to services provided by the county.
Portal: http://www.camdencountync.gov/.

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=Camden.

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, Camden County was assigned a Tier 1 designation; its peer, Pamlico County, was assigned a Tier 2 designation (15).

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 parameters: building permits. The years were selected to demonstrate the effect of the national recession began.

- The number and value of building permits issued by Camden County fell dramatically after 2008, and have not yet fully recovered to pre-recession levels.

Table 19. Number and Value of Building Permits Issued, Camden County (2008; 2010-2012)

Permit Type	2008		2010		2011		2012[1]	
	No.	Value	No.	Value	No.	Value	No.	Value
Manufactured Structures (Homes)	23	$3,525,592	10	$1,813,107	9	$1,471,300	6	$556,700
Commercial Structures	8	6,011,227	3	2,077,100	2	1,068,600	1	3,681,500
Single Family Dwelling Structures	112	31,738,800	8	2,244,400	11	2,937,800	12	3,708,100
Total	143	41,275,619	21	6,134,607	22	5,477,700	19	7,946,300

[1] – January through October only

Source: Dan Porter, Planning Director, Camden County. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 12, 2012

Table 20 presents an annual summary of another economic indicator—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 the region, whose collections are all below the arithmetic average for the region.
- 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.

- Gross collections in Camden County were lowest over the period cited in FY2008-09, but since have rebounded.

Table 20. 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 21 summarizes recent income data for Camden County and its comparators. Among these jurisdictions:

- Per capita personal income was highest statewide and lowest region-wide, where the figure was almost $5,000 lower than the state average. In Camden County, per capita personal income was $2,778 lower than the state average.
- Median household income was lowest in the region and highest in Camden County, where the figure was $625 above the state average.
- Median family income was lowest in Pamlico County and highest in Camden County, where the figure was over $21,000 higher than the state average.

Table 21. 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
Camden County	$21,177	-$2,778	$44,541	$625	$74,320	$21,400
Regional Average	$19,135	-$4,820	$36,236	-$7,680	$55,017	$2,097
Pamlico County	$22,685	-$1,270	$36,519	-$7,397	$51,630	-$1,290
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 22 details the various categories of industry by sector in Camden 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 Camden County that employed the largest percentage of the workforce (24.70%) was Educational Services (average annual wage of $44,721).
- Retail Trade accounted for the second largest percentage of the Camden County workforce, at 22.93% ($15,640), followed in third place by Administrative and Waste Services, at 14.42% ($66,457). No other single sector accounted for as much as 8% of the total workforce in Camden County.
- In Pamlico County, the sector employing the largest percentage of the workforce (17.23%) was Educational Services, followed by Public Administration (16.93%), and Retail Trade (15.67%).
- 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 Camden County in 2011 was $38,266, $9,002 more than the average annual wage per employee in Pamlico County, $8,055 more than the average region-wide, but $8,506 less than the average statewide.

Table 22. Insured Employment and Wages by Sector
(Annual Summary, 2011)

Sector	Camden County			Pamlico 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	115	5.80	$45,426	77	2.94	$30,947	956	2.94	$32,961	29,340	0.76	$28,752
Mining	n/a	n/a	n/a	*	n/a	*	0	n/a	n/a	3,378	0.09	$45,828
Utilities	8	0.40	*	*	n/a	*	8	0.02	n/a	13,917	0.36	$76,552
Construction	106	5.34	$28,854	171	6.52	$33,715	1,119	3.45	$29,678	194,022	5.03	$41,316
Manufacturing	35	1.76	$49,436	170	6.48	$26,154	1,326	4.08	$39,387	448,566	11.64	$52,613
Wholesale Trade	22	1.11	$41,349	33	1.26	$36,201	1,187	3.66	$37,610	167,533	4.35	$61,194
Retail Trade	455	22.93	$15,640	411	15.67	$20,355	4,292	13.22	$20,787	441,664	11.46	$24,650
Transportation & Warehousing	46	2.32	$32,538	65	2.48	$31,534	1,129	3.48	$40,975	125,395	3.25	$43,400
Information	7	0.35	$32,441	34	1.30	$20,839	217	0.67	$32,064	72,495	1.88	$63,833
Finance & Insurance	29	1.46	$47,893	48	1.83	$31,961	1,006	3.10	$39,722	149,135	3.87	$75,088
Real Estate & Rental & Leasing	22	1.11	$24,859	17	0.65	$23,948	635	1.96	$22,342	49,753	1.29	$38,476
Professional, Scientific & Technical Services	126	6.35	$60,320	87	3.32	$39,625	1,062	3.27	$43,178	180,237	4.68	$66,951
Management of Companies & Enterprises	n/a	n/a	n/a	n/a	n/a	n/a	53	0.16	$23,125	73,019	1.89	$88,763
Administrative & Waste Services	286	14.42	$66,457	30	1.14	$41,846	1,180	3.63	$29,725	212,177	5.50	$30,258
Educational Services	490	24.70	$44,721	452	17.23	$34,552	4,597	14.16	$34,771	382,110	9.91	$39,787
Health Care & Social Assistance	*	n/a	*	405	15.44	$22,545	5,619	17.30	$29,459	552,337	14.33	$42,811
Arts, Entertainment & Recreation	*	n/a	*	*	n/a	*	341	1.05	$18,092	68,749	1.78	$28,474
Accommodation & Food Services	32	1.61	$14,893	179	6.82	$12,676	2,866	8.82	$12,263	346,059	8.98	$14,877
Other Services	65	3.28	$37,905	*	n/a	*	1,136	3.50	$23,337	241,703	6.27	$43,641
Public Administration	140	7.06	$31,259	444	16.93	$32,064	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	1,984	100.00	$38,266	2,623	100.00	$29,264	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 23 lists the largest 25 employers in Camden County as of the end of the 3rd Quarter, 2011.

- Only two employers listed—Camden County Board of Education and Rainbow Shops—employed more than 250 people.

Table 23. Largest 25 Employers in Camden County (Third Quarter, 2011)

Rank	Employer	Industry	No. Employed
1	Camden County Board Of Education	Education & Health Services	250-499
2	Rainbow Shops/Emphasis/Ups N Downs	Trade, Transportation & Utilities	250-499
3	Blackwater Lodge & Training Center	Education & Health Services	100-249
4	Epi Management Services Llc	Professional & Business Services	100-249
5	Caci Technology Inc	Professional & Business Services	50-99
6	County Of Camden	Public Administration	50-99
7	Northeastern Community	Education & Health Services	50-99
8	Command Decisions Systems & Solutions	Professional & Business Services	Below 50
9	Burkes Outlet Stores Sc Inc	Trade, Transportation & Utilities	Below 50
10	Hyman & Robey, Pc	Professional & Business Services	Below 50
11	L-3 Communications	Professional & Business Services	Below 50
12	C & L Concrete Works Inc	Construction	Below 50
13	Swain & Temple Inc	Natural Resources & Mining	Below 50
14	George Woods Farms Inc	Natural Resources & Mining	Below 50
15	Tidewater Agronomics Inc	Professional & Business Services	Below 50
16	Shiloh Shopping Center Inc	Trade, Transportation & Utilities	Below 50
17	Sampson-Bladen Oil Co Inc	Trade, Transportation & Utilities	Below 50
18	Geo. Raper & Son Inc	Construction	Below 50
19	Itza Boutza Pizza	Construction	Below 50
20	Briarwood Forest Products Inc	Natural Resources & Mining	Below 50
21	Buddy Gregory's Body Shop Inc	Other Services	Below 50
22	Star Services, Inc., DBA Pestar	Professional & Business Services	Below 50
23	High Tech Welding Inc	Other Services	Below 50
24	Colony Tire Corporation	Trade, Transportation & Utilities	Below 50
25	Elizcity Food Service Llp	Leisure & Hospitality	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 24 summarizes 2007-2011 estimated travel for employment data for Camden County and its comparator jurisdictions.

- A small fraction—16%—of Camden County resident workers were employed within the county.
- Of the 3,672 Camden County resident workers who left the county for work, 1,642 (38%) worked out-of-state and 2,030 (46%) worked elsewhere in NC.
- In Pamlico County, 49% of resident workers worked in-county; 49% of the remaining workers worked elsewhere in NC, and only 2% worked out-of-state.
- 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 24. 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
Camden County	4,384	2,742	62.5	712	16.2	2,030	46.3	1,642	37.5	3,672	83.8
Regional Average	8,155	6,265	75.6	4,236	44.8	2,029	30.8	1,890	24.4	3,919	55.2
Pamlico County	5,085	4,971	97.8	2,495	49.1	2,476	48.7	114	2.2	2,590	50.9
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 25 compares data on modes of transportation to work from the 2000 US Census and a 2011 Census Bureau estimate.

- Few Camden County workers used public transportation to get to work in either 2000 or 2007-2011, but the number did increase from one period to the next. Use of public transportation for getting to work was not common in any of the jurisdictions being compared.
- The number of Camden County workers who carpooled decreased 36% between 2000 and 2007-2011. Carpooling also decreased in Pamlico County and statewide over the same period, but increased slightly region-wide.
- The number of workers who walked to work increased only in NC as a whole.
- The number of Camden County workers who worked at home decreased 18% between 2000 and 2007-2011; the comparable figure decreased 35% in Pamlico County, but working-at-home increased significantly in NC and region-wide.

Table 25. 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
Camden County	2,488	3,904	494	317	12	35	27	1	96	79
Regional Average	5,233	6,065	1,185	1,249	49	36	166	135	164	220
Pamlico County	3,670	3,969	814	802	37	15	154	95	171	111
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 Camden County

Public transportation in Camden County is provided by the Inter-County Public Transportation Authority (ICPTA), operated by Albemarle Regional Health Services, which serves the five-county area of Camden, Chowan, Currituck, Pasquotank and Perquimans counties.

ICPTA's demand-response and subscription services are intended to assist the general public in accessing health and social services such as medical appointments and nutrition sites or attending activities related to daily living such as shopping, education, employment and recreation. Hours of operation are form 4:30 am - 7:30 pm, Monday through Friday, although it is possible to schedule transportation outside of this time frame with approval of management. While much travel is within the region, the service also transports passengers to other locations in NC and the Hampton Roads region of VA.

The ICPTA fleet of buses and vans are equipped with special features to transport the handicapped and the elderly; for example, vehicles are equipped with wheelchair lifts mounted at the rear and at the side for easy and safe loading and off- loading. Drivers are required to participate in road training, on-the-job training, emergency operating training, and periodic safety meetings (16).

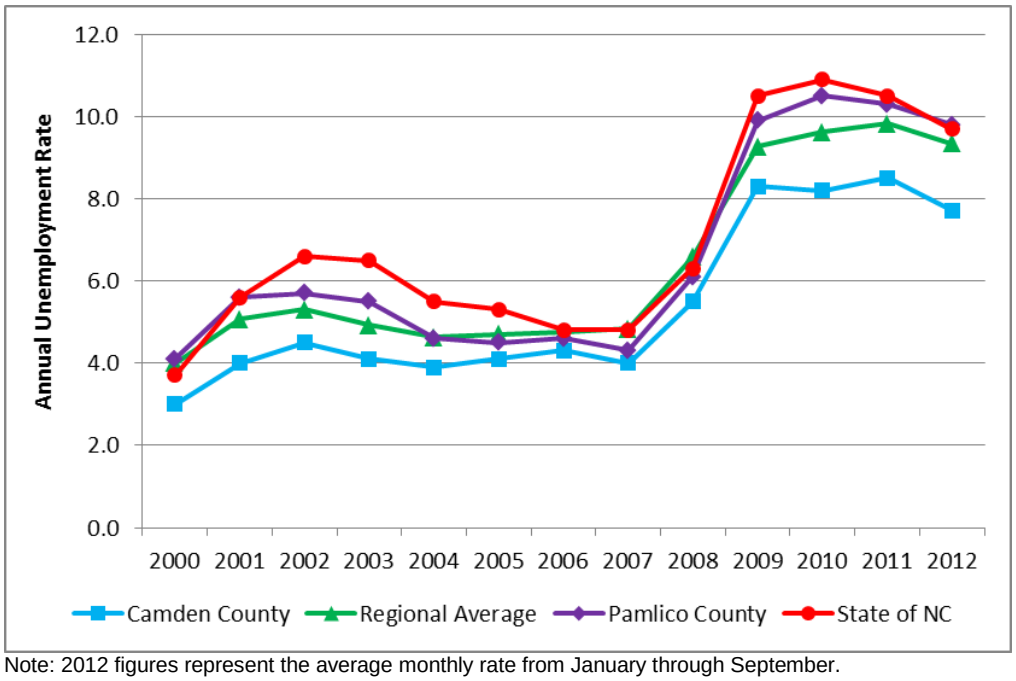
According to data provided by ICPTA, in 2012 system demand-response and subscription service ridership totaled 104,095 passenger trips and covered 914,629 vehicle miles. Approximately 39,000 trips (37%) were provided under Medicaid or other contracts, including 7,149 DSS Medicaid or WorkFirst trips, 17,546 Senior Services trips, and 10,938 Mental Health trips. There also were 811 trips to parks and recreation sites and 2,247 trips to vocational workshops or the equivalent. Just over 13,500 trips involved mobility-impaired passengers (17).

Unemployment

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

- Beginning with 2008 data, the unemployment rate began to rise sharply in all four jurisdictions. Unemployment stopped increasing in Camden County in 2010 and finally decreased over the first nine months of 2012. In Pamlico County and NC unemployment began to decrease in 2011, but region-wide the unemployment rate did not begin to decrease until 2012.

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* (18).

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 Camden 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 26 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 Camden County the poverty rate fell from one period to the next over the entire interval cited, falling 65% overall.
- In the seven-county ARHS region, the poverty rate fell each decade from 1970 through 2000. By 2007-2011 the rate was up again, by 7% region-wide.
- In Pamlico County, the poverty rate fell by 66% between 1970 and 2006-2010 before rising again in 2007-2011.
- Statewide, the poverty rate fell every decade through 2000 before rising in both 2006-2010 and 2007-2011.
- Camden County had the lowest poverty rate among the four jurisdictions in 2000 and later.

Table 26. 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
Camden County	25.4	16.7	16.1	10.1	9.3	8.8
Regional Average	31.8	21.5	18.1	16.5	16.4	17.5
Pamlico County	31.2	20.6	18.9	15.3	10.7	12.2
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 27 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 several times the poverty rate among whites.
- The largest average racial disparity in poverty was in Camden County, where the poverty rate for blacks was, over the period cited, an average of 3.7 times the rate for whites. Comparable difference factors were 3.0 region-wide, 2.8 in Pamlico County and 2.4 statewide.

Table 27. 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
Camden County	10.1	7.5	21.3	9.3	6.6	24.4	8.8	5.7	25.4
Regional Average	16.5	8.9	29.7	16.4	9.9	29.2	17.5	10.7	30.6
Pamlico County	15.3	11.0	29.4	10.7	7.4	25.6	12.2	10.3	21.5
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 28 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. The greatest average variance—64%—occurred in Pamlico County. The remaining average variances were 21% in Camden County, 47% region-wide, and 35% in NC.

Table 28. 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
Camden County	10.1	12.7	20.3	9.3	11.7	10.4	8.8	9.7	12.8
Regional Average	16.5	22.2	19.2	16.4	24.3	12.7	17.5	27.7	12.6
Pamlico County	15.3	24.2	13.4	10.7	17.1	9.9	12.2	21.2	9.2
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 29 shows the percent of students *enrolled* to receive free or reduced-price lunch.

- The percentage of students in Camden County enrolled for free or reduced-price school lunch averaged 28.7% over the period cited, with the highest percentage (31.7%) in SY2009-10. The Camden County figure was the lowest among the four jurisdictions in all eight years cited.

Table 29. 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
Camden County	27.6	28.8	28.8	25.8	28.0	27.4	31.7	31.2
Regional Average	54.8	54.2	54.7	53.0	52.0	52.4	55.9	54.8
Pamlico County	54.9	56.0	52.2	52.6	58.8	53.1	62.0	64.1
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 30 presents data on the *number* of students *eligible for* free and reduced-price lunch.

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

Table 30. 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
Camden County	442	476	500	494	401	498	576	591
Regional Average	1,580	1,614	1,394	1,503	1,326	1,408	1,565	1,566
Pamlico County	1,089	885	805	878	1,010	783	1,027	1,072
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 Camden 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 (19).

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 (20).

Table 31 presents state-catalogued data on the food and nutrition services caseloads and individuals over a six-year period for Camden County, the region (as an average) and the state of NC. All the data represent totals for September in the years noted (the end of each Federal fiscal year).

- In all jurisdictions cited the caseloads and numbers of individuals served increased from 2007 through 2011 before falling in 2012.

Table 31. Food and Nutrition Services, Caseload and Individuals (September of 2007-2012)

Location	2007		2008		2009		2010		2011		2012	
	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals
Camden County	242	499	297	632	348	799	455	999	626	1,398	513	517
Regional Average	1,037	2,259	1,141	2,490	1,343	2,903	1,566	3,316	2,523	5,329	1,820	1,838
State of NC	402,268	908,025	444,857	1,011,226	559,703	1,249,226	673,366	1,476,207	832,413	1,797,003	706,690	716,345

Source: NC DHHS, Division of Social Services, Program Statistics and Reviews, Food and Nutrition Services, FNS Caseload Statistics; http://www.ncdhhs.gov/dss/stats/fsp.htm

Table 32 presents state-catalogued data on the WorkFirst caseloads and individuals over the same six year period for the same three jurisdictions cited above.

- In Camden County, caseload was highest in 2009 (27) and the count of total individuals was highest in 2008 (49).
- Region-wide, caseload and total individuals were highest in 2008.
- Statewide, caseload was highest in 2009, but total individuals were highest in 2010.

Table 32. WorkFirst Services, Caseload and Individuals (September of 2007-2012)

Location	2007		2008		2009		2010		2011		2012	
	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals	Total Caseload	Total Individuals
Camden County	22	39	24	49	27	16	23	41	19	37	14	22
Regional Average	64	122	69	132	64	40	56	100	55	105	49	86
State of NC	25,085	47,624	24,845	48,009	28,192	16,726	24,978	49,194	23,590	46,943	22,090	43,804

Source: NC DHHS, Division of Social Services, Program Statistics and Reviews, Food and Nutrition Services, WorkFirst Caseload Statistics; http://www.ncdhhs.gov/dss/stats/wf.htm.

HOUSING

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

- There was an average 10.5% vacant housing in Camden County over both time periods cited, the lowest figure among the comparator jurisdictions.
- Of the occupied housing units in Camden County, approximately 83% were owner occupied; 17% were renter occupied.
- The highest proportion of mobile homes in both periods (~32%) was in Pamlico County.
- In 2000 the median monthly mortgage cost was highest statewide and lowest region-wide; in 2006-2010 the highest median monthly mortgage cost was in Camden County and the lowest mortgage cost was in Pamlico County.
- Median monthly mortgage cost in Camden County increased by 72% between 2000 and 2006-2010.
- In 2000 the highest median gross monthly cost for rent was the state average; in 2006-2010 the highest rent was in Camden County.
- Median gross monthly rent cost in Camden County increased by 61% 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.	%
Camden County	2,973	311	10.5	2,662	89.5	2,219	83.4	$902	443	16.6	$514	499	16.8
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
Pamlico County	6,781	1,603	23.6	5,178	76.4	4,256	82.2	$911	922	17.8	$466	2,117	31.2
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.	%
Camden County	4,104	429	10.5	3,675	89.5	3,019	82.1	$1,552	656	17.9	$830	531	13.4
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
Pamlico County	7,534	2,044	27.1	5,490	72.9	4,337	79.0	$1,207	1,153	21.0	$642	2,486	33.4
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 Camden County, but the percentage decreased 7% from one period to the next.
- In 2005-2009 and 2006-2010, the percentage of *mortgaged* housing units costing more than 30% of household income was highest in the region as a whole.
- Between the periods cited the percentage of Camden County housing units spending more than 30% of household income on a mortgage increased 15%.

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	
		#	%		#	%		#	%		#	%
Camden County	652	333	51.1	512	242	47.3	1,927	535	27.8	1,895	604	31.9
Regional Average	1,876	844	45.0	1,836	840	45.8	3,303	1,299	39.3	3,397	1,360	40.0
Pamlico County	1,093	391	35.8	1,003	337	33.6	2,343	902	38.5	2,507	993	39.6
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, 30% of housing in Camden County was classified as "unaffordable", compared to 29% in Pamlico County, and averages of 35% region-wide and 32% statewide (21). 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 Camden County to assist residents in accessing HUD services. The nearest office is in Elizabeth City (Pasquotank County) (22). At the time this report was developed, there were no HUD-subsidized single-family homes available in Camden County (23). A search on the HUD affordable apartment website identified one low-rent apartment facility: an ARC facility in Shiloh for developmentally disabled persons (24).

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 Camden County (25).

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 were available only for Pasquotank County, which reported 43 total homeless persons in 2011 and 36 in 2012. (26).

HOUSEHOLDS

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

- The average number of persons per household in Pamlico County—2.27—was the lowest among the jurisdictions being compared. The figure for Camden County—2.71—was the highest.
- The percent of one-person households in Pamlico County—27.8%—was the highest among all four jurisdictions. The figure for Camden County—19.1%—was the lowest.
- The percent of one-person households where the resident was age 65 or older in Pamlico County—44.7%—was the highest among the jurisdictions being compared. The figure for Camden County—43.7%—was the second-highest.

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
Camden County	3,675	2.71	702	19.1	307	43.7
Regional Average	7,456	2.52	1,886	24.8	805	43.1
Pamlico County	5,490	2.27	1,526	27.8	682	44.7
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.

- The percentage of minor children not living with both parents was highest in Pamlico County and lowest in Camden County in both periods cited.
- In Camden County the percent of children under the age of 18 *not* living with both parents increased by 9% between 2000 and 2010. Statewide the increase was 14%.
- In Camden County the percent of *female* family householders with children under the age of 18 decreased 5% between 2000 and 2010. Over the same period, the percent of *male* family householders with children under the age of 18 decreased 13%. Statewide between 2000 and 2010 there was a decrease of 4% in the percent of female family householders with minor children, and a 5% increase in the percent of male family householders with minor children.

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	%
Camden County	2,024	841	106	12.6	56	6.7	1,685	1,226	72.8	459	27.2
Regional Average	4,580	2,016	527	24.0	123	6.2	4,147	2,441	61.1	1,706	38.9
Pamlico County	3,718	1,307	277	21.2	83	6.4	2,726	1,656	60.7	1,070	39.3
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	%
Camden County	2,834	1,417	170	12.0	82	5.8	2,557	1,798	70.3	759	29.7
Regional Average	5,258	2,589	570	20.8	160	6.1	4,396	2,418	55.7	1,978	44.3
Pamlico County	3,724	1,427	286	20.0	113	7.9	2,354	1,257	53.4	1,097	46.6
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 Camden County for the period cited, an estimated 15.6% 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 Pamlico County; the percentage was lowest in Camden County.

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. #	%
Camden County	179	28	15.6
Regional Average	450	225	47.5
Pamlico County	502	362	72.1
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 (27).

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 five licensed child care centers in Camden County at the time of the report, three (60%) were five-star facilities. There were no four star child care centers in the county.
- Of the three licensed family child care homes in Camden County, there were no five-star or four-star facilities; two family child care homes were rated three stars.

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

Type of Facility	Number
Child Care Centers (5)	
Five-star	3
Four-star	0
Three-star	1
Two-star	0
One-star	1
GS 110-106 (Church-affiliated)	0
Temporary	0
Family Child Care Homes (3)	
Five-star	0
Four-star	0
Three-star	2
Two-star	1
One-star	0

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
Camden County	118	104	130	151	12	12	11	9
Regional Average	347	355	351	428	45	45	45	41
Pamlico County	158	186	174	141	37	33	43	45
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.

- The number of children in Camden County that received a WorkFirst child care subsidy increased between 2007 and 2008, before decreasing in each of the next two years.
- 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
Camden County	33	49	34	28
Regional Average	110	118	91	77
Pamlico County	70	68	46	33
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.

EDUCATION

Higher Education

There are no four-year colleges or universities physically located in Camden County, but there are several institutions of higher education in the ARHS region accessible to Camden County residents.

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 (28).

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 R-CCC 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 R-CCC Campus (29).

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 (30).

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* (31).

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 (32).

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 (33).

Primary and Secondary Education

Schools and Enrollment

Tables 41 through 49 focus on data pertaining to primary and secondary (mostly public) schools in Camden County (as well as its comparator jurisdictions where appropriate).

- There are five public schools in the Camden County school district: one elementary school, two middle schools, and two secondary schools. There are no private schools in the county (Table 41).

Table 41. 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
Camden County Schools	1	2	2	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.

- Grandy Primary School in Camden was the largest school in the district, with a SY2011-12 enrollment of 558. Camden Intermediate School in Camden was the second largest school in the district, with a SY2011-12 enrollment of 439. (Table 42).

Table 42. Camden County Public Schools (November, 2012)

School	Location	School Type/Calendar	Grade Range	Enrollment SY2011-12
CamTech High	Camden	Regular School, Traditional Calender	9-12	161
Camden County High	Camden	Regular School, Traditional Calender	9-12	411
Camden Intermediate	Camden	Regular School, Traditional Calender	4-6	439
Camden Middle	Camden	Regular School, Traditional Calender	7-8	322
Grandy Primary	Camden	Regular School, Traditional Calender	K-3	558

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 Camden County increased almost every year over the period cited. Across the ARHS region, there were continuous enrollment declines from SY2007-08 through SY2010-11 (Table 43).

Table 43. 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
Camden County Schools	1,883	1,941	1,958	1,959	1,955	1,986	2,013
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 44 presents data on several measures of educational attainment.

- Among the four jurisdictions being compared, in a 2006-2010 US Census Bureau estimate, Camden County had the highest percentage of high school graduates (88.4%) 6% higher than the state average and 8% higher than the regional average.
- In the same period, Camden County had the second highest percentage of residents with a bachelor's degree or higher, but still 27% lower than the state average.
- According to SY2011-12 End of Grade (EOG) Test results, the percentages of third graders and eighth graders in Camden County public schools demonstrating grade-appropriate proficiency in reading and math were the highest among the jurisdictions being compared.
- The average SAT score for Camden County students was 999, with a participation rate of 73%.

Table 44. 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
Camden County	88.4	19.0	87.9	89.2	83.3	92.3	73%	999
Regional Average	81.8	15.6	68.4	80.2	70.2	87.6	60%	956
Pamlico County	82.7	17.5	67.9	81.5	64.8	82.4	54%	995
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 45 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 Camden County schools was 9% lower than the average for the ARHS region, but 4% higher than the average for the state as a whole.
- In all jurisdictions, the state contributed the highest proportion to the total per-pupil expenditure: 79% in Camden County schools, an average of 69% region-wide, and an average of 64% statewide.

Table 45. Educational Expenditures (SY2011-12)

Location	Per-Pupil Expenditure			
	Local	State	Federal	Total
Camden County Schools	$1,018	$6,965	$794	$8,777
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 46 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 Camden County schools fluctuated over the period cited in the table, but was highest (4.85) in SY2005-06 and lowest (2.61) in SY2006-07.

Table 46. 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
Camden County Schools	3.83	4.85	2.61	4.30	2.83	3.44	3.26
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 47.

- The overall graduation rates for all student categories shown in the table were highest for students of Camden County Schools.

Table 47. 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
Camden County Schools	145	124	85.5	81	66	81.5	64	58	90.6	35	29	82.9
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 acts 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 48 summarizes crime and violence catalogued by the NC Department of Public Instruction for schools in Camden County, the ARHS region, Pamlico County, and the state overall.

- The number and rate of acts of school crime and violence in Camden County Schools were low over the period cited and fell to zero in SY2010-2011.

Table 48. 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
Camden County Schools	9	5.4	8	4.4	6	3.2	9	4.7	4	2.1	4	2.1	0	0.0
Regional Average	12	4.4	14	4.8	17	5.5	21	7.6	19	6.0	14	5.0	16	4.6
Pamlico County Schools	8	5.0	44	28.0	33	21.9	20	14.3	12	8.6	7	5.1	6	4.3
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 49 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 49. 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
Camden County Schools	99	1	0	101	4	1	100	3	0
Regional Average	570	10	0	584	8	1	570	6	0
Pamlico County Schools	451	6	0	396	0	0	286	1	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 plus burglary, larceny, arson, and motor vehicle theft.

Table 50 presents the rates for index crime, violent crime, and property crime for the period from 2007 through 2011.

- The overall index crime rate in Camden County was the lowest among the jurisdictions being compared throughout the period cited.
- The rates of violent crime and property crime in Camden County also were the lowest in all years cited.
- The largest component of index crime in all four jurisdictions was property crime.

Table 50. 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
Camden County	1,082.5	86.6	995.9	1,140.3	105.6	1,034.7	826.4	62.0	764.5	929.7	62.0	867.7	1,315.9	70.3	1,245.6
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
Pamlico County	*	*	*	2,582.8	190.4	2,392.4	2,527.2	274.3	2,252.9	2,320.3	166.9	2,153.4	2,296.5	220.7	2,075.8
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 51 presents detail on index crime committed in Camden 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

- The predominant violent crime reported in every year cited was aggravated assault.
- Larceny was the predominant property crime in every year except 2006 when burglary was the predominant property crime.

Table 51. Types of Crimes Reported in Camden County (2006-2011)

Type of Crime	Number of Crimes					
	2006	2007	2008	2009	2010	2011
Violent Crime						
Murder	2	0	0	0	0	0
Rape	2	3	2	0	0	0
Robbery	1	0	1	1	2	0
Aggravated Assault	5	5	7	5	4	7
Property Crime						
Burglary	33	23	30	24	28	48
Larceny	29	69	65	48	55	75
Motor VehicleTheft	5	0	3	2	1	1
Total Index Crimes	77	100	108	80	90	131

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 52 summarizes data on other types of criminal activities.

- As of January 2, 2013 there were 14 registered sex offenders in Camden County, compared to 22 in Pamlico County. The regional average was 32.
- According to the NC Governor's Crime Commission, in 2012 there were no gangs in Camden County, and none in Pamlico County. The same year, the Crime Commission sited a total of 963 gangs statewide.
- According to the NC State Bureau of Investigation, there were no methamphetamine drug lab busts in Camden County during the period from 2005 through 2011. Over the same period, 1,664 meth lab busts were recorded statewide.

Table 52. 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
Camden County	14	0	0	0	0	0	0	0	0
Regional Average	32	2	<1	<1	<1	<1	<1	<1	<1
Pamlico County	22	0	0	0	1	0	0	0	0
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 53 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 Camden County was unchanged, but the *rate* of *undisciplined* youth decreased 22%.
- Over the same period the *number* of complaints of *delinquent* youth in Camden County was unchanged, but the *rate* of *delinquent* youth decreased 25%.
- No Camden County juveniles were sent to secure detention in 2010; one was sent in 2011.
- No Camden County juveniles were sent to youth development centers or transferred to Superior Court in either 2010 or 2011.

Table 53. 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
Camden County	3	3	8	8	2.15	1.68	7.14	5.37	0	1	0	0	0	0
Regional Average	10	9	83	66	2.92	2.89	29.06	24.99	9	10	0	0	0	0
Pamlico County	4	3	31	28	2.64	1.86	24.8	21.18	5	3	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 54 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 Camden and Pamlico 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 54. 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
Camden County	n/a	n/a	n/a	n/a	n/a	49	18
Regional Average	77	38	39	17	58	66	51
Pamlico 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 55 presents details on the types of sexual assaults reported in FY2010-11.

- The largest proportion of sexual assault complaints in Camden County (83.3%) was by adult survivors of child sexual assault; the next largest proportion (11.1%) was for adult rape.
- 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 55. 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.	%
Camden County	18	2	11.1	0	0.0	15	83.3	1	5.6	0	0.0	0	0.0	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
Pamlico 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 56 details the types of offenders involved in sexual assaults in FY2010-11.

- In Camden County the most common offender in sexual assault complaints was a relative (61.1%), followed by an acquaintance (22.2%).
- 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 56. 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.	%
Camden County	18	11	61.1	4	22.2	1	5.6	2	11.1	0	0.0
Regional Average	49	28	51.4	14	33.1	5	8.7	2	4.9	1	1.9
Pamlico 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 57 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 57. 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
Camden County	74	70	82	77	49	135	97
Regional Average	177	145	180	134	163	252	216
Pamlico County	87	50	105	301	93	86	50
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 58 provides details on the services received by domestic violence complainants in FY2010-11.

- The 97 domestic violence clients in Camden County received a total of 1,402 services.
- The largest numbers of services received by domestic violence complainants in Camden County were advocacy (616) followed by information (290), and referral (221).

- The largest numbers of services received by complainants region-wide were for advocacy, information and counseling.
- The local domestic violence shelter serving Camden County was full on 114 days and the shelter in Pamlico County was never full.

Table 58. 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	
Camden County	97	1,402	290	616	221	38	210	0	27	0	114
Regional Average	216	3,302	731	1,236	441	72	606	1	214	1	102
Pamlico County	50	1,631	465	328	139	189	176	1	326	7	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

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 (34).

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.

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 59 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 Camden County fluctuated annually without a clear pattern. For the period cited, the highest number of findings was 57 in FY2010-11, and the lowest was 17 in FY2011-12. The average number of findings of child abuse, neglect or dependency per year throughout the period cited was 36.
- 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 six in FY2004-05 and FY2007-08 to a low of zero in FY2005-06, and averaged approximately three per year.

Table 59. Reports of Child Abuse and Neglect, Camden 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	42	28	44	36	30	35	57	17
No. Substantiated[1] Findings of Abuse and Neglect	0	0	0	1	0	0	0	0
No. Substantiated Findings of Abuse	0	0	0	0	0	0	0	0
No. Substantiated Findings of Neglect	6	0	2	5	3	1	5	1
Services Recommended	0	0	0	0	0	0	6	1
No. Unsubstantiated Findings	36	27	27	29	27	22	38	11
Services Not Recommended	0	1	15	1	0	12	8	4

[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.

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 60 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 Camden County the proportion of reports screened in for further investigation and services was 100% in 2009 and 86% in 2011.

Table 60. 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
Camden County	4	4	0	0	0	0	0	0	0	0	0
Regional Average	31	16	14	4	6	1	1	1	0	0	0
Pamlico County	27	9	18	1	9	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
Camden County	7	6	1	0	0	0	0	0	0	0	0
Regional Average	35	21	14	3	7	1	1	1	0	0	0
Pamlico County	11	4	7	4	4	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 61 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 Camden County population overall (age 0-64) without health insurance decreased each biennium.
- In all jurisdictions in every biennium 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 Camden County decreased from 10.2% in 2006-2007 to 6.8% in 2010-2011, a 33% improvement.

Table 61. 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
Camden County	10.2	22.0	18.6	9.1	21.5	17.6	6.8	19.5	15.6
Regional Average	11.6	24.4	20.4	10.2	24.2	20.1	7.8	21.4	17.6
Pamlico County	7.5	23.3	18.8	10.0	23.5	20.3	7.9	20.2	17.2
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 (35).

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 (36). In NC, the maximum income limit for participation in the NCHC program is 200% of the Federal Poverty Guideline.

Table 62 presents enrollment figures for NCHC for FY2008 through 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 Camden County the number of children eligible for NCHC fluctuated from year to year during the period shown. Region-wide the average number was static, but in NC as a whole the number increased every year.
- In Camden County the *percent* of eligible children enrolled in Health Choice increased between FY2008 and FY2009, and decreased between FY2009 and FY2010. In FY2010 approximately 55% of the eligible children were enrolled in Health Choice.

Table 62. 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
Camden County	137	86	62.8	118	83	70.3	141	77	54.6
Regional Average	283	207	63.7	284	218	70.2	282	216	72.9
Pamlico County	185	135	73.0	180	142	78.9	165	158	95.8
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 63 summarizes data on Medicaid eligibility and expenditures for the period from FY2008 through FY2010.

- While the number of Camden County residents eligible for Medicaid increased from one year to the next throughout the period cited, the percent eligible was static at around 11%.
- The expenditure/cost per adult enrollee in Camden County fell from FY2008 to FY2009 and decreased again in FY2010.
- Camden County had the lowest proportion of Medicaid-eligible residents of the four jurisdictions throughout the period cited, averaging 10.7%. The average statewide was approximately 16%.

Table 63. 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
Camden County	950	10.0	$6,571	1,049	11.0	$5,780	1,086	11.0	$5,497
Regional Average	3,286	17.1	$6,597	3,441	17.7	$6,673	3,543	17.9	$6,389
Pamlico County	2,108	16.0	$8,615	2,149	17.0	$8,941	2,356	18.0	$8,249
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.

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 (37).

Table 64 presents a four-year summary of the participation of eligible children in the NC HealthCheck program.

- The participation ratio for Camden County children decreased every year and a total of 40% between FY2007-08 and FY2010-11 even as the number of eligible children due initial or periodic Health Check EPSDT services increased 80% during the same period. Similar phenomena were observed in the other three jurisdictions as well.
- The Health Check participation ratio in Camden County was the highest among the four jurisdictions in FY2007-08, but the second-lowest in the remaining periods.

Table 64. 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
Camden County	659	353	84.7	705	379	76.5	767	622	52.9	819	636	50.6
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
Pamlico County	1,382	720	82.4	1,413	747	96.9	1,487	1,278	60.6	1,492	1,269	55.2
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 (38).

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; Camden 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 65 summarizes CCNC/CA enrollment data for the period from 2007-2010.

- The percent of Medicaid eligible persons in Camden County enrolled in CCNC/CA decreased 4% overall between 2007 and 2010; the four-year average was 57%. Meanwhile, the number of county residents enrolled in Medicaid increased by 17% 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 65. 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
Camden County	932	55	950	58	1,049	60	1,086	53
Regional Average	3,210	61	3,286	59	3,441	63	3,543	61
Pamlico County	2,027	60	2,108	58	2,149	60	2,356	65
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 66 summarizes dual Medicare/Medicaid enrollment data for the period from 2007-2010.

- The highest percentage of dual enrollees every year was in Pamlico County; NC as a whole had the lowest percentage each year. The percentage for Camden County was the lowest or second-lowest each year.

Table 66. Medicare/Medicaid Dual Enrollment (2007-2010)

Location	Percent of Eligibles Dually Enrolled			
	2007	2008	2009	2010
Camden County	16.6	16.5	15.2	14.2
Regional Average	19.4	19.0	18.0	17.4
Pamlico County	21.7	20.8	19.4	17.7
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 67 presents those data (which for simplicity's sake will be referred to simply as the "ratio") for Camden County, Pamlico 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.

- The Camden County ratios for all health professionals were the lowest among the five jurisdictions being compared for all categories of health professionals in all years cited.
- Camden County ratios for physicians and primary care physicians remained the same between 2009 and 2011, but the ratio for registered nurses worsened over the same period.
- There were no dentists of pharmacists in Camden County in any of the years cited.

Table 67. 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
Camden County	1.0	1.0	0.0	25.9	0.0	1.0	1.0	0.0	18.0	0.0	1.0	1.0	0.0	18.1	0.0
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
Pamlico County	4.7	3.9	3.1	40.5	4.6	4.6	3.8	3.8	34.2	5.3	6.1	4.5	3.8	38.6	6.1
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 there were no dentists in Camden County, and since the health professional ratio for dentists in the Albemarle region is low to begin with, accessing dental care may be a tremendous problem for Medicaid enrollees. Table 68 lists dental practices in the Albemarle Region (i.e., northeastern NC and southeastern VA) that accept Medicaid and/or NC Health Choice clients. One of these practices was in Camden County, which cannot be reconciled with the "no dentists" data in the table above. 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 68. 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 69 lists the number of active health professionals in Camden County and the ARHS region, by specialty, for 2011:

- The only medical specialists represented in Camden County in 2011 were family practitioner (1), registered nurse (18), licensed practical nurse (5), occupational therapist (2), and physical therapist (1).
- At the regional level there were no general practitioners and only one podiatrist listed in 2011.

Table 69. Number of Active Health Professionals, by Specialty (2011)

Category of Professionals	Camden County	Regional Total
Physicians		
Primary Care Physicians	1	64
Family Practice	1	23
General Practice	0	0
Internal Medicine	0	21
Obstetrics/Gynecology	0	11
Pediatrics	0	9
Other Specialities	0	96
Dentists and Dental Hygienists		
Dentists	0	26
Dental Hygienists	0	29
Nurses		
Registered Nurses	18	823
Nurse Practitioners	0	28
Certified Nurse Midwives	0	6
Licensed Practical Nurses	5	284
Other Health Professionals		
Chiropractors	0	10
Occupational Therapists	2	22
Occupational Therapy Assistants	0	15
Optometrists	0	6
Pharmacists	0	67
Physical Therapists	1	36
Physical Therapy Assistants	0	41
Physician Assistants	0	33
Podiatrists	0	1
Practicing Psychologists	0	12
Psychological Assistants	0	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 70 lists the number of general hospital beds in the four jurisdictions being included in this report. There is no hospital in either Camden County or Pamlico County.

Table 70. Number of General Hospital Beds[1] (2004-2010)

Location	2004	2005	2006	2007	2008	2009	2010
Perquimans County	0	0	0	0	0	0	0
Regional Average	37	34	34	34	34	34	34
Pamlico 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.

Other Hospitals

Table 71 lists the eight hospitals in northeastern NC that serve residents of Camden County. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

Table 71. 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 Camden County also seek medical services in southeastern VA, primarily in the area referred to as the *Tidewater Region*. Table 72 lists hospitals in the cities in this region.

Table 72. 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.

Since there is no hospital in Camden County, other facilities in the region see all Camden County residents who need hospital care.

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.

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 Camden County residents who were admitted to the emergency departments of Vidant Bertie, Vidant Chowan, Vidant Roanoke Chowan and Albemarle Hospitals in recent years.

Emergency Department Admission Demographics

While the majority of Camden County residents who need hospital services visit Albemarle Hospital, they do occasionally visit the other three nearest hospitals in the region as well. Table 73 summarizes the total of ED visits by Camden County residents at each of those four hospitals for the period FY2010-FY2012.

Table 73. Emergency Department Admissions, Camden County Residents, by Hospital (FY2010-FY2012)

Hospital	Number of ED Admissions		
	2010	2011	2012
Vidant Bertie Hospital	4	1	0
Vidant Chowan Hospital	21	15	19
Vidant Roanoke-Chowan Hospital	6	3	8
Albemarle Hospital	2,361	2,912	3,350
Total No. ED Visits by Camden County Residents	2,392	2,931	3,377

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital, and Albemarle Health.

Residence (Table 74)

- Since very few Camden County residents visit the EDs of Vidant Bertie, Vidant Chowan or Vidant Roanoke-Chowan Hospitals (see above), the Camden County component is a small fraction of total ED traffic in those hospitals. The data below refers instead to the ED of Albemarle Hospital only.
- Over the three-year period cited 8.4% of all Emergency Department admissions of ARHS Region patients at Albemarle Hospital were residents of Camden County.
- The largest proportion of Camden County residents who were admitted to the Albemarle Hospital ED in each year cited (three-year average of 4.6% of all Albemarle Hospital ED admissions of ARHS region residents) were residents of the Town of Camden.

Table 74. Percent ED Admissions by Patient Residence, Camden County Residents, Albemarle Hospital (FY2010-FY2012)

Location	Percent of ED Admissions		
	2010	2011	2012
Camden	4.6	4.7	4.6
Shiloh	1.1	1.4	1.2
South Mills	2.7	2.3	2.7
Total Camden County Patients	8.4	8.4	8.5
Total No. ED Visits by ARHS Region Residents	27,939	34,737	39,285

Source: Albemarle Health.

Age (Table 75)

- The largest proportion of Camden County residents who were admitted to the Albemarle Hospital ED in each year cited were adults between the ages of 18 and 64. The pediatric population (under the age of 18) composed the second largest proportion.

Table 75. Percent ED Admissions by Patient Age, Camden County Residents Albemarle Hospital (FY2010-FY2012)

Age Group	Percent of ED Admissions		
	2010	2011	2012
Adult	5.4	5.4	5.4
Pediatric	2.1	2.1	2.1
Senior	0.9	0.9	1.0
Total Camden County Patients	8.4	8.4	8.5
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 76)

- Whites composed the largest proportion of Camden County residents admitted to the Albemarle Hospital ED; whites from Camden County composed an annual average of 6.4% of all ED admissions of ARHS residents at Albemarle Hospital over the period cited.
- Blacks composed the second-largest proportion of Camden County residents admitted to the Albemarle Hospital ED. Blacks from Camden County composed an annual average of 1.9% of all ED admissions of ARHS residents at Albemarle Hospital over the period cited.

Table 76. Percent ED Admissions by Patient Race, Camden County Residents Albemarle Hospital (FY2010-FY2012)

Race/Ethnicity	Percent of ED Admissions		
	2010	2011	2012
Asian	<0.1	<0.1	<0.1
Black	2.0	1.9	1.8
Hispanic	<0.1	<0.1	<0.1
Native American	<0.1	<0.1	<0.1
Native Hawaiian/Pacific Islander	<0.1	<0.1	<0.1
Other	<0.1	<0.1	<0.1
Unknown	<0.1	<0.1	<0.1
White	6.3	6.3	6.5
Total Camden County Patients	8.4	8.4	8.5
Total No. ED Visits by ARHS Region Residents	27,939	34,737	39,285

Source: Albemarle Health.

Payer (Table 77)

- Commercial/Managed Care/Other insurer was the predominant primary payer among Camden County residents who were admitted to the Albemarle Hospital ED over the period cited, averaging 2.4% of all ED visits by ARHS region residents annually.
- Medicaid was the second-most frequent primary payer among Camden County admissions to the Albemarle Hospital ED, averaging 1.9% of all Albemarle region resident visits annually.
- Self-pay admissions composed the third-most frequent payer group among Camden County ER patients at Albemarle Hospital, averaging 1.7% of all visits by ARHS region residents annually.

Table 77. Percent ED Admissions by Payer Group, Camden County Residents Albemarle Hospital (FY2010-FY2012)

Payer Group	Percent of ED Admissions		
	2010	2011	2012
CHAMPUS, VA or other Military	1.3	1.2	1.2
Commercial/Managed Care/Other	2.4	2.3	2.4
Medicaid	1.6	2.0	2.0
Medicare	1.2	1.2	1.4
Self-pay	1.9	1.7	1.5
Workman's Compensation	<0.1	<0.1	<0.1
Total Camden County Patients	8.4	8.4	8.5
Total No. ED Visits by ARHS 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.

Camden County Emergency Medical Services

Emergency medical services in Camden County are provided by Pasquotank-Camden Emergency Medical Service, a paramedic-level EMS organization serving both Pasquotank and Camden counties. Pasquotank-Camden EMS was founded in 1967. It is funded through Pasquotank County by fees charged to users, and by a contribution from Camden County and Albemarle Hospital. Pasquotank-Camden EMS is credentialed by the NC Office of Emergency Medical Services and employs Paramedics, EMT-Intermediates, and Emergency Medical Technicians.

Pasquotank-Camden EMS serves an area of 468 square miles with a population of over 50,000 people; it operates 24 hours a day, 7 days a week. Pasquotank County Rescue Squad, a volunteer service, supports the EMS System by providing supplemental coverage on an as scheduled basis.

Pasquotank-Camden EMS provides daily staffing for three ambulances 24 hours a day with an additional 10 am to 10 pm peak-demand crew to staff ambulances to answer 9-1-1 dispatched calls, provide transports, and cover standby requests and public events. A non-emergency ambulance crew is available from 8 am to 5 pm, Monday through Friday. Each primary advanced life support ambulance is staffed by two EMT's, one of which must have the minimum certification level of EMT-Paramedic. Each of these 'teams' provides continuous, quality pre-hospital emergency care to the residents of the two counties.

Over the past several years, Pasquotank-Camden EMS has moved ambulances to outlying substations. Currently the following EMS Station and Substations provide EMS coverage to the residents of Pasquotank and Camden Counties:

- EMS Station 50 - Main EMS Station and Administrative offices, Located next to Albemarle Hospital (24 hr.)
- EMS Station 4 - Located in the Nixonton Volunteer Fire Department (24 hr.)
- EMS Station 12 - Locate in the Camden Volunteer Fire Department (10am - 10pm)

Pasquotank-Camden EMS utilizes first responders for coverage in the outlying areas to decrease response times. The service works in coordination with other various county and city agencies, fire, sheriff and police departments. Pasquotank-Camden EMS is served by two air medical helicopters: Nightingale Air Ambulance in Norfolk, VA, and EastCare Air Ambulance in Greenville, NC. It receives support as requested from the United States Coast Guard Air Station in Elizabeth City (39).

Table 78 summarizes Pasquotank-Camden EMS Ambulance Calls for FY2011 and FY2012.

Table 78. Pasquotank-Camden EMS Ambulance Calls Summary (FY2011 and FY2012)

Total Responses	FY2011	FY2012
Location		
Camden County	591	620
Blackwater	28	12
Elizabeth City	5,458	5,486
Pasquotank County	1,318	1,877
Nature of Call		
Advanced Life Support	2,882	3,282
Basic Life Support	2,552	2,652
Treatment / No Transport	74	98
Patient Refusal	1,217	1,233
Cancelled Enroute	311	358
Standby - Event	100	88
Standby - Fire	97	101
Mutual Aid	34	12
Miscellaneous	96	162
Total Responses	7,395	7,995

Source: Jerry Newell, Director, Pasquotank-Camden EMS. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, February 8, 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 (40).

Camden County Health Department

Services offered at the Camden County Health Department, physically located in Camden, NC, include: clinical services, WIC, health education and promotion, environmental health, preparedness and response, Albemarle Home Care, Albemarle Hospice, Inter-County Public Transportation 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 including 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

Referrals for individuals living with diabetes and their families are made to the comprehensive Diabetes Care Center located at the Pasquotank County Health Department. 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.

Inter-County Public Transportation Authority (ICPTA)

This regional public transportation system was described in an earlier section of this report.

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 79 summarizes the demographic profile of clients who patronized the Camden County Health Department in 2012 compared to comparable averages for all of Albemarle Regional Health Services.

- Children under the age of 18 composed 57% of all Camden County Health Department patients; ARHS-wide the comparable percentage was 31%.
- Persons ages 45-64 composed 11% of the health department patients in Camden County; ARHS-wide the comparable percentage was 19%.
- The largest proportion of Camden County Health Department patients—67%--were white. African Americans and whites each composed 47% of patients ARHS-wide.
- Females composed 61% of Camden County Health Department patients and 75% of ARHS patients.

Table 79. Demographic Profile of Patients, Camden County Health Department and ARHS: Age, Race and Sex (2012)

Demographic Parameter	Unduplicated Counts			
	Camden		Agency-Wide	
	Patients	Visits	Patients	Visits
Age				
0-17	682	932	4,531	7,546
18-24	135	226	2,539	6,093
25-34	107	206	2,317	5,427
35-44	82	126	1,437	2,797
45-54	66	89	1,476	2,636
55-64	66	84	1,265	1,898
65+	69	141	899	1,609
Total	1,207	1,804	14,464	28,006
Race				
American Indian/Alaskan Native	0	0	10	21
Asian	24	45	121	254
Black/African American	350	512	6,388	13,214
Native Hawaiian/Pacific Islander	2	3	14	31
Unknown	25	46	582	1,402
White	806	1,198	7,349	13,084
Total	1,207	1,804	14,464	28,006
Sex				
Female	739	1,196	10,077	21,094
Male	468	608	4,387	6,912
Total	1,207	1,804	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 80 summarizes the payer profile for services utilized by patients of the Camden 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 Camden County Health Department—40%--was the category including Medicaid only or some combination of Medicaid and another payer.
- The dental program had the highest percentage of Medicaid-pay clients, 72%.
- Patient pay only was the second largest proportion of all payers, 30%.
- Adult health was the program with the largest percentage of patient pay only clients, 78%.

Table 80. Payer Profile, Camden 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	130	259	3	0	4	90	0	8	11	116
Child Health	4	4	0	0	2	1	0	0	0	3
Dental	419	551	7	4	291	66	0	0	50	418
Family Planning	121	237	6	3	25	68	1	0	8	111
HealthCheck Child Health Physica	51	59	1	0	34	11	0	0	4	50
Immunization	533	619	6	1	68	98	31	27	213	444
Maternal	13	60	3	1	6	1	0	0	0	11
Pregnancy Tests	15	15	1	0	7	5	0	0	1	14
STD	26	29	0	0	3	12	0	0	0	15
Tuberculosis	5	7	0	0	0	2	0	0	0	2
TOTAL	1,317	1,840	27	9	440	354	32	35	287	1,184

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 (41).

The US Health Resources and Services Administration (HRSA) lists no FQHC in Camden County as of March 23, 2013, but did list two in the Albemarle Region of NC: Gateway Community Health Center (in Tyner and Gatesville, NC) and Colerain Primary Care (in Colerain, NC). The HRSA site listed several FQHCs in the Tidewater Area of VA (42).

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 (43):

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.

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.

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 84 summarizes the percent of visits by ZIP code; Table 85 summarizes the payers.

According to data in Table 81:

- 14% of Gateway Community Health Center patients lived in Chowan County
- 72% resided in Gates County
- 11% resided in Pasquotank County
- 3% resided in Perquimans County
- Gateway Community Health Center had no patients from Camden County in 2012.

Table 81. 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 82, the largest proportion of patients at Gateway Community Health Centers are self-pay (44%), followed by those covered by commercial insurance (31%).

Table 82. 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 Camden County Schools local education authority (LEA) employs the nurses in the district's schools (44).

Table 83 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 Camden County Schools for the two-year period cited was 633:1, below the recommended maximum of 750:1.

Table 83. Student to School Nurse Ratio (SY2009-10 and SY2010-11)

Location	Student to School Nurse Ratio	
	SY2009-2010	SY2010-2011
Camden County	630	635
Regional Average	713	712
Pamlico County	272	316
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/.

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 84 lists by name all facilities in Camden County.

Table 84. NC-Licensed Long-Term Care Facilities in Camden County (November, 2012)

Facility Type/Name	Location	# Beds SNF (ACH)[1]	Star Rating (If applicable)
Adult Care Homes/Homes for the Aged			
Needham Adult Care Home	Shiloh	24	4
Family Care Homes			
Needham Family Care Home	Shiloh	6	n/a
Nursing Homes/Homes for the Aged			
None			

[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 (45).

Table 85 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 were no nursing homes listed for Camden County.

Table 85. Number of Nursing Facility Beds (2005-2011)

Location	2005	2006	2007	2008	2009	2010	2011
Camden County	0	0	0	0	0	0	0
Regional Average	118	118	118	118	118	118	118
Pamlico County	96	96	96	96	96	96	96
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 (46).

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 (47).

- At the time this report was prepared there was one state-licensed adult care home in Camden County: Needham Adult Care Home (24 beds, four stars) located in Shiloh.
- In addition, there was one state-licensed family care home in Camden County: Needham Family Care Home (six beds) in Shiloh.

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 86 lists the home care, home health, and hospice providers in Camden 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 86. NC-Licensed Home Care, Home Health and Hospice Service Providers in Camden County
(As of March, 2013)

Provider Name	Location
Albemarle Home Care	Camden

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.

Table 87 presents a demographic profile of the clients of Albemarle Home Care – Home Health Division for FY2011-12.

- Approximately 7% of the agency's home health clients lived in Camden County.

Table 87. 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 (48).

Adult day health services are similar programs to adult data care programs 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 (49). There is one adult day health facility in the Albemarle Region: DayBreak, located in Elizabeth City (Pasquotank County).

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 (50).

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 (51).

At the time this report was prepared, the LME for Camden 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 88 (on the following page) lists ECBH network providers serving Camden 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 there were no network providers physically located in Camden County.

Table 88. East Carolina Behavioral Health Network Providers Serving Camden 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 one NC-licensed mental health *facility* (not service provider) physically located in Camden County, as shown in Table 89. This facility offers supervised living for developmentally disabled adults.

Table 89. NC-Licensed Mental Health Facilities in Camden County (G.S. 122C) (November, 2012)

Operator/Name of Facility	Location	Category	Capacity
Life, Inc. Wickham Road Facility	Shiloh	Supervised living, developmentally disabled adult	6

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 90 lists other healthcare facilities in the Albemarle Region that are licensed by the state of NC. Note that none was physically located in Camden 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 90. 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 91 lists dialysis centers in the Albemarle Region, none of which was physically located in Camden County.

Table 91. 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 Camden County, but Internet searches identified urgent care centers in Elizabeth City, NC and the Tidewater region of VA. Camden County residents with urgent (and evening, weekend and holiday) health issues are most likely to report to Albemarle Hospital, Vidant Chowan Hospital, or another area hospital.

Other Camden County Healthcare Practitioners/Practices

Table 92 presents a partial list of the healthcare practitioners and practices in Camden County that are *not* affiliated with one of the region's hospitals. This list was developed from searches of various Internet sites and checked against current telephone directories. There is no way to verify the absolute currency of this list.

Table 92. Healthcare Practitioners/Practices in Camden County (As of March 28, 2013)

Provider/Practice Name	Location	Specialty
Albemarle Mental Health Center	Shiloh	Mental Health
Boulerice, Tamely D., FNP	Camden	Family Medicine
Creech, Michelle E.	Camden	Speech Pathology
Goodman, Martha M., LPC	Camden	Counseling
Olsefski, Lynn M., LCSW	Camden	Social Work
Tanis, Delaine T.	Camden	Speech Pathology

Source: Various Internet sources

Recreational Facilities

Table 93 lists some of the recreational facilities and opportunities in Camden County that are accessible to the general public; the table also lists some of the sites of cultural and/or historical significance in the county. This list was compiled from public domain sources in May, 2013 and may or may not be current at the present time.

Table 93. Recreational and Cultural Facilities and Opportunities in Camden County

Category/Name	Location	Facilities/Programs
Camden County Parks and Recreation Athletics	Camden	Girls volleyball; adult volleyball; youth basketball; youth wrestling
Babe Ruth Baseball and Softball	Camden	Organized youth baseball and softball
Camden Bears	Camden	Youth football, cheering and flag football
Shiloh Sharks	Shiloh	Youth football and cheer league
Subdivision Walking Routes	Various in-county locations	The county provides aerial maps and measured walking routes for 15 Camden County subdivisions
Dismal Swamp Canal	South Mills, NC to Chesapeake, VA	Eco-tourism opportunities including hiking, biking, birding, paddling and photography
Dismal Swamp State Park	South Mills	Interactive visitor center; boardwalk into the swamp; hiking and mountain biking trails; mountain bike and kayak rentals
Camden County Historic Jailhouse	Camden	Home to the Camden County Museum

Sources:
Camden County, NC, Departments, Parks and Recreation; http://www.camdencountync.gov/departments/parks-recreation.
Camden County, NC, About Camden, Points of Interest; http://www.camdencountync.gov/about/points-of-interest.

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 Camden 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 Camden 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 of 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 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)

Camden 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 Camden 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 Camden 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 94 shows where NC stood in the 2012 rankings relative to the "best" and "worst" states, where first-ranked is best.

Table 94. Rank of North Carolina in America's Health Rankings (2012)

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

United Health Foundation, 2012. America's Health Rankings; http://www.americashealthrankings.org/NC/2012.

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 95 presents the 2013 county rankings for Camden County, the ARHS regional average and Pamlico County in terms of health outcomes and health factors; Table 96 presents additional detail for these jurisdictions as well as the average for NC and national benchmarks.

- Camden County ranks 4th overall in NC.
- The best Camden County rankings are in the categories social and economic factors (2nd), mortality (3rd), and morbidity (20th).

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 95. 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	
Camden County	3	20	33	35	2	28	4
Regional Average	49	60	57	43	38	26	53
Pamlico County	82	4	17	10	27	29	34

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 96. County Health Rankings Details (2013)

Health Factor		Camden County	*ARHS Regional Average*	Pamlico County	NC County Average	National Benchmark[1]
Mortality						
	Premature deaths	5,064	8,109	9,428	7,480	5,317
Morbidity						
	Poor or fair health	20%	21%	17%	18%	10%
	Poor physical health days	4.2	4.1	2.2	3.6	2.6
	Poor mental health days	2.2	3.0	1.7	3.4	2.3
	Low birthweight	7.9%	10.5%	8.6%	9.1%	6.0%
Health Factors						
	Health Behaviors					
	Adult smoking	N/A	23.5%	17%	21%	13%
	Adult obesity	32%	33%	28%	29%	25%
	Physical inactivity	26%	28%	27%	25%	21%
	Excessive drinking	N/A	11%	5%	13%	7%
	Motor vehicle crash death rate	17	23	32	17	10
	Sexually transmitted infections	90	407	274	441	92
	Teen birth rate	29	44	55	46	21
	Clinical Care					
	Uninsured	16%	0	20%	19%	11%
	Primary Care physicians	10005:1		2188:1	1480:1	1067:1
	Dentists	N/A		3458:1	2171:1	1516:1
	Preventable hospital stays	71	68	46	63	47
	Diabetic screening	89%	86%	90%	88%	90%
	Mammography screening	70%	72%	78%	69%	73%
	Social & Economic Factors					
	High school graduation	86%	82%	88%	80%	N/A
	Some college	71%	53%	52%	62%	70%
	Unemployment	8.5%	9.8%	10.3%	10.5%	5.0%
	Children in poverty	15%	27%	33%	25%	14%
	Inadequate social support	10%	15%	8%	21%	14%
	Children in single-parent households	23%	36%	30%	35%	20%
	Violent crime rate	70	210	196	411	66
	Physical Environment					
	Daily fine particulate matter	12.3	12	12.4	12.9	8.8
	Drinking water safety	0%	0%	0%	3%	0%
	Access to recreational facilities	0	5	8	11	16
	Limited access to healthy foods	1%	4%	2%	7%	1%
	Fast food restaurants	50%	47%	60%	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 97 presents total annual pregnancy, fertility and abortion rates for women age 15-44 for the period from 2007-2011.

- The *total pregnancy rate* in Camden County was the lowest among the comparators in every year cited. The total pregnancy rate in Camden County decreased by 15% overall between 2007 and 2011.
- The *total fertility rate* in Camden County was the lowest among the comparators in every year cited except 2007, when it was the second-lowest. The total fertility rate in Camden County decreased by 25% overall between 2007 and 2011.
- The *total abortion rate* in Camden County was the lowest or second-lowest in every year cited. Note however that the total abortion rate in the county was unstable in 2007 and 2011.

Table 97. 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
Camden County	64.8	59.9	**4.9**	57.9	46.5	11.0	59.4	52.1	7.2	59.9	50.1	9.8	55.2	45.1	**10.1**
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
Pamlico County	68.9	54.7	14.2	66.5	58.6	7.9	66.2	54.9	11.4	71.5	57.6	11.7	59.3	49.3	10.0
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 has been 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 98 presents pregnancy, fertility, and abortion rates stratified according to the new model.

- The pregnancy and fertility rates in Camden County were highest among African American non-Hispanics in 2010; rates for other minority groups that year were unstable. All the racially and ethnically stratified pregnancy, fertility and abortion rates for non-whites in 2011 were unstable.

Table 98. 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
Camden County Total	59.9	50.1	9.8	55.2	45.1	**10.1**
White, Non-Hispanic	56.5	48.0	8.4	56.1	47.0	9.1
African American, Non-Hispanic	84.1	65.4	**18.7**	**32.9**	**24.7**	**8.2**
Other, Non-Hispanic	**73.2**	**73.2**	**0.0**	**216.2**	**162.2**	**54.1**
Hispanic	**48.8**	**24.4**	**24.4**	**13.9**	**13.9**	**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
Pamlico County Total	71.5	57.6	11.7	59.3	49.3	10.0
White, Non-Hispanic	69.1	55.8	11.8	59.3	48.9	10.4
African American, Non-Hispanic	80.2	61.7	**15.4**	38.2	32.4	**5.9**
Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**69.0**	**69.0**	**0.0**
Hispanic	**98.8**	**86.4**	**0.0**	141.2	117.6	**23.5**
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 99 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 Camden County teens was the lowest among the comparators in every year cited. Note however that most of the rates in the table were technically unstable.
- The *total fertility rate* for Camden County teens also was the lowest among the comparators in every year cited. However all fertility rates for the county were unstable except for the 2009 figure.
- Total abortion rates for teens in the counties were unstable.

Table 99. 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
Camden County	**28.7**	**28.7**	**0.0**	**22.4**	**11.2**	**11.2**	42.7	34.2	**8.5**	34.1	**27.9**	**6.2**	**20.4**	**5.8**	**14.6**
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
Pamlico County	59.8	43.2	**16.6**	81.7	76.1	**5.6**	64.1	39.0	**25.1**	82.2	62.3	**17.0**	59.3	41.5	**17.8**
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 100 presents racially/ethnically stratified pregnancy, fertility and abortion data for teens. There were too many unstable racially stratified rates among minority teens in Camden County to support comparison.

Table 100. Pregnancy, Fertility and Abortion Rates, Ages 15-19, Stratified by Race/Ethnicity (2010 and 2011)

Location	Females Ages 15-19					
	2010			2011		
	Pregnancy Rate	Fertility Rate	Abortion Rate	Pregnancy Rate	Fertility Rate	Abortion Rate
Camden County Total	34.1	**27.9**	**6.2**	**20.4**	**5.8**	**14.6**
White, Non-Hispanic	**25.5**	**21.8**	**3.6**	**24.7**	**7.1**	**17.7**
African American, Non-Hispanic	**105.3**	**78.9**	**26.3**	**0.0**	**0.0**	**0.0**
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
Pamlico County Total	82.2	62.3	**17.0**	59.3	41.5	**17.8**
White, Non-Hispanic	77.8	55.6	**18.5**	61.0	**40.7**	**20.3**
African American, Non-Hispanic	**92.3**	**76.9**	**15.4**	**41.1**	**41.1**	**0.0**
Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Hispanic	**125.0**	**125.0**	**0.0**	**125.0**	**62.5**	**62.5**
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 101 presents trend data on the number of teen pregnancies in each jurisdiction from 2003-2011.

Table 101. 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
Camden County	16	9	9	18	9	8	15	11	7
Regional Average	36	38	47	46	43	37	38	31	28
Pamlico County	21	24	26	23	18	29	23	29	20
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 102 presents trend data on the number of adolescent pregnancies in each jurisdiction from 2003-2011.

Table 102. 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
Camden County	1	0	0	0	0	0	0	0	0
Pamlico County	0	0	1	0	0	1	0	0	0
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 103 presents data on high-parity and short interval births for the period 2007-2011.

- The percentage of high-parity births among women under age 30 was lowest in Camden County; and among women age 30 or older the percentage was second-lowest in Camden County.
- The percentage of short-interval births also was lowest in Camden County.

Table 103. 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]
Camden County	32	11.0	38	19.9	31	9.4
Regional Average	138	16.7	59	19.5	89	12.6
Pamlico County	77	20.6	31	21.7	45	13.8
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 (52).

Table 104 presents trend data on smoking during pregnancy for the aggregate periods from 2001-2005 through 2005-2009.

- The percent of births to mothers who smoked during pregnancy in Camden County was lowest or second-lowest among the comparators in every period cited.

Table 104. 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.	%
Camden County	58	12.6	59	11.9	63	11.8	51	9.9	57	11.2
Regional Average	127	12.4	130	12.3	136	12.6	136	12.3	135	12.5
Pamlico County	141	26.0	142	25.3	151	26.9	149	26.4	141	25.5
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 105 presents trend data on the percent of all women receiving prenatal care in the first trimester for the four jurisdictions included in this report.

- The percent of all pregnant women in Camden County who received early prenatal care averaged approximately 91% over the period cited, higher than the state average (83%) and regional average (85%) for the period.
- The percentage of pregnant black women in Camden County who received early prenatal care averaged approximately 79% over the period cited, slightly higher than the comparable average for black women region-wide (78%) and statewide (75%).

Table 105. 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
Camden County	92.2	82.6	100.0	91.3	81.4	100.0	91.6	79.7	100.0	89.5	73.6	100.0	89.6	77.3	100.0
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
Pamlico County	75.8	60.0	100.0	71.5	55.1	100.0	74.4	60.4	100.0	75.5	60.4	100.0	73.0	61.0	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 (53).

Table 106 presents five-year aggregate data on low birth weight births: infants weighing 2,500 grams (5.5 pounds) or less.

- The total percent of low birth-weight births and the percent of low birth-weight births among white non-Hispanics were lowest in Camden County in both periods cited.
- Most of the other racially/ethnically stratified percentages shown in the table were based on small numbers of events and should be considered unstable. In NC as a whole, where the percentages were based on larger numbers, black non-Hispanic women had the highest percentage of low birth-weight births.

Table 106. 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
Camden County	8.1	7.6	**12.7**	**7.7**	**0.0**	7.5	7.3	**10.3**	**5.9**	**0.0**
Regional Average	10.3	7.7	14.8	7.3	7.7	9.9	7.5	14.1	6.2	9.3
Pamlico County	8.8	8.3	**11.7**	**0.0**	**6.1**	8.7	8.3	**10.6**	**50.0**	**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 107 presents five-year aggregate data on very low birth-weight births: infants weighing 1,500 grams (3.3 pounds) or less.

- In both counties the percentages of very low birth-weight births among racially/ethnically-stratified groups were based on small numbers of events and thus were unstable. At the state level, black non-Hispanic women had the highest percentage of very low birth-weight births.

Table 107. 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
Camden County	**1.8**	**1.7**	**3.2**	**0.0**	**0.0**	**1.2**	**1.0**	**3.4**	**0.0**	**0.0**
Regional Average	2.4	1.6	4.2	1.3	3.9	2.1	1.3	3.9	0.9	4.5
Pamlico County	**1.8**	**0.7**	**6.8**	**0.0**	**0.0**	**1.7**	**1.0**	**5.3**	**0.0**	**0.0**
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 108 presents data on the percent of births delivered by Cesarean section.

- As elsewhere in the US, the percentage of Cesarean section delivery in all four jurisdictions has risen over time. Over the period cited in the table, Cesarean deliveries rose by 19% in Camden County, 13% in the ARHS region, 5% in Pamlico County, and 13% statewide.

Table 108. 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
Camden County	28.5	29.5	31.3	33.1	34.7	32.9	33.9
Regional Average	28.6	29.5	30.3	30.8	31.3	31.8	32.2
Pamlico County	27.5	28.3	28.1	28.9	28.8	30.5	28.9
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 from the hospitals in the region speaks to the frequency of problems connected with Camden County infants upon birth. Table 109 summarizes some of that data for 2012, based on inpatient hospitalizations at Albemarle Hospital.

- Of 43 hospitalizations at Albemarle Hospital associated with infants born to Camden County resident mothers in 2012, 31 (72%) involved “normal” infants. An additional 12 births (28%) involved infants that presented with “significant” problems. There were no births recorded involving infants with “major” problems.

Table 109. Discharges of Newborn Infants, Camden County Resident Mothers, Albemarle Hospital
(2012)

DRG Code	Diagnosis	No. of Discharges
795	Normal newborn	31
793	Full-term neonate with major problems	0
794	Neonate with other significant problems	12

Source: Albemarle Health.

Infant Mortality

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

Table 110 presents infant mortality data for Camden County, the ARHS region, Pamlico County and the state of NC.

- Due to infant deaths numbering fewer than 20 per aggregate period in Camden County and the other local jurisdictions, stable rates are not available for comparison.
- At the state level, the infant mortality rate decreased 8% overall between 2001-2005 and 2007-2011.

Table 110. 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
Camden County	**1**	**2.2**	**1**	**2**	**2**	**3.8**	**3**	**5.8**	**3**	**5.9**	**5**	**9.9**	**5**	**10.4**
Regional Average	**10**	**9.4**	**10**	**9.2**	**11**	**10.1**	**13**	**11.3**	**14**	**11.8**	**13**	**11.9**	**13**	**11.4**
Pamlico County	**4**	**7.4**	**4**	**7.1**	**3**	**5.3**	**3**	**5.3**	**3**	**5.4**	**5**	**9.2**	**5**	**9.7**
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 111 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 111. 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
Camden County	Total	**5**	**9.9**	**5**	**10.4**
	White, Non-Hispanic	**5**	**11.9**	**5**	**12.5**
	African American, Non-Hispanic	**0**	**0.0**	**0**	**0.0**
	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**
Pamlico County	Total	**5**	**9.2**	**5**	**9.7**
	White, Non-Hispanic	**3**	**7.3**	**3**	**7.8**
	African American, Non-Hispanic	**2**	**19.4**	**2**	**21.3**
	Other, Non-Hispanic	**0**	**0.0**	**0**	**0.0**
	Hispanic	**0**	**0.0**	**0**	**0.0**
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 112 presents gender- and race-stratified life expectancy at birth data for all jurisdictions.

- Overall life expectancy at birth in Camden County increased by 4.8 years, from 75.8 to 80.6 (6.3%), between 1990-1992 and 2008-2010.
- In both periods cited average life expectancies at birth for females in Camden County were higher than life expectancies for males, but the gap narrowed from 8.9 years to 4.0 years because life expectancy increased by 7.0 years for males and only 2.1 years for females.
- In Camden County in 1990-1992 the life expectancy for whites exceeded the life expectancy for African-Americans by 6.5 years. By 2008-2010 the life expectancy for African Americans had increased by 9.6 years and the life expectancy gap had narrowed to 0.2 years.

Table 112. 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
Camden County	75.8	71.6	80.5	77.5	71.0	80.6	78.6	82.6	80.8	80.6
Regional Average	73.7	69.8	77.7	75.1	70.3	77.1	73.7	80.5	78.1	74.9
Pamlico County	75.1	71.5	78.7	76.7	70.7	77.3	73.7	81.2	77.8	74.6
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 major site-specific cancers. The list of topics and the accompanying data was retrieved from the NC SCHS *County Health Databook*. Unless otherwise noted, the numerical data are age-adjusted and represent five-year aggregate periods.

Table 113 compares mortality rates for the 15 leading causes of death in Camden County, the ARHS region, Pamlico County, 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 Camden County. Note that the NC SCHS suppressed rates for some causes of death (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 Camden County and NC mortality rates are discussed below.

Relative to the **state of NC**:

- The overall mortality rate in Camden County (725.1) was 10% *lower* than the overall state mortality rate (808.4).
- The first two leading causes of death were *reversed*: first in Camden County but second in NC: diseases of the heart; second in Camden County but first in NC: total cancer. The heart disease mortality rate in Camden County (160.3) was 11% *lower* than the state rate (179.3), and the total cancer mortality rate in Camden County (160.2) was 11% *lower* than the state rate (179.7). Note that the Camden County mortality rates for heart disease and cancer were nearly identical.
- Cerebrovascular disease ranked *higher* among leading causes of death in Camden County (3^{rd} vs. 4^{th}). The mortality rate for cerebrovascular disease in Camden County was 47.1, 2% *higher* than the comparable state rate of 46.0.

Due to below-threshold numbers of deaths in the remaining twelve categories of mortality in Camden County, NC SCHS suppressed the associated rates.

Table 113. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Camden County and Comparators (Single Five-Year Aggregate Period, 2007-2011 or as Noted)[1]

Cause of Death	Camden County			*Regional Average*			Pamlico County			State of NC			United States (2011)	
	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Number	Rate	Rank	Rate	Rank
Diseases of the Heart	75	160.3	1	*220*	*188.9*	*2*	159	163.3	2	86,099	179.3	2	173.7	1
Total Cancer	80	160.2	2	*228*	*195.3*	*1*	175	174.4	1	88,518	179.7	1	168.6	2
Cerebrovascular Disease	21	47.1	3	*51*	*43.7*	*4*	53	54.7	3	21,774	46.0	4	37.9	5
Chronic Lower Respiratory Disease	17	N/A	N/A	*51*	*46.1*	*3*	43	41.4	4	22,274	46.6	3	42.7	3
All Other Unintentional Injuries	15	N/A	N/A	*31*	*31.2*	*6*	28	32.9	5	13,781	29.2	5	38.0	4
Alzheimer's Disease	11	N/A	N/A	*30*	*26.9*	*8*	27	29.0	7	13,347	29.0	6	24.6	6
Diabetes Mellitus	11	N/A	N/A	*31*	*37.8*	*5*	15	N/A	N/A	10,733	22.0	7	21.5	7
Nephritis, Nephrotic Syndrome, and Nephrosis	11	N/A	N/A	*19*	*19.8*	*9*	17	N/A	N/A	8,860	18.6	8	13.4	9
Pneumonia and Influenza	9	N/A	N/A	*30*	*14.0*	*11*	14	N/A	N/A	8,455	17.9	9	15.7	8
Unintentional Motor Vehicle Injuries	8	N/A	N/A	*20*	*27.9*	*7*	21	31.4	6	7,336	15.5	10	10.9	11
Septicemia	6	N/A	N/A	*14*	*9.7*	*12*	16	N/A	N/A	6,515	13.6	11	10.5	12
Suicide	5	N/A	N/A	*10*	*17.4*	*10*	18	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*	12	N/A	N/A	4,723	9.3	13	9.7	13
Acquired Immune Deficiency Syndrome	0	N/A	N/A	*4*	*N/A*	*N/A*	1	N/A	N/A	1,687	3.5	15	2.4	15
Homicide	0	N/A	N/A	*4*	*N/A*	*N/A*	3	N/A	N/A	2,949	6.3	14	3.6	14
Total Deaths All Causes (Some causes are not listed above)	341	725.1	N/A	*949*	*840.1*	*N/A*	734	796.1	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

Sources:

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 Camden County were *lower* for heart disease and total cancer, but *higher* for cerebrovascular disease. The overall mortality rate in Camden County (725.1) was 14% *lower* than the average overall regional rate (840.1).

Compared to US mortality rates, mortality rates in Camden County were *lower* for heart disease and total cancer, but *higher* for cerebrovascular disease.

The overall mortality rate in Camden County (725.1) was 2% lower 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 114 compares gender stratified rates for the 15 leading causes of death in Camden County and its comparator jurisdictions. The usefulness of the table is hampered by numerous suppressed gender-stratified mortality rates.

In Camden County, mortality *rates for males were higher* than comparable rates for females for:

- Diseases of the heart (by 97%), and
- Total cancer (by 53%)

While gender-stratified mortality rates for Camden County were suppressed for the remaining causes of death, the *number* of deaths among males *significantly* surpassed (i.e., by more than three) the *number* of deaths among females for:

- Nephritis, nephrotic syndrome and nephrosis, and
- Unintentional motor vehicle injuries

The number of deaths among females *significantly* surpassed the number of deaths among males for:

- Cerebrovascular disease, and
- Alzheimer's disease

In Camden County, the overall mortality rate for males (858.9) was 40% higher than the overall mortality rate for females (612.9).

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 114. Sex-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death (Single Five-Year Aggregate Period, 2007-2011)

Cause of Death	Camden County				Pamlico County Rate		Regional Average Rate		State of NC Rate	
	Males		Females							
	Number	Rate	Number	Rate	Males	Females	Males	Females	Males	Females
1. Diseases of the Heart	48	217.0	27	110.0	198.9	131.3	256.2	136.6	229.4	141.6
2. Cancer	44	202.1	36	132.0	221.9	132.1	245.5	161.1	227.4	147.5
3. Cerebrovascular Diseases	8	N/A	13	N/A	46.9	59.8	64.2	40.5	46.8	44.5
4. Chronic Lower Respiratory Disease	7	N/A	10	N/A	38.3	40.3	73.4	35.4	54.9	41.7
5. All Other Unintentional Injuries	7	N/A	8	N/A	N/A	N/A	46.7	19.8	38.8	20.9
6. Alzheimer's Disease	1	N/A	10	N/A	N/A	40.4	N/A	N/A	22.7	32.2
7. Diabetes Mellitus	6	N/A	5	N/A	N/A	N/A	61.1	36.0	26.0	18.8
8. Nephritis, Nephrotic Syndrome and Nephrosis	9	N/A	2	N/A	N/A	N/A	N/A	N/A	22.7	16.0
9. Pneumonia and Influenza	4	N/A	5	N/A	N/A	N/A	56.7	47.9	20.9	16.1
10. Unintentional Motor Vehicle Injuries	7	N/A	1	N/A	N/A	N/A	**54.2**	**N/A**	22.9	8.6
11. Septicemia	3	N/A	3	N/A	N/A	N/A	**N/A**	**N/A**	15.0	12.6
12. Suicide	1	N/A	4	N/A	N/A	N/A	**N/A**	**N/A**	19.6	5.3
13. Chronic Liver Disease and Cirrhosis	3	N/A	0	N/A	N/A	N/A	**N/A**	**N/A**	13.2	5.9
14. Acquired Immune Deficiency Syndrome	0	N/A	0	N/A	N/A	N/A	**N/A**	**N/A**	4.8	2.3
15. Homicide	0	N/A	0	N/A	N/A	N/A	**N/A**	**N/A**	9.8	2.9
Total Deaths All Causes (Some causes are not listed above)	185	858.9	156	612.9	910.7	686.6	**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 racially-stratified mortality rates for minorities in Camden County were suppressed. According to data in Table 115, in Camden County the overall mortality rate for African American non-Hispanics (805.5) was 14% higher than the overall mortality rate for white non-Hispanics (708.1). Racial differences in mortality will be described in detail as each cause of death is discussed separately in subsequent sections of this report.

Table 115. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death (Single Five-Year Aggregate Period, 2007-2011)

Cause of Death	Camden 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. Diseases of the Heart	57	149.4	18	N/A	0	N/A	0	N/A	75	160.3
2. Cancer	64	154.2	15	N/A	1	N/A	0	N/A	80	160.2
3. Cerebrovascular Diseases	18	N/A	3	N/A	0	N/A	0	N/A	21	47.1
4. Chronic Lower Respiratory Disease	17	N/A	0	N/A	0	N/A	0	N/A	17	N/A
5. All Other Unintentional Injuries	12	N/A	1	N/A	1	N/A	1	N/A	15	N/A
6. Alzheimer's Disease	9	N/A	2	N/A	0	N/A	0	N/A	11	N/A
7. Diabetes Mellitus	8	N/A	3	N/A	0	N/A	0	N/A	11	N/A
8. Nephritis, Nephrotic Syndrome and Nephrosis	8	N/A	3	N/A	0	N/A	0	N/A	11	N/A
9. Pneumonia and Influenza	7	N/A	2	N/A	0	N/A	0	N/A	9	N/A
10. Unintentional Motor Vehicle Injuries	7	N/A	1	N/A	0	N/A	0	N/A	8	N/A
11. Septicemia	3	N/A	3	N/A	0	N/A	0	N/A	6	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	3	N/A	0	N/A	0	N/A	0	N/A	3	N/A
14. Acquired Immune Deficiency Syndrome	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
15. Homicide	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Total Deaths All Causes (Some causes are not listed above)	271	708.1	66	805.5	3	N/A	1	N/A	341	725.1

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-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 116 lists the three leading causes of death by age group for the five-year aggregate period from 2007-2011. (For this purpose it is important to use *non-age adjusted* death rates.) Note that many of the causes of death were linked to small numbers of deaths, as indicated by *italic* type.

The leading cause(s) of death in each of the age groups in Camden County were:

- Age Group 00-19: Motor vehicle injuries
- Age Group 20-39: Cancer – all sites
- 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:

- Cancer was a more prominent cause of death in the 20-39 age group in Camden County than in the other jurisdictions.
- Alzheimer's disease was a more prominent cause of death among the 85+ age group in Pamlico County than in the other jurisdictions.

Table 116. 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		
		Camden County	Pamlico County	State of NC
00-19	1	Motor vehicle injuries	Conditions originating in the perinatal period	Conditions originating in the perinatal period
	2	*Congenital anomalies* *SIDS*	*Suicide*	Congenital anomalies (birth defects)
	3	*Anemias*	*Acute bronchitis & bronchiolitis* *Congenital anomalies (birth defects)* *Other unintentional injuries*	Motor vehicle injuries
20-39	1	Cancer-all sites	Motor vehicle injuries Suicide	Motor vehicle injuries
	2	*Other unintentional injuries*	*Diseases of the heart* *Other unintenional injuries*	Other unintentional injuries
	3	*Aortic aneurism and dissection* *Motor vehicle injuries* *Suicide*	*Cancer-all sites* *Homicide*	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	Other unintentional injuries	Motor vehicle injuries Other unintentional injuries	Other unintentional injuries
65-84	1	Cancer-all sites	Cancer-all sites	Cancer-all sites
	2	Diseases of the heart	Diseases of the heart	Diseases of the heart
	3	Chronic lower respiratory diseases	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	Alzheimer's disease	Cancer-all sites
	3	Cerebrovascular disease	Cerebrovascular disease	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 to lowest rank in Camden County, beginning with heart disease. 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.

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 (54).

Heart disease was the leading cause of death in Camden County, and the second leading cause of death in the Albemarle Region, Pamlico County and the state of NC in the 2007-2011 period (cited previously).

Heart Disease Hospitalizations

Table 117 presents hospital discharge rate trend data for several years. According to this data from NC SCHS, heart disease has been cause for a high rate of hospitalization among Camden County residents, but at a lower rate than the comparable state and regional averages.

Table 117. Heart Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	9.2	9.5	9.6	6.6	5.3	5.7	7.1
Regional Average	11.4	11.9	11.1	10.6	9.7	9.7	9.9
Pamlico County	16.5	16.3	15.6	16.2	14.1	15.5	12.4
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 71 hospital admissions for heart disease among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

Table 118 presents data on 2012 inpatient hospitalizations of Camden County residents at the four nearest hospitals 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 39 inpatient hospitalizations of Camden County residents at the four hospitals for these categories of heart disease in 2012.

Table 118. Inpatient Hospitalizations of Camden County Residents for Diseases of the Heart, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations			
		VBER	VCHO	VROA	AH
393-398	Chronic rheumatic heart disease	0	0	0	0
402	Hypertensive heart disease	0	0	0	0
410-414	Ischemic heart disease	0	0	0	9
415-416	Pulmonary heart disease	0	0	0	5
420-429	Other forms of heart disease	0	0	0	25
TOTAL		0	0	0	39

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Table 119 presents data on the number of emergency department (ED) admissions of Camden County residents to the four ARHS region hospitals 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. Camden County residents made a total of 88 ED visits for these categories of heart disease over the period cited.

Table 119. Emergency Department Admissions of Camden County Residents for Diseases of the Heart, ARHS Region Hospitals (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	6	18	7
415-416	Pulmonary heart disease	0	0	0
420-429	Other forms of heart disease	15	21	21
TOTAL		21	39	28

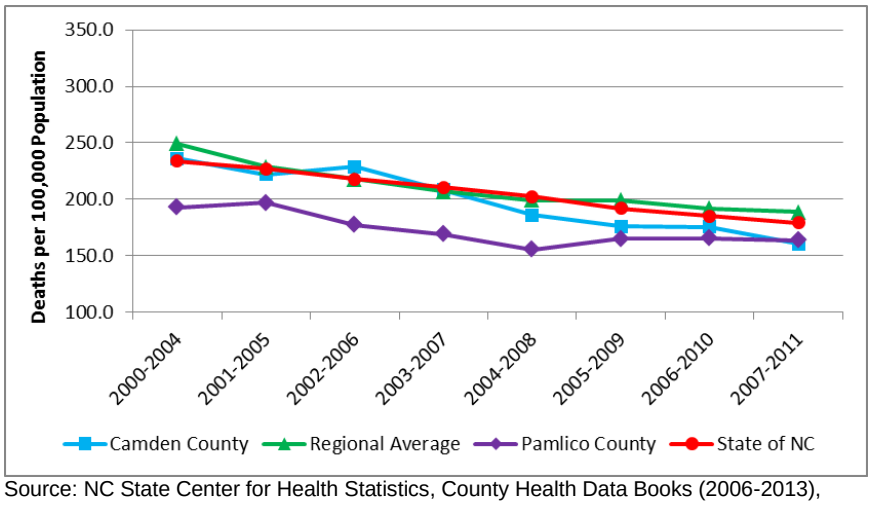
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Heart Disease Mortality Rate Trend

Figure 7 displays the heart disease mortality rate trend over time in the four jurisdictions being compared in this CHA.

- The heart disease mortality rate fell significantly in all four jurisdictions over the period cited.
- The largest decrease over the period cited—32%—occurred in Camden County, where the heart disease mortality rate fell from 236.0 to 160.3 over the period.
- At the state level, the heart disease mortality rate fell 23% over the period cited.

Figure 7. 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 120 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 Camden County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the heart disease mortality rate was lowest in Camden County and highest region-wide.
- Among African American non-Hispanic persons the heart disease mortality rate was lowest in NC as a whole and highest in the ARHS region.
- 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 120. Race/Ethnicity-Specific and Sex-Specific Heart Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

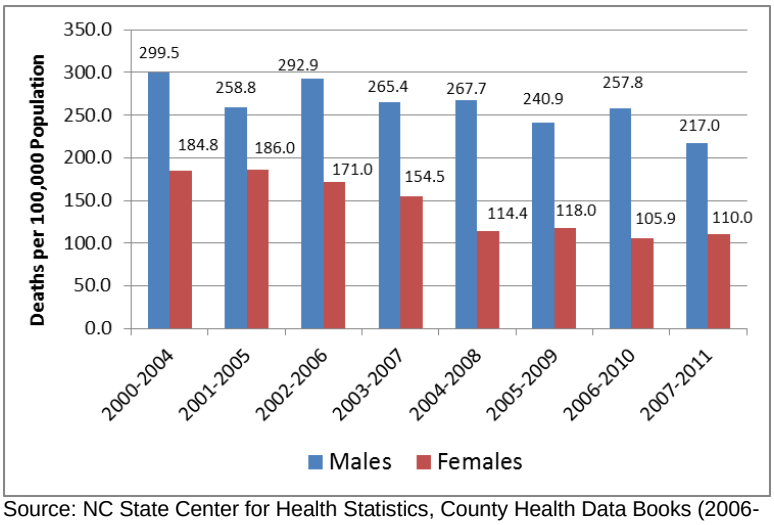
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	57	149.4	18	N/A	0	N/A	0	N/A	48	217.0	27	110.0	75	160.3
Regional Average	148	185.4	71	222.3	1	N/A	0	N/A	122	256.2	97	136.6	220	188.9
Pamlico County	118	152.8	41	212.5	0	N/A	0	N/A	86	198.9	73	131.3	159	163.6
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 8 depicts gender-stratified heart disease mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in heart disease mortality noted in Camden County for 2007-2011 is actually longstanding. Noteworthy also is the apparent decrease in heart disease mortality among both men and women since the 2000-2004 period.

Figure 8. Sex-Specific Heart Disease Mortality Rate Trend, Camden 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 121 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 in Camden County and elsewhere the NC SCHS suppressed the related mortality rates.
- 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 121. 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
Camden County	204.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Regional Average	252.0	296.3	N/A	N/A	136.5	178.0	N/A	N/A
Pamlico County	173.7	367.7	N/A	N/A	126.8	N/A	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/.

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 (56).

Total Cancer

Total cancer (cancers of all types) was the second-leading cause of death in Camden County and the leading cause of death in the ARHS region, Pamlico County and the state of NC in the 2007-2011 period (cited previously).

Malignant Neoplasm Hospitalizations

Table 122 presents the hospital discharge rate trend data for malignant neoplasms.

- The malignant neoplasm discharge rate in Camden County was the lowest among the four jurisdictions in every year cited. In all four jurisdictions hospitalizations for this diagnosis decreased overall in the period cited.

Table 122. All Malignant Neoplasms Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)				
	2007	2008	2009	2010	2011
Camden County	2.8	1.7	2.0	1.1	1.6
Regional Average	3.5	2.9	2.9	2.4	2.4
Pamlico County	5.5	6.0	5.2	3.6	3.8
State of NC	3.9	3.6	3.4	3.3	3.2

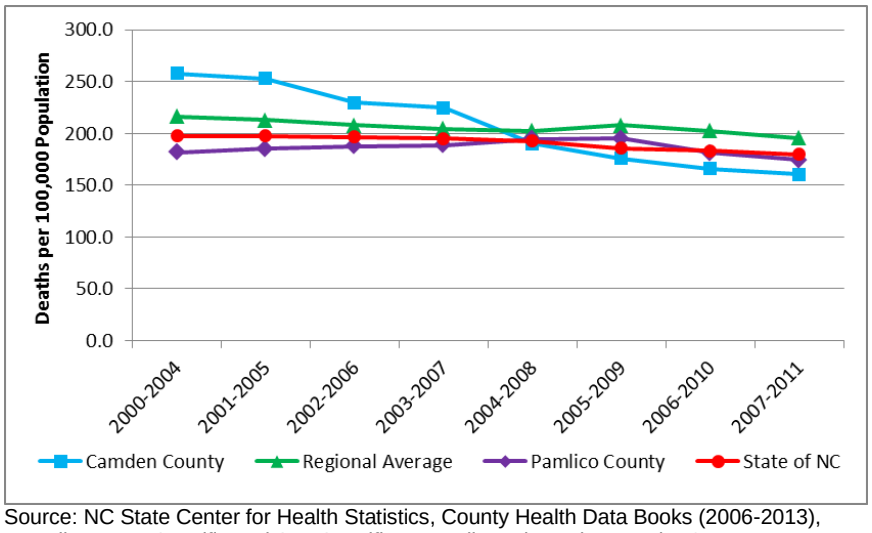
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Cancer Mortality Rate Trend

Figure 9 displays total cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- Over the period cited the total cancer mortality rate in Camden County fell from the highest rate among the comparators in 2000-2004 (257.7) to the lowest rate in 2007-2011 (160.2), a decrease of 38%.
- In every jurisdiction being compared the total cancer mortality rate in 2007-2011 was lower than the rate in 2000-2004.

Figure 9. 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 123 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 stratified populations in Camden 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 Pamlico County the total cancer mortality rate among African American non-Hispanics was 8% higher than the rate for white non-Hispanics. 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 123. Race/Ethnicity-Specific and Sex-Specific Total Cancer Mortality
(Single Five-Year Aggregate Period, 2007-2011)

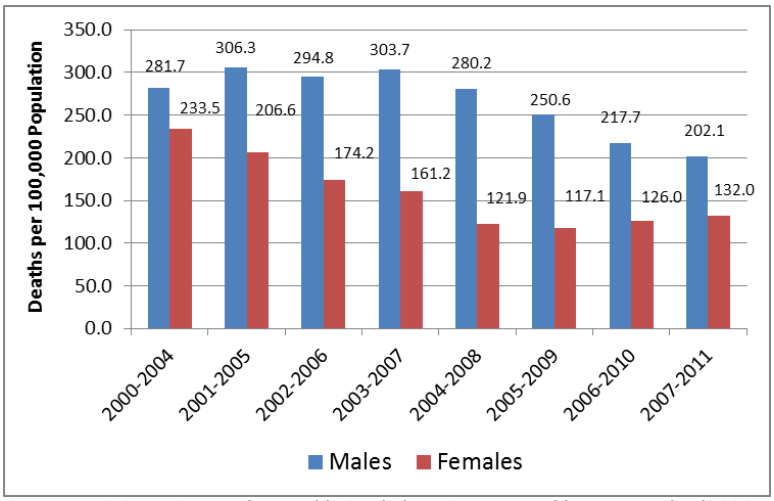
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	64	154.2	15	N/A	1	N/A	0	N/A	44	202.1	36	132.0	80	160.2
Regional Average	152	188.4	75	229.4	0	N/A	1	N/A	121	245.5	107	161.1	228	195.3
Pamlico County	136	174.3	38	188.0	1	N/A	0	N/A	106	221.9	69	132.1	175	174.4
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 10 depicts gender-stratified total cancer mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in total cancer mortality noted in Camden County for 2007-2011 is actually longstanding.
- The total cancer mortality rate for males decreased steadily over most of the period cited while the comparable decrease for females appeared to reverse recently.

Figure 10. Sex-Specific Total Cancer Mortality Rate Trend, Camden 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 124 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 the ARHS region and Pamlico County 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 (where available) exceeded the rates for white non-Hispanic females.
- At the state level, total cancer mortality rates among African American non-Hispanics, both male and female, were higher than comparable rates among their white, non-Hispanic counterparts. Total cancer mortality rates were lowest statewide among both male and female Hispanics.

Table 124. 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
Camden County	175.1	N/A	N/A	N/A	141.0	N/A	N/A	N/A
Regional Average	228.1	307.0	N/A	N/A	160.0	181.0	N/A	N/A
Pamlico County	223.6	230.1	N/A	N/A	127.0	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/.

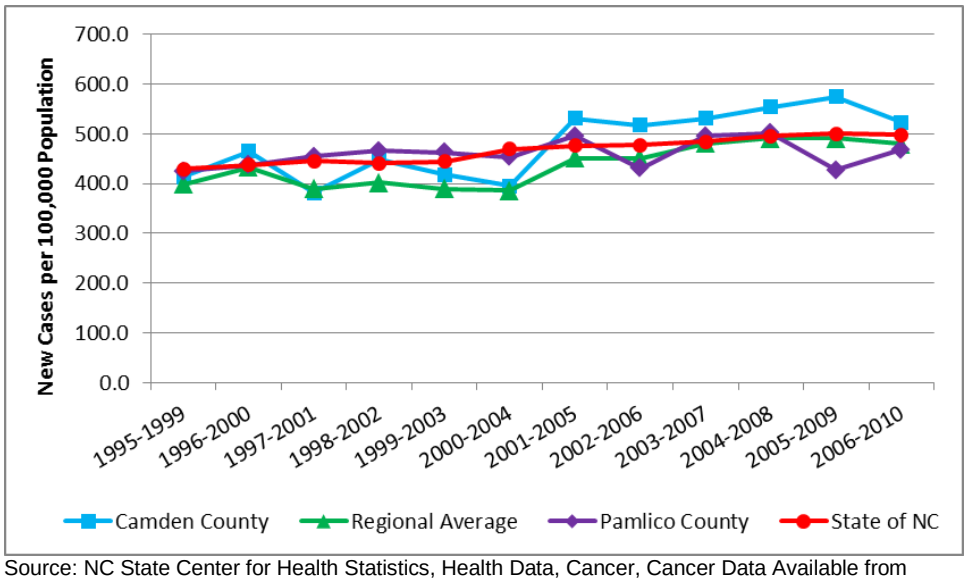
Total Cancer Incidence

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 11 plots the incidence rate trend for total cancer.

- The total cancer incidence rate in Camden County fluctuated over time, but increased 27% in net over the entire period cited, from 413.3 in 1995-1999 to 523.7 in 2006-2010. In the last six aggregate periods shown the total cancer incidence rate for Camden County was the highest among the comparators.
- 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 Pamlico County increased 10% from 424.5 in 1995-1999 to 468.7 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 11. 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 Camden 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 125 presents age-adjusted *mortality* data for the five major site-specific cancers for the 2007-2011 period.

- Due to below-threshold numbers of deaths in Camden County there was no site-specific cancer with a stable mortality rate.
- In NC as a whole, lung cancer presents the highest mortality rate, followed by prostate cancer, breast cancer, colon cancer, and pancreas cancer.

Table 125. 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
Camden County	5	N/A	4	N/A	18	N/A	9	N/A	5	N/A
Regional Average	14	27.2	13	34.1	72	64.0	21	19.4	13	10.4
Pamlico County	13	N/A	10	N/A	52	50.0	9	N/A	12	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 126 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 all four jurisdictions being compared breast cancer was the site-specific cancer with the highest incidence rate, followed by prostate cancer, lung cancer, and colon cancer.

Table 126. 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
Camden County	62	237.5	47	200.0	32	65.4	20	42.2
Regional Average	95	167.3	85	159.7	82	70.6	55	48.2
Pamlico County	68	142.1	74	128.3	85	84.6	30	32.0
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

Table127 summarizes hospital discharge rate data for trachea, bronchus and lung neoplasms.

- The hospital discharge rates for lung cancer in Camden County were either unstable or suppressed throughout the period cited.
- Statewide the lung cancer discharge rate decreased over the period cited.

Table 127. 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
Camden County	**0.3**	**0.6**	**0.6**	**0.3**	n/a	**0.3**	**0.2**
Regional Average	0.5	0.5	0.7	0.5	0.4	0.5	0.4
Pamlico County	**0.4**	**0.6**	1.5	**0.7**	1.2	**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, two Camden County residents were hospitalized somewhere in NC for diagnoses of malignant neoplasms of the trachea, bronchus and lung in 2011 (55).

Inpatient hospitalizations of Camden County residents in 2012 for malignant neoplasms of the trachea, bronchus and lung (ICD-9 Code 162) at the four ARHS-region hospitals are displayed in Table 128. In 2012 there were three admissions in that code category among the four regional hospitals.

Table 128. Inpatient Hospitalizations of Camden County Residents for Malignant Neoplasms of the Trachea, Bronchus and Lung, ARHS Region Hospitals (2012)

ICD-9 Code	Number of Inpatient Hospitalizations			
	VBER	VCHO	VROA	AH
162	0	0	0	3

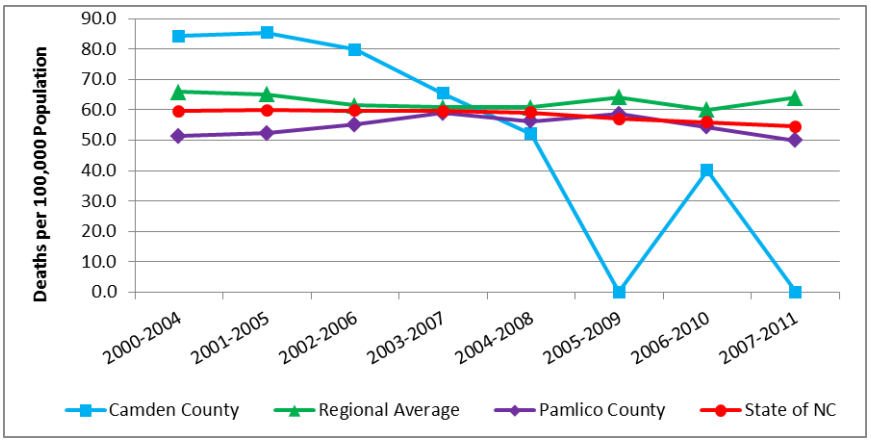
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Lung Cancer Mortality Rate Trend

Figure 12 displays lung cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The lung cancer mortality rate in Camden County fell overall in the period cited. Ignoring the two suppressed rates (indicated by "zero" value plots in the chart) the decrease was 52%, from 84.3 in 200-2004 to 40.1 in 2006-2010. Over that period the lung cancer mortality rate in Camden County fell from the highest to the lowest rate among the jurisdictions being compared.
- The lung cancer mortality rate in the region decreased 3% and the rate in NC decreased 9% over the entire period cited.

Figure 12. 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 129 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 mortality rates for those groups were suppressed, leaving no stable stratified rates for Camden County.
- Among white non-Hispanic persons elsewhere, the lung cancer mortality rate was lowest in Pamlico County; the regional average was the highest rate in this population group.
- 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 the ARHS region and NC as a whole.

Table 129. Race/Ethnicity-Specific and Sex-Specific Lung Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

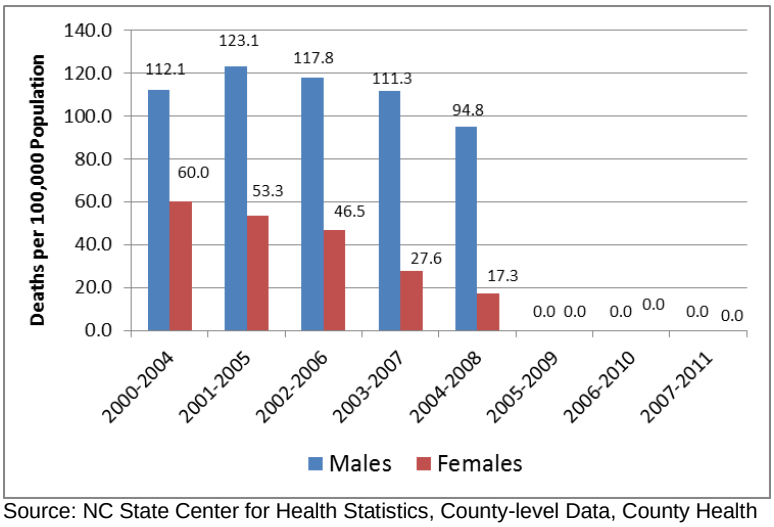
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	15	N/A	3	N/A	0	N/A	0	N/A	13	N/A	5	N/A	18	N/A
Regional Average	54	68.7	18	53.0	0	N/A	0	N/A	44	89.5	29	51.0	72	64.0
Pamlico County	44	53.4	8	N/A	0	N/A	0	N/A	36	72.6	16	N/A	52	50.0
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 13 depicts gender-stratified lung cancer mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- The lung cancer mortality rate among Camden County males and females fell over the period cited.
- In 2000-2004, the lung cancer mortality rate for Camden County males was 87% higher than the comparable rate for Camden County females; by 2007-2011 the difference had increased to 448%. Note that most of the rates for females were either unstable or suppressed.

Figure 13. Sex-Specific Lung Cancer Mortality Rate Trend, Camden County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



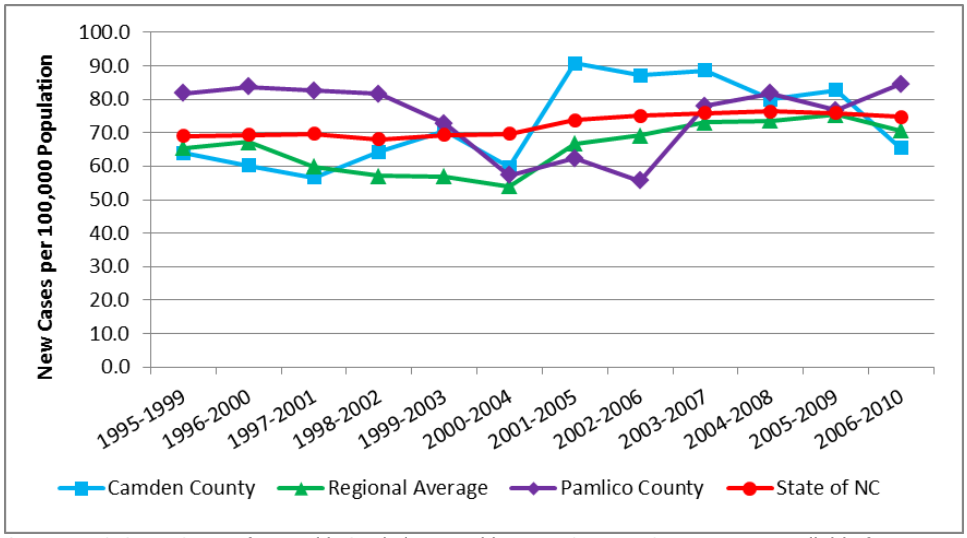
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Lung Cancer Incidence

Figure 14 plots the incidence rate trend for lung cancer.

- Lung cancer incidence rates were quite variable in the counties, but throughout the period cited increased at least slightly overall in every jurisdiction.

Figure 14. 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

Table130 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 130. 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
Camden County	**0.1**	**0.3**	**0.1**	**0.2**	**0.2**	**0.2**	**0.6**
Regional Average	**0.3**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.3**
Pamlico County	**0.3**	**0.4**	**0.3**	**0.7**	**0.5**	**0.5**	**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 six hospitalizations of Camden County residents somewhere in NC for treatment of malignant neoplasms of the prostate (55).

Inpatient hospitalizations of Camden County residents in 2012 for diagnosis and/or treatment of neoplasms of the prostate (ICD-9 Code 185) at the four ARHS-region hospitals are displayed in Table 131. In 2012 there were two inpatient hospitalizations in that code category among the four regional hospitals.

Table 131. Inpatient Hospitalizations of Camden County Residents for Neoplasms of the Prostate, ARHS Region Hospitals (2012)

ICD-9 Code	Number of Inpatient Hospitalizations			
	VBER	VCHO	VROA	AH
185	0	1	0	1

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Table 132 presents data on outpatient/day surgery procedures of the prostate performed among Camden County residents at the region's four hospitals in 2010-2012. The ICD-9 Procedure Code 60 (Operations on Prostate and Seminal Vesicles), which would include biopsy of the prostate, was used to conduct the data search. Note that this data is not necessarily specific to a diagnosis of prostate cancer. There was a total of eight procedures in that procedure code category conducted on Camden County residents at the four region hospitals in the period 2010-2012.

Table 132. Outpatient Operations on the Prostate and Seminal Vesicles, Camden County Residents, ARHS Region Hospitals (2010-2012)

Year	ICD-9 Procedure Code 60 Operations			
	VBER	VCHO	VROA	AH
2010	0	2	0	3
2011	0	1	0	0
2012	0	1	0	1

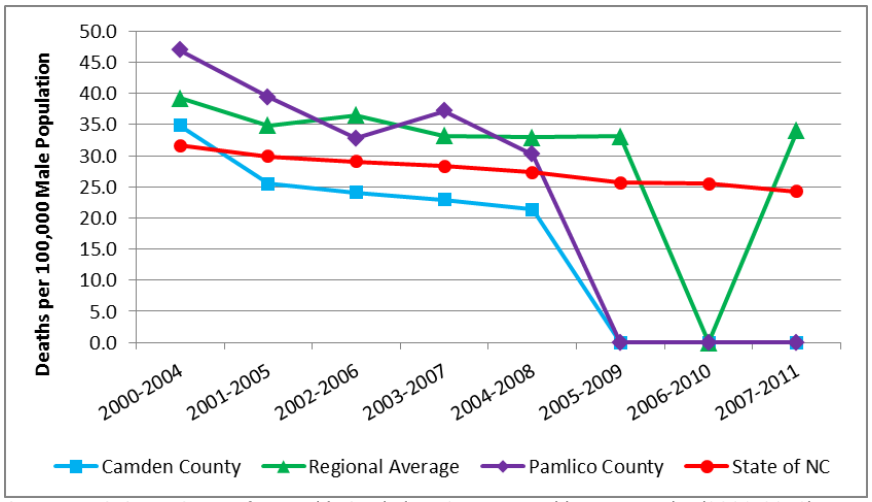
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Prostate Cancer Mortality Rate Trend

Figure 15 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 Camden County and Pamlico County prostate cancer mortality rates is a reflection of their instability. None of the county rates were stable, and the "zero" plots represent suppressed rates, and not true values of zero.
- Region-wide, the "zero" plot for 2006-2010 represents a suppressed rate. However, all the rates should be considered unstable since the mean includes several unstable rates.
- 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 15. 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 133 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 everywhere 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 133. Race/Ethnicity-Specific Prostate Cancer Mortality Rate (Single Five-Year Aggregate Period, 2007-2011)

Location	Deaths, Number and Rate (Deaths per 100,000 Male Population)									
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	4	N/A	0	N/A	0	N/A	0	N/A	4	N/A
Regional Average	6	N/A	6	N/A	0	N/A	0	N/A	13	34.0
Pamlico County	7	N/A	2	N/A	1	N/A	0	N/A	10	N/A
State of NC	2,882	19.6	1,416	55.6	51	17.3	36	12.0	4,385	24.3

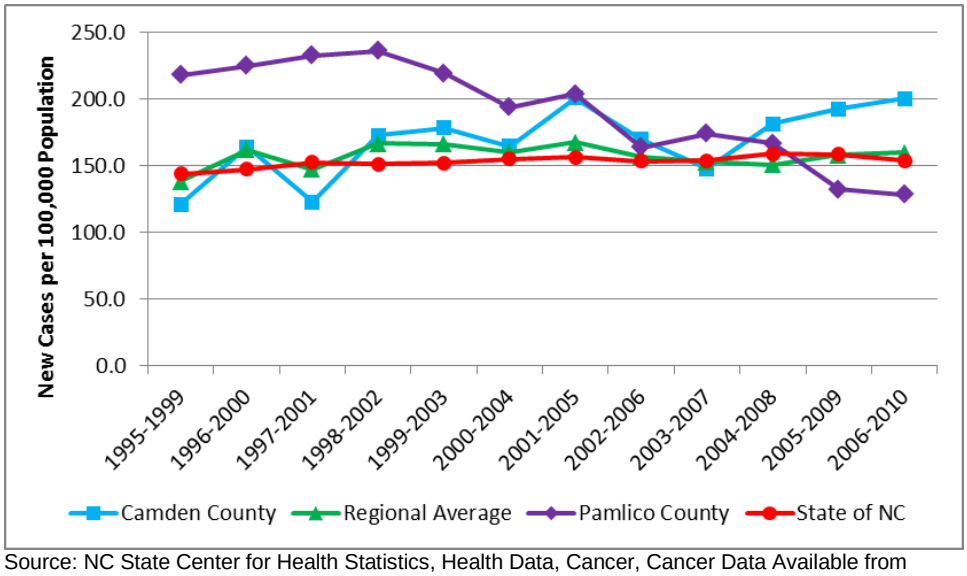
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Prostate Cancer Incidence

Figure 16 plots the incidence rate trend for prostate cancer.

- The prostate cancer incidence rates in Camden County fluctuated but increased 66% overall in rising from 120.8 in 1996-2000 to 200.0 in 2006-2010.
- The regional prostate cancer incidence rate increased 16%; the state rate rose 7%.

Figure 16. 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 Camden County or Pamlico County in the 2007-2011 period; there were, however, 56 breast cancer deaths among males statewide.

Breast Cancer Hospitalizations

Table134 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 134. 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
Camden County	**0.2**	**0.5**	**0.3**	**0.1**	**0.3**	**n/a**	**n/a**
Regional Average	**0.2**	**0.2**	**0.3**	**0.2**	**0.2**	**0.2**	**0.1**
Pamlico County	**0.5**	**0.2**	n/a	**0.2**	**0.3**	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 on Inpatient Hospital Utilization and Charges by Principal Diagnosis, in 2011 there were no hospitalizations of Camden County residents anywhere in NC for treatment of malignant neoplasms of the female breast (55).

According to data provided by VBER, VCHO, VROA and AH, there were no inpatient hospitalizations of Camden County residents in 2012 for malignant neoplasms of the female breast (ICD-9 Code 174) at any of those four hospitals.

Table 135 presents data on outpatient/day surgery procedures of the breast performed among Camden County residents at the region's four hospitals in 2010-2012. The ICD-9 Procedure Code 85 (Operations on the Breast), which would include breast biopsy, was used to conduct the data search. There were 16 such procedures conducted among Camden County residents in the period cited.

Table 135. Outpatient Operations on the Breast, Camden County Residents, ARHS Region Hospitals (2010-2012)

Year	ICD-9 Procedure Code 85 Operations			
	VBER	VCHO	VROA	AH
2010	0	0	0	5
2011	0	0	0	6
2012	0	0	0	5

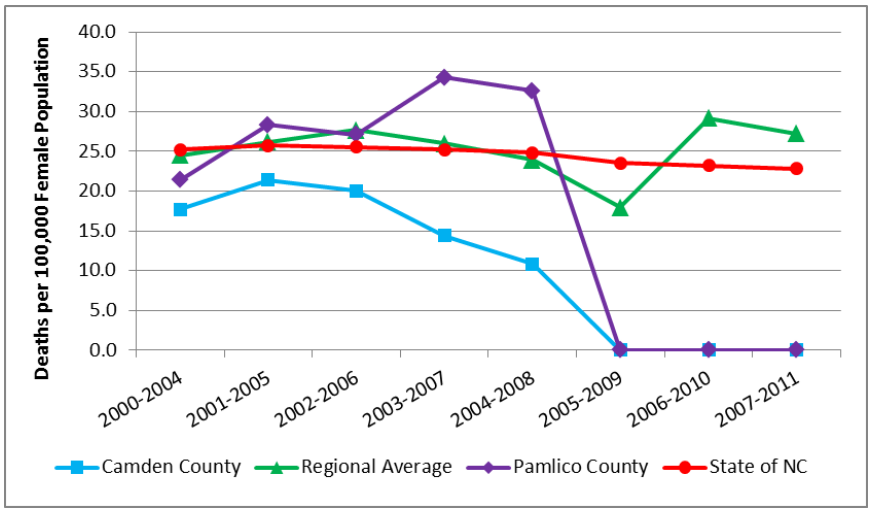
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Breast Cancer Mortality Rate Trend

Figure 17 displays female breast cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The breast cancer mortality rates in Camden County and Pamlico County were unstable or suppressed due to below-threshold numbers of deaths.
- 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.

Figure 17. 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 136 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, 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 136. 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
Camden County	N/A	N/A	N/A	N/A
Regional Average	N/A	N/A	N/A	N/A
Pamlico County	N/A	N/A	N/A	N/A
State of NC	21.5	30.1	11.9	8.5

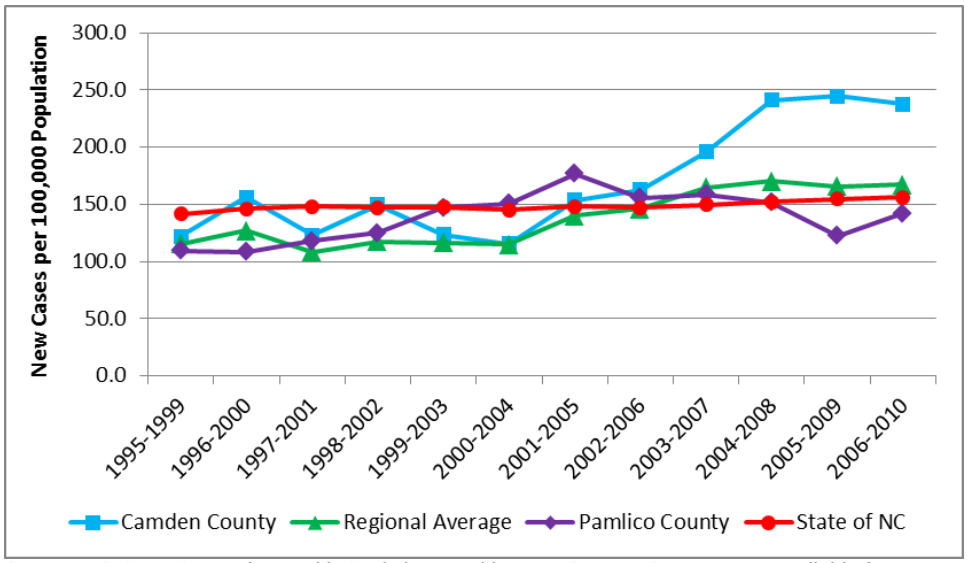
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Breast Cancer Incidence

Figure 18 plots the incidence rate trend for breast cancer.

- Breast cancer incidence rates increased in every jurisdiction over the period cited. In Camden County the overall increase was 95%, from 121.8 in 1995-1999 to 237.5 in 2006-2010. Comparable net increases were 30% in Pamlico County, 45% region-wide, and 10% statewide.

Figure 18. 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.

It is not known whether or not increased surveillance (e.g., breast cancer screening campaigns) played a role in any of the increases in breast cancer incidence.

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

Table137 summarizes hospital discharge rate data for malignant neoplasms of the colon, rectum and anus. Local discharge rates all were unstable. There was a small decrease in the colon cancer discharge rate at the state level.

Table 137. 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
Camden County	**0.3**	**0.5**	**0.5**	**0.2**	**0.4**	**0.1**	**0.4**
Regional Average	**0.5**	**0.7**	**0.6**	**0.5**	**0.5**	**0.3**	**0.4**
Pamlico County	**0.4**	**0.6**	**0.5**	**0.6**	**0.4**	**0.4**	**0.5**
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, four Camden County residents were hospitalized somewhere in NC with diagnoses of malignant neoplasms of the colon, rectum and anus in 2011 (55).

Inpatient hospitalizations of Camden County residents in 2012 for malignant neoplasms of the colon, rectum and anus (ICD-9 Codes 153 and 154) at the four ARHS-region hospitals are displayed in Table 138. In 2012 there was one inpatient admission in those code categories among the four regional hospitals.

Table 138. Inpatient Hospitalizations of Camden County Residents for Malignant Neoplasms of the Colon, Rectum and Anus, ARHS Region Hospitals (2012)

DRG Code	Number of Inpatient Hospitalizations			
	VBER	VCHO	VROA	AH
153	0	0	0	1
154	0	0	0	0

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

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. Table 139 tracks outpatient/day surgery admissions in those categories for Camden County residents at the four regional hospitals. There were 209 total procedures in these categories among Camden County residents in the period from 2010-2012.

Table 139. Outpatient Procedures on Large Intestine, Camden County Residents, ARHS Region Hospitals (2010-2012)

Year	ICD-9 Procedure Code 45.2 and 45.4 Procedures			
	VBER	VCHO	VROA	AH
2010	0	0	0	122
2011	0	0	0	46
2012	0	0	0	41

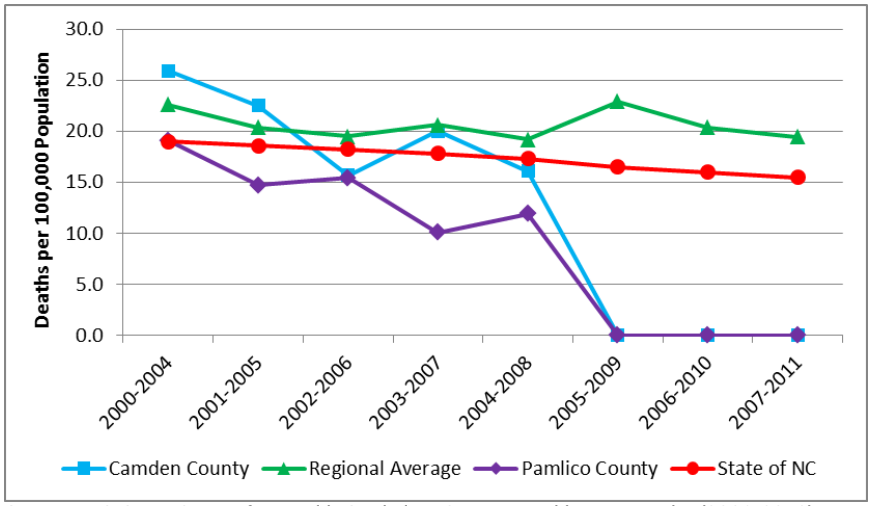
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Colon Cancer Mortality Rate Trend

Figure 19 displays colon cancer mortality rate trends over time for the four jurisdictions being compared in this CHA.

- All of the county colon cancer mortality rates were either unstable or suppressed (suppressed rates are indicated on the graph with a "zero" plot).
- Even the unstable county rates appeared to fall over the period for which there is data.
- The regional colon cancer mortality rate fell 14% over the period cited.
- The NC colon cancer mortality rate declined 18% overall in the period cited.

Figure 19. 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 140 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 (19.0) was 47% higher than the comparable rate for females (12.9).

Table 140. Race/Ethnicity-Specific and Sex-Specific Colon Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

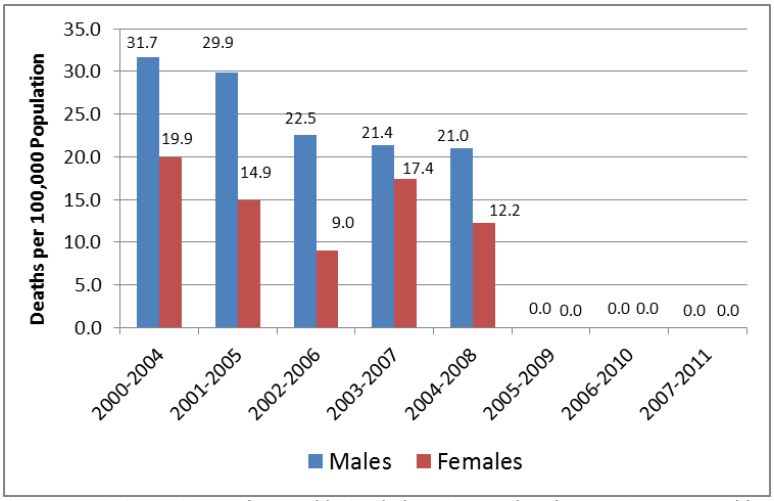
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	6	N/A	3	N/A	0	N/A	0	N/A	6	N/A	3	N/A	9	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
Pamlico County	8	N/A	1	N/A	0	N/A	0	N/A	3	N/A	6	N/A	9	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 20 depicts gender-stratified colon cancer mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- Although all the gender-stratified colon cancer mortality rates for the county were either unstable or suppressed, there did appear to be a sizeable, if varying, difference between the measured rates for men and women, with the rates for men higher than the rates for women. Note that “zero” signifies only that a rate was suppressed.

Figure 20. Sex-Specific Colon Cancer Mortality Rate Trend, Camden County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



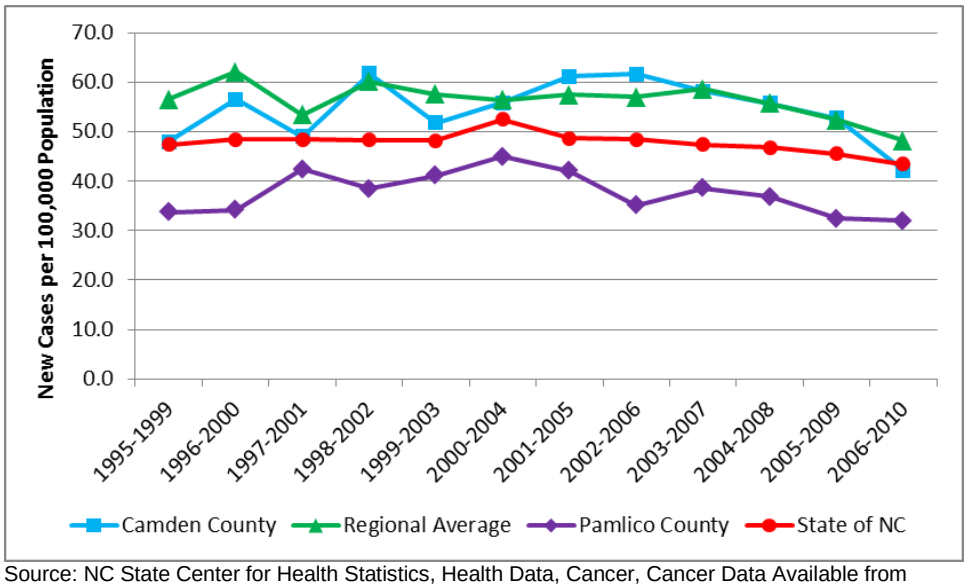
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Colon Cancer Incidence

Figure 21 plots the incidence rate trend for colon cancer.

- The colon cancer incidence rate in Camden County fell over the period cited, but only after a period of significant increase and decrease. The county's colon cancer incidence rate in 2006-2010 (42.2) was 12% lower than the rate in 1995-1999 (48.0).
- The regional colon cancer incidence rate, relatively steady for several aggregate periods, fell 15% overall, to a 10-year low of 48.2.
- The Pamlico County colon cancer incidence rate, relatively steady over most of the period cited, decreased by 5% overall between 1995-1999 and 2006-2010.
- 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 21. 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

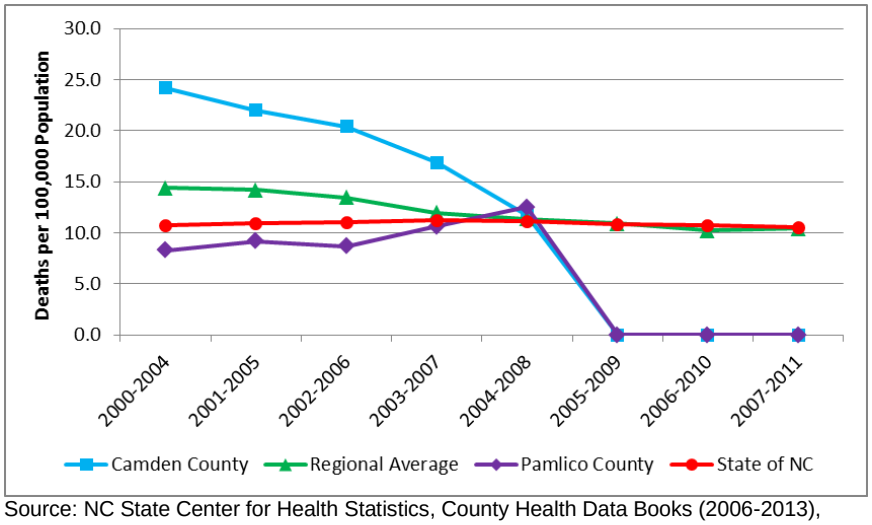
Figure 22 displays pancreas cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- Although the Camden County and Pamlico County pancreas cancer mortality rates all were unstable or suppressed, the available data appeared to indicate a falling mortality

trend in Camden County and a rising trend in Pamlico County. Note that the "zero" plots for the last three aggregate periods represent suppressed rates, not true values of zero.

- 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 22. 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 141 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 in all stratified populations at the local level mortality rates for those groups were suppressed.
- 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 141. Race/Ethnicity-Specific and Sex-Specific Pancreas Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

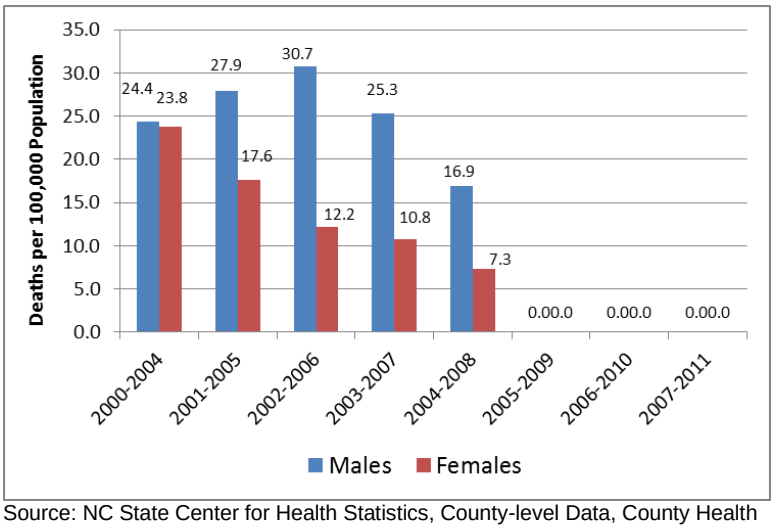
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	4	N/A	1	N/A	0	N/A	0	N/A	2	N/A	3	N/A	5	N/A
Regional Average	7	N/A	6	N/A	0	N/A	0	N/A	5	N/A	8	N/A	13	10
Pamlico County	8	N/A	4	N/A	0	N/A	0	N/A	5	N/A	7	N/A	12	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 23 depicts gender-stratified pancreas cancer mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- Since all the gender-stratified pancreas cancer mortality rates shown were either unstable or suppressed, they should be interpreted with caution, but it does appear that in most periods the mortality rate for men was significantly higher than the rate for women.

Figure 23. Sex-Specific Pancreas Cancer Mortality Rate Trend, Camden 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.

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 (57).

In the 2007-2011 aggregate period cerebrovascular disease was the third leading cause of death in Camden County and Pamlico County, and the fourth leading cause of death in the Albemarle region and the state of NC (cited previously).

Cerebrovascular Disease Hospitalizations

Table 142 presents the hospital discharge rate trend data for cerebrovascular disease (CVD). According to this data, the highest rates of CVD hospitalization were in Pamlico County, and the lowest were in Camden County.

Table 142. Cerebrovascular Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	1.8	1.7	2.0	1.0	1.0	1.6	1.2
Regional Average	3.1	3.0	2.8	2.5	2.4	2.8	2.2
Pamlico County	4.4	4.0	4.8	4.4	3.8	5.3	4.9
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 12 hospital admissions for CVD among Camden 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. Table 143 presents data on 2012 hospitalizations of Camden County residents for diagnoses of cerebrovascular disease. There were six hospitalizations at the four ARHS hospitals for treatment of cerebrovascular disease among Camden County residents in 2012.

Table 143. Inpatient Hospitalizations of Camden County Residents for Cerebrovascular Disease, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations			
		VBER	VCHO	VROA	AH
430-438.9	**Cerebrovascular disease**	0	0	0	6

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Table 144 presents data on the number of emergency department admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 for diagnoses associated with cerebrovascular disease. For the period from 2010-2012 there was a total of 20 ED visits to the region's four hospitals by Camden County residents for diagnoses of cerebrovascular disease.

Table 144. Emergency Department Admissions of Camden County Residents for Cerebrovascular Disease, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
430-438.9	Cerebrovascular disease	3	12	5

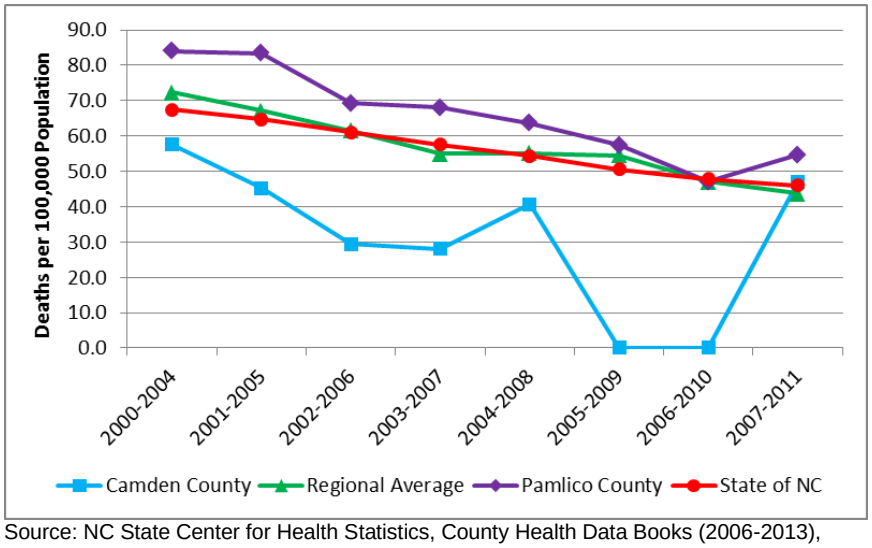
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Cerebrovascular Disease Mortality Rate Trend

Figure 24 displays the CVD mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The CVD mortality rate in Camden County was the lowest rate among the four jurisdictions in every period except the last. It should be noted, however, that except for the first and last aggregate periods, all the rates for Camden County were unstable or suppressed.
- CVD mortality rates in every jurisdiction fell over the period cited. The overall decrease in Camden County was 18%, from 57.6 in 2000-2004 to 47.1 in 2007-2011. Comparable decreases were 35% in Pamlico County, 40% region-wide, and 32% statewide.

Figure 24. 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 145 presents CVD mortality data for the period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of CVD deaths among some stratified populations mortality rates were suppressed for those groups. Note that all stratified rates for Camden County were suppressed.
- Among white non-Hispanic persons, CVD mortality rates were highest in Pamlico County and lowest region-wide.
- In the region and the state, the CVD mortality rate for African American non-Hispanic persons was higher than the rate for white non-Hispanic persons.
- In the region and the state, the CVD mortality rate for males was higher than the comparable rate for females; in Pamlico County the reverse was true.

Table 145. Race/Ethnicity-Specific and Sex-Specific Cerebrovascular Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

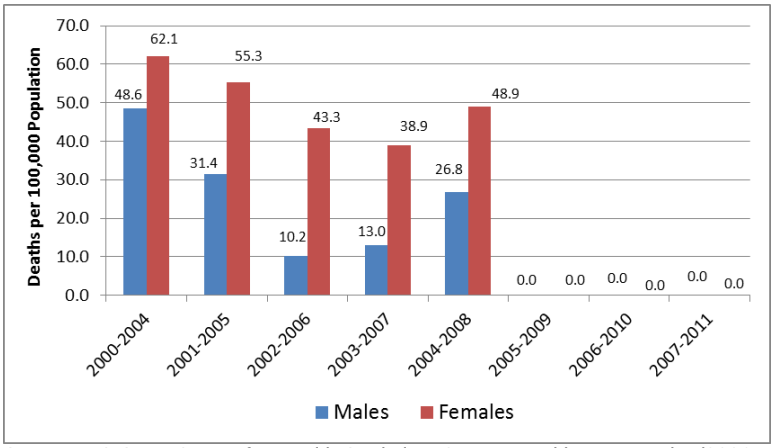
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American,		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	18	N/A	3	N/A	0	N/A	0	N/A	8	N/A	13	N/A	21	47.1
Regional Average	29	37.3	21	67.6	0	N/A	0	N/A	21	64.2	29	40.5	51	43.7
Pamlico County	38	48.8	14	N/A	0	N/A	1	N/A	21	46.9	32	59.8	53	54.7
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 25 depicts gender-stratified CVD mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- The CVD mortality rate among Camden County females apparently was higher than the comparable rate among males in every period until rates were suppressed.

Figure 25. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Camden 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 146 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 all stratified categories at the county level, the NC SCHS suppressed the associated mortality rates, leaving little data to compare.
- 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 146. 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
Camden 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
Pamlico 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/.

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 (58).

CLRD was an unranked cause of death in Camden County due to below-threshold number of deaths in the 2007-2011 aggregate period. At that time CLRD was the fourth leading cause of death in Pamlico County, and the third leading cause of death in the ARHS region and NC (cited previously). It is being discussed at this point on the basis of causing the highest number of deaths in Camden County after cerebrovascular disease.

CLRD/COPD Hospitalizations

Table 147 presents the hospital discharge rate trend data for COPD (the term still used by some data-compiling organizations). The rates in each jurisdiction appeared to vary without clear pattern.

Table 147. COPD Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	2.8	3.7	3.2	3.0	3.2	2.9	3.8
Regional Average	4.3	3.8	4.0	4.3	3.3	3.3	3.7
Pamlico County	2.2	3.7	4.2	4.0	4.4	2.7	1.7
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 38 hospital admissions for COPD among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

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 148 presents data on 2012 inpatient hospitalizations of Camden County residents for diagnoses of COPD. There were 35 inpatient hospitalizations at the four ARHS hospitals for treatment of COPD among Camden County residents in 2012.

Table 148. Inpatient Hospitalizations of Camden County Residents for COPD, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations			
		VBER	VCHO	VROA	AH
490-496	Chronic obstructive pulmonary disease	0	0	13	22

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Table 149 presents data on the number of emergency department admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 for diagnoses associated with COPD. For the period from 2010-2012 there was a total of 232 ED visits to the region's four hospitals by Camden County residents associated with diagnoses of COPD.

Table 149. Emergency Department Admissions of Camden County Residents for COPD, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
490-496	Chronic obstructive pulmonary disease	56	71	105

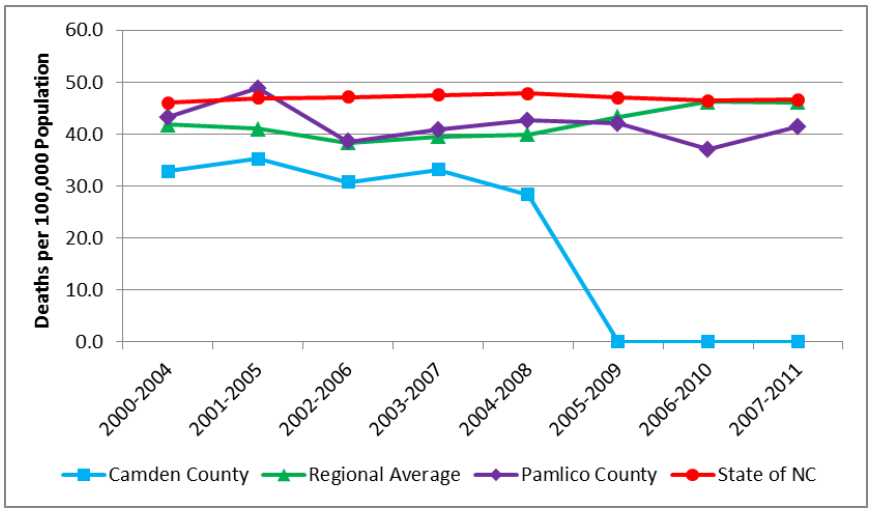
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

CLRD Mortality Rate Trend

Figure 26 displays the CLRD mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The CLRD mortality rate in Camden County was the lowest among the comparator jurisdictions throughout the period cited, with a 14% decrease between 2000-2004 (32.9) and 2004-2008 (28.4), after which time the rates were suppressed. Note that all the earlier rates were technically unstable.
- The CLRD mortality rate in Pamlico also decreased 4% between the endpoints of the period cited.
- The regional CLRD mortality rate increased by 10% between 2000-2004 and 2007-2011, the largest overall change in any of the four jurisdictions.
- At the state level, the CLRD mortality rate was essentially unchanged between 2004-2010 (46.0) and 2007-2011 (46.6).

Figure 26. 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 150 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 stratified populations, mortality rates were suppressed for those groups.
- Region-wide and statewide the CLRD mortality rate for African American non-Hispanic persons was lower than the rate for white non-Hispanic persons.
- There appeared to be a gender difference in CLRD mortality in each jurisdiction, but the direction of the disparity varied from place to place. In the region and the state the rate for males was higher than the rate for females; in Pamlico County the reverse was true.

Table 150. Race/Ethnicity-Specific and Sex-Specific CLRD Mortality
(Single Five-Year Aggregate Period, 2007-2011)

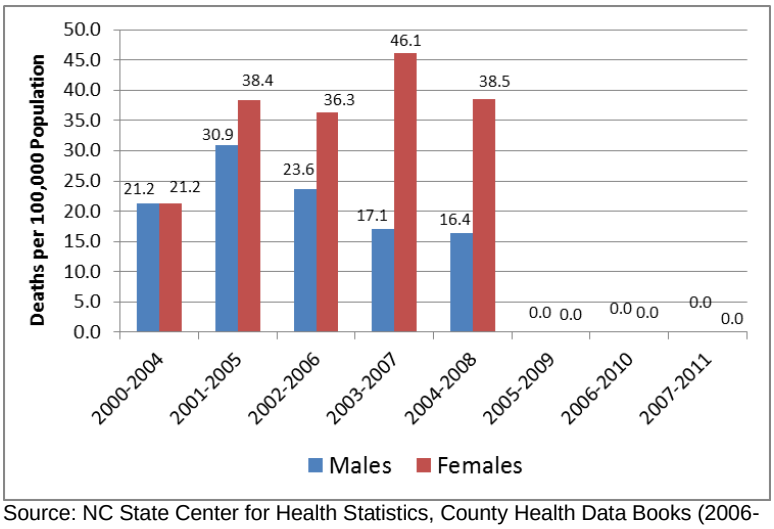
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	17	N/A	0	N/A	0	N/A	0	N/A	7	N/A	10	N/A	17	N/A
Regional Average	41	52.9	9	42.5	0	N/A	0	N/A	29	73.4	22	35.4	51	46.1
Pamlico County	37	45.5	6	N/A	0	N/A	0	N/A	20	38.3	23	40.3	43	41.4
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 27 depicts gender-stratified CLRD mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- In every aggregate period except the first the CLRD mortality rate among Camden County females was higher than the rate for males. It should be noted that all rates were either unstable or suppressed.

Figure 27. Sex-Specific CLRD Mortality Rate Trend, Camden 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 160 presents CLRD mortality rates stratified by gender and race/ethnicity for 2007-2011.

- Because of below-threshold numbers of CLRD deaths in stratified categories, the NC SCHS suppressed the associated mortality rates, leaving little data to compare.
- 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.

Table 151. 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
Camden 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
Pamlico County	N/A	N/A	N/A	N/A	45.9	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/.

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 will be covered subsequently.)

Other (non-motor vehicle) unintentional injury was an unranked cause of death in Camden County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the sixth leading cause of death in the ARHS region, and the fifth in Pamlico County and 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 Camden County after CLRD.

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 152 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 Pamlico County was the highest of the four listed in every year cited. The discharge rate for Camden County was the lowest in every year cited.

Table 152. Injuries and Poisonings Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	4.2	5.4	3.4	3.0	1.8	2.6	2.4
Regional Average	6.6	6.3	6.3	5.6	5.3	5.6	5.2
Pamlico County	9.5	11.8	9.9	11.9	8.7	9.3	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 24 injury and poisoning hospitalizations among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

The region's hospitals maintain records of hospitalizations and ED admissions in an ICD-9 category called Injury and Poisoning (ICD-9 Codes 800-999).

Table 153 presents data on 2012 inpatient hospitalizations of Camden County residents for diagnoses of injury or poisoning. Note that this list does not include all diagnoses in the category. There were 20 inpatient hospitalizations at the four ARHS hospitals for treatment of injuries and poisoning among Camden County residents in 2012.

Table 153. Inpatient Hospitalizations of Camden County Residents for Injury and Poisoning, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations			
		VBER	VCHO	VROA	AH
800-829	Fractures	0	0	1	8
830-839	Dislocations	0	0	0	0
840-848	Sprains and strains	0	1	0	1
850-854	Intracranial injury	0	0	0	0
870-897	Open wounds	0	0	0	0
910-919	Superficial injury	0	0	0	0
930-939	Foreign body entering through orifice	0	0	0	0
960-979	Poisoning by drugs and medicinal substances	0	0	0	3
990--995	Other effects of external causes	0	0	0	0
996-999	Complications of surgical and medical care	0	2	0	4

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Table 154 presents data on the number of emergency department (ED) admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 for diagnoses associated with injury and poisoning.

- For the period from 2010-2012 there was a total of 2,048 and an annual average of 683 ED visits to the region's four hospitals by Camden County residents for diagnoses of injury and poisoning in the categories listed below.

Table 154. Emergency Department Admissions of Camden County Residents for Injury and Poisoning, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
800-829	Fractures	81	85	84	250
830-839	Dislocations	13	17	15	45
840-848	Sprains and strains	131	153	178	462
850-854	Intracranial injury	11	13	12	36
860-869	Internal injury	0	0	2	2
870-897	Open wounds	112	139	126	377
910-919	Superficial injury	36	39	42	117
920-924	Contusions	102	107	135	344
925-929	Crushing injury	5	3	0	8
930-939	Foreign body entering through orifice	8	16	19	43
940-949	Burns	11	7	11	29
950-957	Injury to nerves and spinal cord	0	0	1	1
958-959	Traumatic complications	46	52	60	158
960-979	Poisoning by drugs and medicinal substances	5	8	9	22
980-989	Toxic effects of chiefly nonmedicinal substances	8	6	6	20
990--995	Other effects of external causes	30	38	27	95
996-999	Complications of surgical and medical care	16	9	14	39
TOTAL		615	692	741	2,048

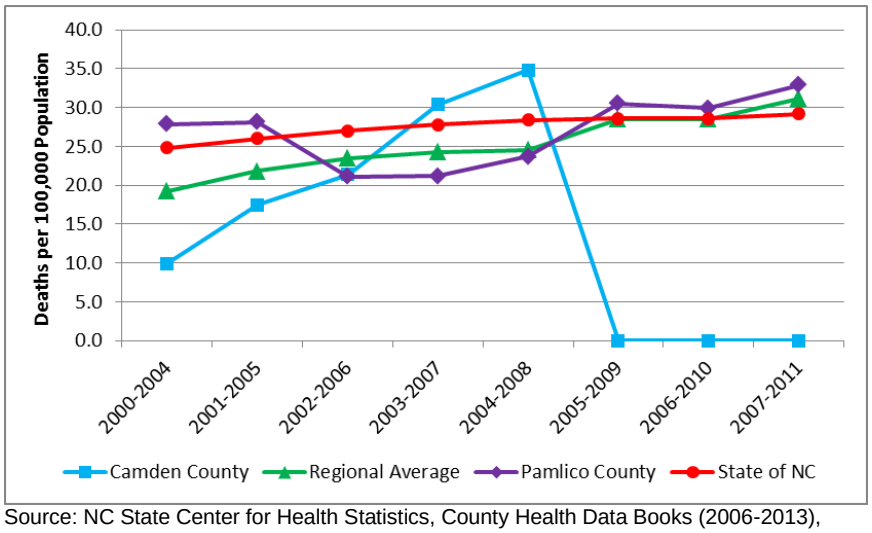
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

All Other Unintentional Injury Mortality Rate Trend

Figure 28 displays the all other unintentional injury mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The mortality rate for all other unintentional injuries in Camden County was rising dramatically to the highest level among the four jurisdictions (38.4 in 2004-2008) when it began being suppressed.
- In Pamlico County the last four rates were stable and indicated a rising mortality rate trend.
- 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.
- At the state level, the all other unintentional injury mortality rate rose 18% over the period cited.

Figure 28. 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 155 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 155. Race/Ethnicity-Specific and Sex-Specific All Other Unintentional Injury Mortality (Single Five-Year Aggregate Period, 2007-2011)

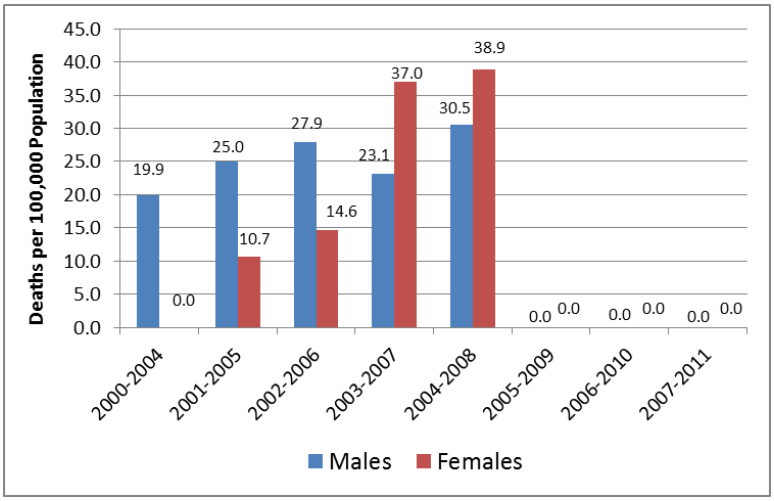
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	12	N/A	1	N/A	1	N/A	1	N/A	7	N/A	8	N/A	15	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
Pamlico County	24	35.4	4	N/A	0	N/A	0	N/A	18	N/A	10	N/A	28	32.9
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 29 depicts gender-stratified all other unintentional injury mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- Although all the gender-stratified mortality rates were unstable or suppressed, the data appeared to indicate a significant and shifting gender disparity in mortality from all other unintentional injuries. In the first three aggregate periods the rate for males was higher than the rate for females. In 2000-2004 there were no deaths among females in Camden County due to non-motor vehicle injury. In 2003-2007 and 2004-2008 the rate for females exceeded the comparable rate for males.

Figure 29. Sex-Specific All Other Unintentional Injury Mortality Rate Trend, Camden 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).

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 an unranked cause of death in Camden County, the eighth leading cause of death in the ARHS region, the seventh in Pamlico County, and the sixth in NC in the 2007-2011 aggregate period (cited previously). Alzheimer's disease is being discussed at this point on the basis of causing the highest number of deaths in Camden County after all other unintentional injuries.

Alzheimer's Disease Hospitalizations

At the present time the NC SCHS does not track Alzheimer's disease-related hospitalizations.

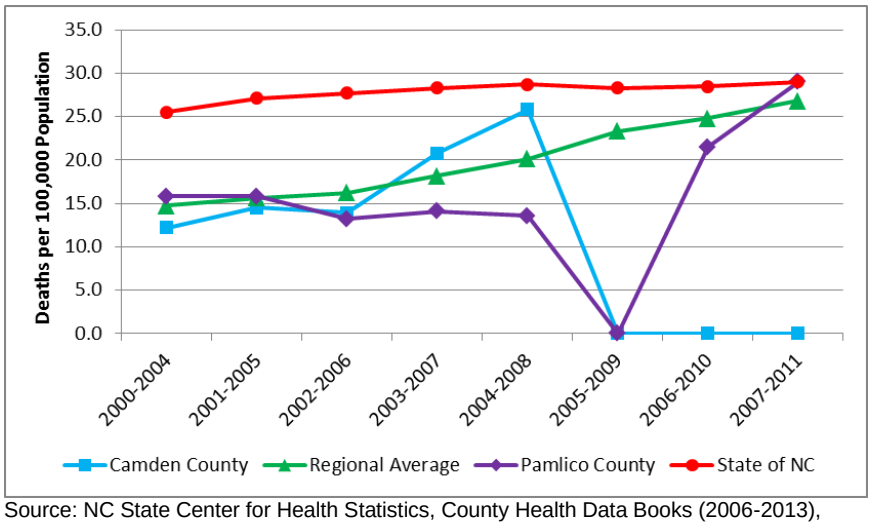
Alzheimer's disease is coded 331.0 in the ICD-9 system; however, it can be difficult to diagnose and may first be identified as another form of dementia, which bear the ICD-9 codes 331.1, 331.2, and 290, 294.1 and 294.2. According to data provided by the four regional hospitals, one resident of Camden County has hospitalized for a diagnosis in those code categories in 2012. In addition, there were two ED admissions of Camden County residents for conditions diagnosed in those code categories in the period 2010-2012.

Alzheimer's Disease Mortality Rate Trend

Figure 30 displays the Alzheimer's disease mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- Camden County Alzheimer's disease mortality rates over the period shown all were unstable or suppressed.
- Region-wide the Alzheimer's disease mortality rate rose 83%, from 14.7 in 2000-2004 to 26.9 in 2007-2011.
- The Pamlico County Alzheimer's disease mortality rate, like the rate in Camden, rose dramatically to a stable high in 2007-2011 after a previous period of instability.
- The Alzheimer's disease mortality rate statewide rose 14% overall during the period cited.

Figure 30. 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 156 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 most stratified populations at the local level, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons in the comparator jurisdictions, the Alzheimer's disease mortality rate was highest statewide and lowest region-wide.
- 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 156. Race/Ethnicity-Specific and Sex-Specific Alzheimer's Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

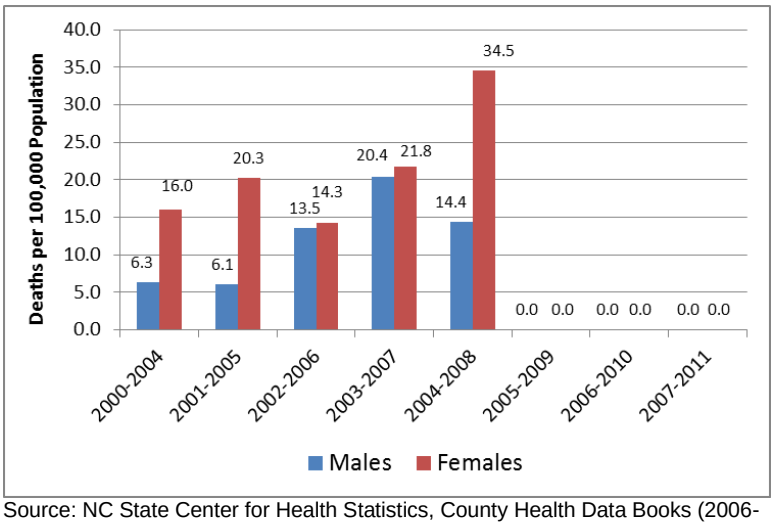
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	9	N/A	2	N/A	0	N/A	0	N/A	1	N/A	10	N/A	11	N/A
Regional Average	20	26.3	10	30.3	0	N/A	0	N/A	9	N/A	21	28.5	30	26.9
Pamlico County	21	28.7	6	N/A	0	N/A	0	N/A	3	N/A	24	40.4	27	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 31 depicts gender-stratified Alzheimer's disease mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- Gender-stratified Alzheimer's disease mortality rates in Camden County were quite erratic, likely due to being based on small and changing numbers of events. It would appear, nevertheless, that the rate for females exceeded the rate for males in every aggregate period with a rate. This disproportional pattern of gender-based Alzheimer's disease mortality is common throughout NC.

Figure 31. Sex-Specific Alzheimer's Disease Mortality Rate Trend, Camden 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.

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 (60).

Diabetes was an unranked cause of death in Camden County and Pamlico County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the fifth leading cause of death in the ARHS region, and the seventh 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 Camden County after Alzheimer's disease.

Diabetes Mellitus Hospitalizations

Table 157 presents hospital discharge rate trend data for diabetes. The rates for Camden County, although mostly unstable, were the lowest among the four jurisdictions in every year.

Table 157. Diabetes Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	**1.0**	**0.8**	**0.6**	1.5	1.1	**0.8**	**0.2**
Regional Average	1.9	1.7	1.5	1.7	1.2	1.6	1.5
Pamlico County	1.3	1.9	1.9	2.0	1.3	2.2	2.3
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 two hospitalizations for diabetes among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

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 from the four regional hospitals, in 2012 there were six inpatient hospitalizations of Camden County residents for diagnoses of diabetes mellitus.

Table 158 presents data on the number of emergency department admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 for diagnoses associated with diabetes. For the period from 2010-2012 there was a total of 41 ED admissions to the region's four hospitals by Camden County residents for diagnoses associated with diabetes.

Table 158. Emergency Department Admissions of Camden County Residents for Diabetes Mellitus, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
250.0-250.9	Diabetes mellitus	9	16	16

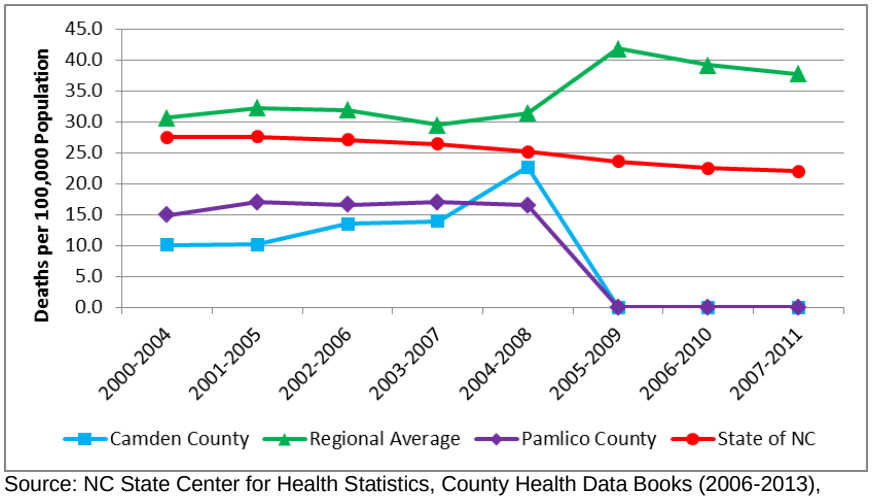
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Diabetes Mellitus Mortality Rate Trend

Figure 32 displays the diabetes mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The diabetes mortality rate in Camden County was lower than the regional and state rates and the rate for Pamlico County for the first three aggregate periods. The rate in Camden County rose from 13.9 to 22.7 between 2003-2007 and 2004-2008 before being suppressed. It should be noted that all the plotted rates for both counties were unstable.
- The diabetes mortality rate for the region increased toward the end of the period cited, and was 23% higher in 2007-2011 than in 2000-2004 (30.7 vs. 37.8)
- The diabetes mortality rate for NC as a whole decreased 20% over the period cited, from 27.5 to 22.0.

Figure 32. 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 159 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 Camden County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons and African American non-Hispanic persons diabetes mortality rates were higher in the region than statewide.
- Statewide, the diabetes mortality rate was higher among African American non-Hispanics than white non-Hispanics and higher among males than among females.

Table 159. Race/Ethnicity-Specific and Sex-Specific Diabetes Mellitus Mortality (Single Five-Year Aggregate Period, 2007-2011)

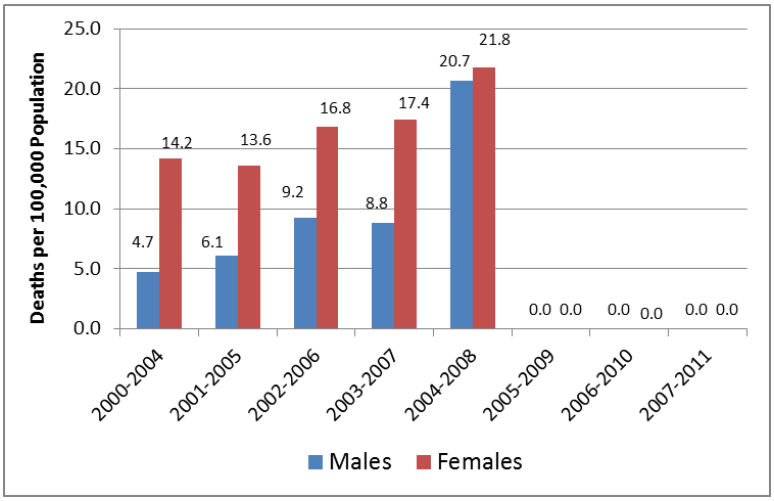
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	8	N/A	3	N/A	0	N/A	0	N/A	6	N/A	5	N/A	11	N/A
Regional Average	15	26.9	16	52.5	0	N/A	0	N/A	14	61.1	18	36.0	31	37.8
Pamlico County	10	N/A	5	N/A	0	N/A	0	N/A	9	N/A	6	N/A	15	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 33 depicts gender-stratified diabetes mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- The diabetes mortality rate among Camden County females has been higher than the comparable rate among males, but the gap shrank as the mortality rate among males grew dramatically. Note that all the rates in the graph were unstable or suppressed.

Figure 33. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Camden 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.

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). Statewide diabetes mortality rates were lowest among Hispanic females (7.0), Hispanic males (11.4) and white non-Hispanic females (14.2).

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 (61,62).

Nephritis/nephrotic syndrome/nephrosis was an unranked cause of death in Camden County and Pamlico County in 2007-2011 due to below-threshold numbers of deaths. It was 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 Camden County after diabetes.

Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations

Table 160 presents the hospital discharge rate trend data for the above named composite of kidney disorders. According to this data, Camden County had the lowest rate of kidney disease hospitalizations throughout the period cited, although all the Camden rates were unstable.

Table 160. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	**0.6**	**0.5**	**0.7**	**0.1**	**0.5**	**0.7**	**0.6**
Regional Average	1.3	1.4	1.3	1.0	1.0	1.2	1.3
Pamlico County	1.0	1.5	1.7	1.6	1.8	2.1	2.7
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 six hospital admissions for nephritis, nephrotic syndrome and nephrosis among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

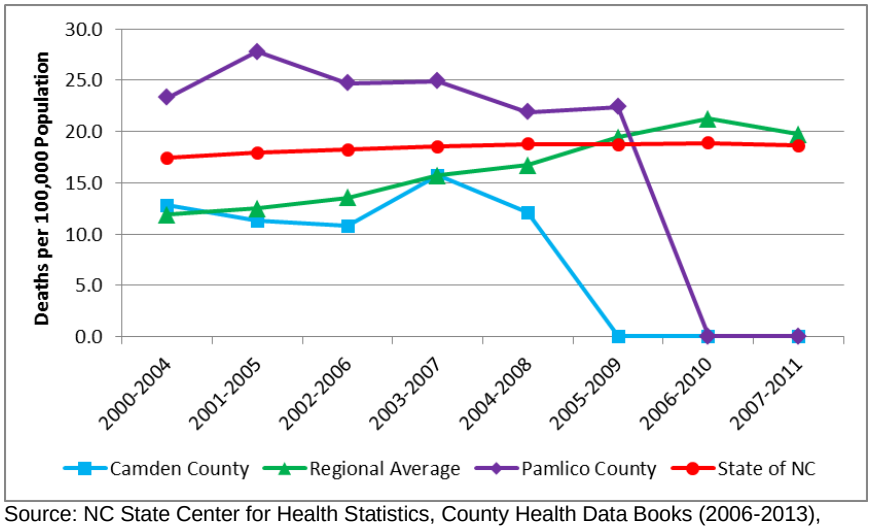
Diagnoses of nephritis, nephrotic syndrome and nephrosis are coded 580-589 in the ICD-9 system. According to data provided by the four regional hospitals, there were seven hospitalizations of Camden County residents with diagnoses in these code categories in 2012. Additionally, in the period 2010-2012 Camden County residents made a total of six visits to the emergency departments of the four regional hospitals for diagnoses associated with kidney disease.

Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend

Figure 34 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 Pamlico County and lowest in Camden County for most of the period cited. (All but the last two data points for Pamlico County represented stable rates, but all the rates for Camden County were unstable or 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 34. 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 161 presents kidney disease mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of kidney disease deaths among stratified populations in Camden County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons and African American non-Hispanic persons kidney disease mortality rates were lower region-wide than in NC.
- 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 161. Race/Ethnicity-Specific and Sex-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality
(Single Five-Year Aggregate Period, 2007-2011)

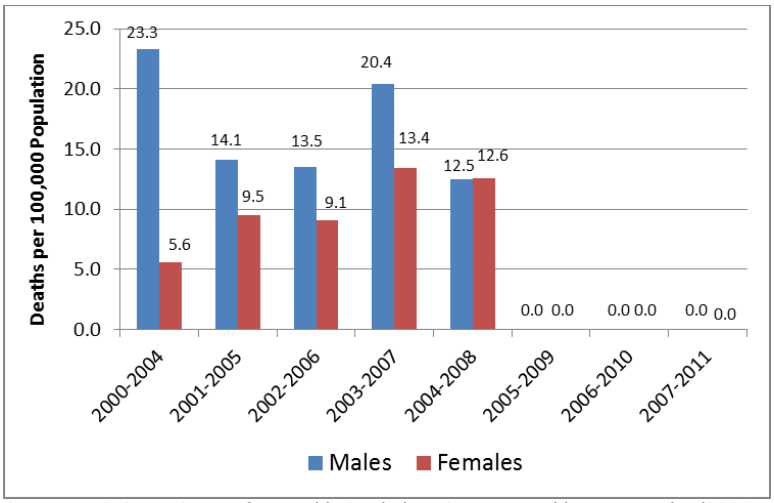
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	8	N/A	3	N/A	0	N/A	0	N/A	9	N/A	2	N/A	11	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
Pamlico County	10	N/A	7	N/A	0	N/A	0	N/A	7	N/A	10	N/A	17	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 35 depicts gender-stratified kidney disease mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- According to the graph, the kidney disease mortality rate among Camden County males appeared to be higher than the comparable rate among Camden County females for four of the five time periods for which there were rates for both. However, it should be noted that all the gender-stratified kidney disease mortality rates in the graph were either unstable or suppressed.

Figure 35. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Camden 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).

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 (63).

Pneumonia/influenza was an unranked cause of death in Camden County and Pamlico County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the eleventh leading cause of death in the ARHS region and ninth 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 Camden County after kidney disease.

Pneumonia and Influenza Hospitalizations

Table 162 presents hospital discharge rate trend data. It appeared from this data that no jurisdiction demonstrated a pattern of pneumonia/influenza hospitalizations.

Table 162. Pneumonia and Influenza Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	3.0	3.9	1.8	2.0	2.0	2.0	2.0
Regional Average	4.1	3.5	2.6	3.0	2.9	2.7	2.8
Pamlico County	4.8	3.7	3.7	2.6	2.7	2.6	2.0
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 20 hospital admissions for pneumonia/influenza among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

The ICD-9 codes for pneumonia are 480-487 and the code for influenza is 488. According to 2012 data provided by VBER, VCHO, VROA and AH, 19 Camden County residents were hospitalized at those four hospitals with diagnoses of pneumonia. There were no hospitalizations of Camden County residents associated with influenza in that year.

Table 163 presents data on the number of emergency department (ED) admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 associated with a diagnosis of pneumonia or influenza. For the period from 2010-2012 there was a total of 100 ED visits to the region's four hospitals by Camden County residents with a diagnosis of pneumonia, and one with a diagnosis of influenza.

Table 163. Emergency Department Admissions of Camden County Residents for Pneumonia and Influenza, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
480-487	Pneumonia	19	45	36	100
488	Influenza	0	1	0	1

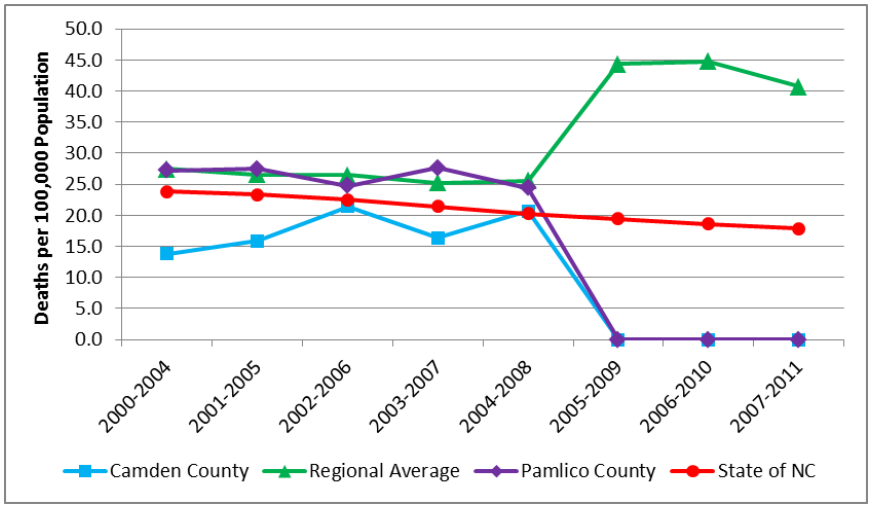
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Pneumonia and Influenza Mortality Rate Trend

Figure 36 displays the pneumonia/influenza mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The pneumonia/influenza mortality rate in Camden County appeared to be rising (from 13.8 in 2000-2004 to 20.7 in 2004-2008, or 50%) until the last three rates were suppressed due to below-threshold numbers of deaths.
- The pneumonia/influenza mortality rate in Pamlico County seemed to be falling until the same kind of rate suppression occurred. The decrease between the 2000-2004 rate (27.2) and the 2004-2008 rate (24.4) was 10%.
- 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 number. Large mortality rate shifts at various times in various places are not uncommon for causes of death based on infectious agents.
- At the state level, the pneumonia/influenza mortality rate fell gradually to a current low 17.9.

Figure 36. 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 164 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 in Camden County and elsewhere, 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 region-wide and statewide, with males suffering the higher rates.

Table 164. Race/Ethnicity-Specific and Sex-Specific Pneumonia and Influenza Mortality (Single Five-Year Aggregate Period, 2007-2011)

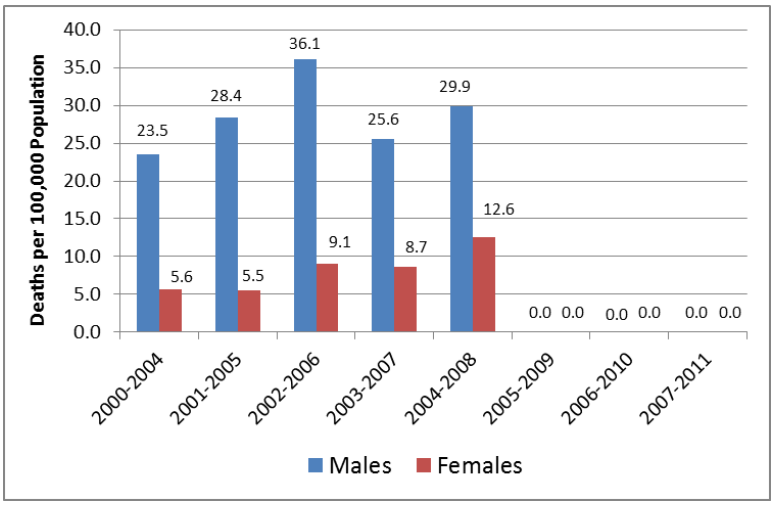
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	7	N/A	2	N/A	0	N/A	0	N/A	4	N/A	5	N/A	9	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
Pamlico County	11	N/A	3	N/A	0	N/A	0	N/A	7	N/A	7	N/A	14	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 37 depicts gender-stratified pneumonia/influenza mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- It appeared that there has been a long-term gender difference in the pneumonia/influenza mortality rates in Camden County, with the rate for males as many as four times the rate for females. It should be noted however, that all the rates for the period cited were either unstable or suppressed.

Figure 37. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Camden 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).

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.

Unintentional motor vehicle injury was an unranked cause of death in Camden County in 2007-2011 due to below-threshold numbers of deaths. It was the seventh leading cause region-wide, the sixth in Pamlico County, and the tenth 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 Camden County after pneumonia and influenza.

Unintentional Motor Vehicle Injury Hospitalizations

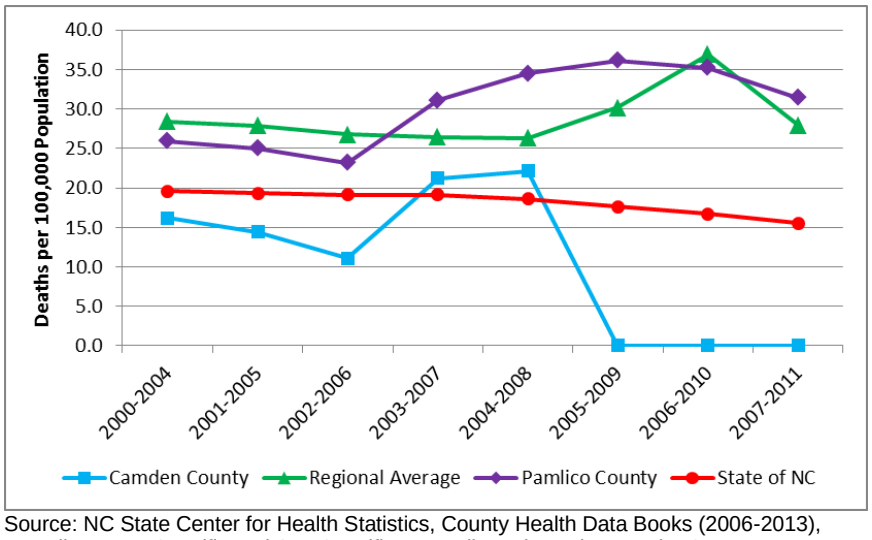
As noted previously in the discussion of all other unintentional injuries, neither the NC SCHS nor the four regional hospitals participating in this assessment use a diagnosis specific for hospitalizations caused by motor vehicle injury. Instead, hospitalizations for injuries of all kinds appear in a category called *Injuries and Poisonings*. Hospital discharge data and emergency department visit data relative to that category were presented previously in the section describing mortality due to all other unintentional injuries.

Unintentional Motor Vehicle Injury Mortality Rate Trend

Figure 38 displays the unintentional motor vehicle injury mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The unintentional motor vehicle injury mortality rate in Pamlico County was stable in the last four aggregate periods when it was the highest or second-highest.
- When not suppressed, the unintentional motor vehicle injury mortality rates for Camden County, although unstable, were the lowest or second-lowest. Before being suppressed, the Camden County rate appeared to be rising.
- At the state level, the unintentional motor vehicle injury mortality rate fell 21%.

Figure 38. 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 165 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 Camden County and elsewhere, mortality rates were suppressed for those groups, leaving little data to compare.
- The unintentional motor vehicle injury mortality rate was higher across the ARHS region than statewide.
- Statewide the motor vehicle injury mortality rates for African American non-Hispanics and white non-Hispanics 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 rates likely are unstable.
- Statewide, the unintentional motor vehicle injury rate for males was 2.7 *times* the comparable rate for females.

Table 165. Race/Ethnicity-Specific and Sex-Specific Unintentional Motor Vehicle Injury Mortality
(Single Five-Year Aggregate Period, 2007-2011)

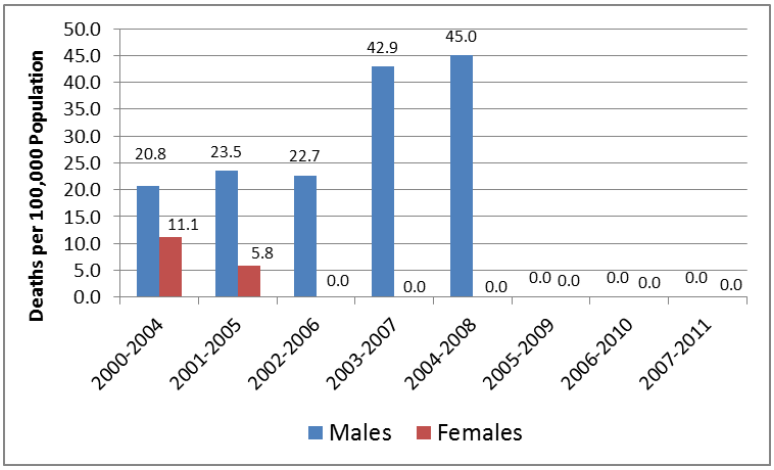
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	7	N/A	1	N/A	0	N/A	0	N/A	7	N/A	1	N/A	8	N/A
Regional Average	12	26.5	8	41.3	0	N/A	0	N/A	16	54.2	4	N/A	20	27.9
Pamlico County	17	N/A	4	N/A	0	N/A	0	N/A	12	N/A	9	N/A	21	31.4
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 39 depicts gender-stratified unintentional motor vehicle injury mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- The unintentional motor vehicle injury mortality rate among males in the county was much higher than the comparable rate for females in every period cited. In fact, the rate for females was true zero in 2002-2006, 2003-2007 and 2004-2008. Note, however, that all of the rates that were not suppressed were unstable.

Figure 39. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Camden 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 unintentional 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). All unintentional motor vehicle injury mortality rates statewide were lowest among Hispanic females (6.5), 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 166 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).
- The age-stratified mortality rates in all the counties were unstable. The regional rates likely also were unstable, since they were based on unstable county rates.

Table 166. 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
Camden County	**8**	**16.4**	**3**	**21.4**	**1**	**8.9**	**2**	**11.4**
Regional Average	**23**	**24.5**	**3**	**15.3**	**7**	**32.7**	**8**	**23.7**
Pamlico County	21	33.0	**n/a**	**n/a**	**6**	**47.3**	**11**	**45.0**
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 167 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 Camden County the six-year average of alcohol-related traffic crashes was 6.8%. Region-wide the comparable average was 5.7%, in Pamlico County it was 7.2%, and in NC it was 5.3%

Table 167. 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
Camden County	135	6	4.4	124	14	11.3	146	10	6.9	172	13	7.6	164	13	7.9	140	4	2.9
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
Pamlico County	243	19	7.8	236	18	7.6	224	18	8.0	200	10	5.0	213	14	6.6	180	15	8.3
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 168 presents detail on the outcomes of alcohol-related crashes in 2011.

- In 2011 in Camden County 2.9% of all crashes, 1.0% of all property damage only crashes, 7.9% of non-fatal crashes, and no fatal crashes were alcohol-related.
- 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 168. 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
Camden County	140	4	2.9	102	1	1.0	38	3	7.9	0	0	0.0
Regional Average	347	18	5.0	236	8	2.9	108	9	9.0	3	1	28.9
Pamlico County	180	15	8.3	128	12	9.4	50	2	4.0	2	1	50.0
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 169 displays data on automobile/pedestrian crashes in Camden County over the period from 2006-2010.

- There were all together seven automobile/pedestrian crashes during the period.
- The most common location for automobile/pedestrian crashes (6 of 7) was non-intersection sites.
- The most common type of automobile/pedestrian crash was “unusual circumstances” (4 of 7).
- The motorists in automobile/pedestrian crashes were most frequently in the 50-59 and 70+ age groups (each 2 of 7).
- The pedestrians in automobile/pedestrian crashes were most frequently in the 41-50 age group (3 of 7).
- Excessive speed was indicated in none of the crashes.
- None of the crashes was deemed hit-and-run.
- The motorist was at fault in two of the crashes and the pedestrian was at fault in one of the crashes. Fault was not coded in four of the crashes.

Table 169. Automobile/Pedestrian Crashes, Camden County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Intersection	0	0	0	1	0	1
Non-Intersection	2	1	1	0	2	6
Total	2	1	1	1	2	7
Crash Type						
Pedestrian in Roadway – Circumstances Unknown	0	0	0	1	0	1
Unusual Circumstances	1	1	0	0	2	4
Walking Along Roadway	0	0	1	0	0	1
Working or Playing in Roadway	1	0	0	0	0	1
Total	2	1	1	1	2	7
Driver Age Group						
0-19	0	0	0	0	1	1
40-49	0	0	0	0	1	1
50-59	0	0	1	1	0	2
70+	2	0	0	0	0	2
Unknown	0	1	0	0	0	1
Total	2	1	1	1	2	7
Pedestrian Age Group						
16-20	0	0	0	0	1	1
31-40	0	0	0	1	0	1
41-50	2	0	1	0	0	3
51-60	0	0	0	0	1	1
61-79	0	1	0	0	0	1
Total	2	1	1	1	2	7
Excessive Speed Indicated						
No	2	1	1	1	2	7
Total	2	1	1	1	2	7
Hit and Run						
No	2	1	1	1	2	7
Total	2	1	1	1	2	7
Fault						
Motorist at Fault	2	0	0	0	0	2
Pedestrian at Fault	0	1	0	0	0	1
Fault Not Coded	0	0	1	1	2	4
Total	2	1	1	1	2	7

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 170 displays data on automobile/bicycle crashes in Camden County in the period from 2006-2010.

- There were all together four automobile/bicycle crashes in Camden County during the period.
- The most common location for automobile/bicycle crashes (3 of 4) was non-intersection sites.
- There were two different types of *reported* crashes: loss of control/turning error and motorist overtaking bicyclist.
- The motorists in automobile/bicycle crashes were most frequently in the 60-69 age group (2 of 3).
- The cyclists in automobile/bicycle crashes were in a variety of age groups.
- Excessive speed was not indicated in any of the three crashes, and none was deemed hit-and-run.

- The motorist was at fault in one automobile/bicycle crash, but no bicyclists were deemed at fault. Fault was not coded or was unknown in three crashes.

Table 170. Automobile/Bicycle Crashes, Camden County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Intersection	n/a	0	0	n/a	1	1
Non-Intersection	n/a	1	1	n/a	1	3
Total	n/a	1	1	n/a	2	4
Crash Type						
Loss of Control / Turning Error	n/a	0	0	n/a	1	1
Motorist Overtaking Bicyclist	n/a	1	1	n/a	0	2
Not Reported	n/a	0	0	n/a	1	1
Total	n/a	1	1	n/a	2	4
Driver Age Group						
40-49	n/a	1	0	n/a	0	1
50-59	n/a	0	0	n/a	1	1
60-69	n/a	0	1	n/a	1	2
Total	n/a	1	1	n/a	2	4
Bicyclist Age Group						
6-10	n/a	0	0	n/a	1	1
11-15	n/a	0	0	n/a	1	1
30-39	n/a	0	1	n/a	0	1
50-59	n/a	1	0	n/a	0	1
Total	n/a	1	1	n/a	2	4
Excessive Speed Indicated						
No	n/a	1	1	n/a	2	4
Total	n/a	1	1	n/a	2	4
Hit and Run						
No	n/a	1	1	n/a	2	4
Total	n/a	1	1	n/a	2	4
Fault						
Motorist at Fault	n/a	1	0	n/a	0	1
Fault Not Coded	n/a	0	1	n/a	2	3
Total	n/a	1	1	n/a	2	4

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.

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 (64). 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 Camden County and Pamlico 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 Camden County after unintentional motor vehicle injuries.

Septicemia Hospitalizations

Table 171 presents hospital discharge rate trend data for septicemia. According to this data, the septicemia discharge rate in every jurisdiction was higher in 2011 than in 2005, in some cases twice as high.

Table 171. Septicemia Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	**0.7**	**0.4**	**0.7**	**0.1**	**0.6**	**0.5**	1.7
Regional Average	**1.4**	**1.7**	**1.5**	**1.5**	**1.4**	**1.9**	**3.0**
Pamlico County	1.5	1.7	2.2	1.9	2.2	3.2	3.6
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 17 hospital admissions for septicemia among Camden County residents; this figure includes hospitalizations anywhere in NC (55).

The ICD-9 Code for septicemia is 038. Table 172 presents data on hospitalizations of Camden County residents for a diagnosis of septicemia. There were 17 such hospitalizations of Camden County residents in the four ARHS region hospitals in 2012.

Table 172. Inpatient Hospitalizations of Camden County Residents for Septicemia, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations			
		VBER	VCHO	VROA	AH
038	**Septicemia**	0	0	1	16

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

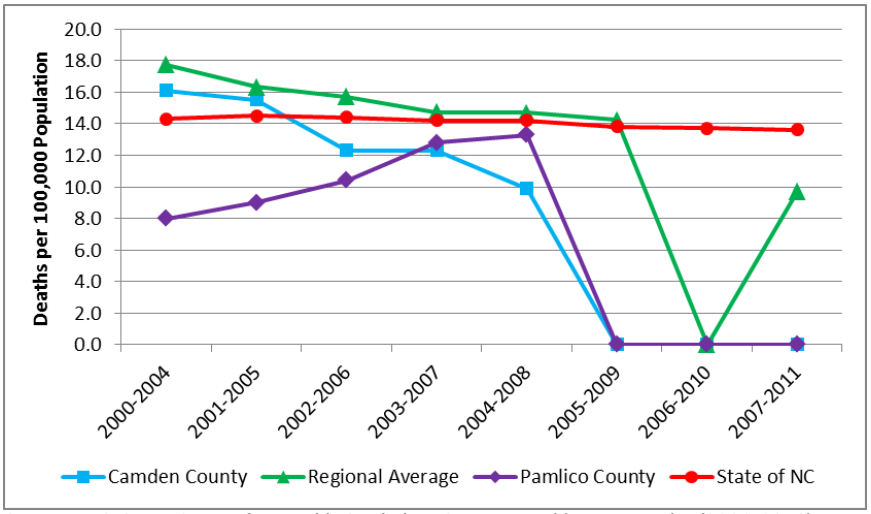
Additionally, data from the four regional hospitals for the period 2010-2012 revealed that only one Camden County resident was admitted to one of their EDs with a diagnosis of septicemia.

Septicemia Mortality Rate Trend

Figure 40 displays the septicemia mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The ARHS region had the highest septicemia mortality rate in every period cited except the last two. The regional rate decreased 17% to the point in 2006-2010 when all the county rates upon which it was based were suppressed.
- The septicemia mortality rate in Camden County, which was technically unstable for all data points shown, was lower than the regional rate throughout the period cited, and lower than the state rate after the first two aggregate periods.
- The septicemia mortality rate for NC as a whole decreased 5% between 2000-2004 and 2007-2011.

Figure 40. 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 173 presents septicemia mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of septicemia disease deaths among stratified populations in Camden 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-Hispanics than among white non-Hispanics.

Table 173. Race/Ethnicity-Specific and Sex-Specific Septicemia Mortality (Single Five-Year Aggregate Period, 2007-2011)

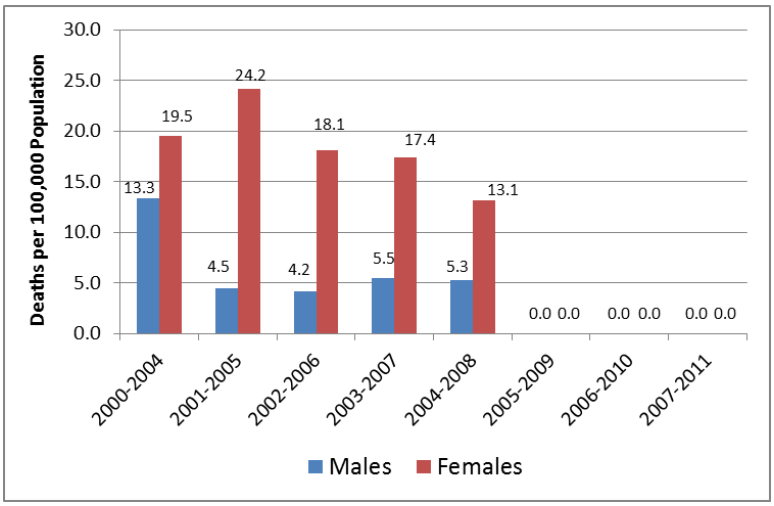
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	3	N/A	3	N/A	0	N/A	0	N/A	3	N/A	3	N/A	6	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
Pamlico County	12	N/A	4	N/A	0	N/A	0	N/A	7	N/A	9	N/A	16	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 41 depicts gender-stratified septicemia mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- It appears from the data below that in Camden County the septicemia mortality rate for females was higher than the rate for males even as the rate for females decreased over time. It should be noted that all the septicemia mortality rates for the period cited were either unstable or suppressed.

Figure 41. Sex-Specific Septicemia Mortality Rate Trend, Camden 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).

Suicide

Suicide was an unranked cause of death in Camden County and Pamlico 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 Camden County after septicemia.

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 Camden County residents with that ICD-9 code at any of the four ARHS hospitals in 2012. There were, however, 13 emergency department visits by Camden County residents coded for suicide ideation, which are listed in Table 174.

Table 174. Emergency Department Admissions of Camden County Residents for Suicide Ideation, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
V62.84	Suicide ideation	5	3	5	13

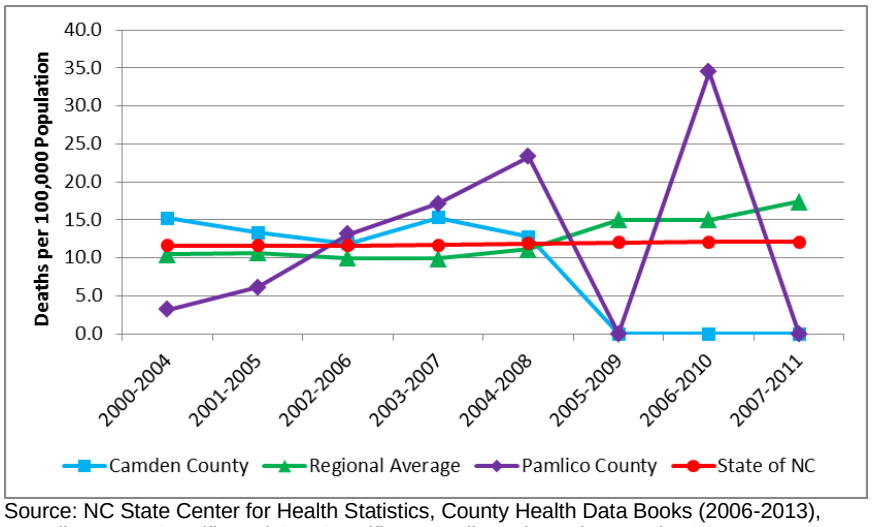
Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

Suicide Mortality Rate Trend

Figure 42 displays the suicide mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The suicide mortality rates for Camden and Pamlico Counties depicted in the graph all were unstable or suppressed. The volatility of the data plots for the counties is partially due to small numbers.
- The suicide mortality rate for the region displayed a prominent increase of 66%, rising 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 cited.

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 175 presents suicide mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of suicide deaths among stratified populations in Camden County and elsewhere, mortality rates were suppressed for those groups.
- Statewide the suicide mortality rate for white non-Hispanic persons was three times the rate for African American non-Hispanic persons.
- 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 175. 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
Camden County	4	N/A	1	N/A	0	N/A	0	N/A	1	N/A	4	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
Pamlico County	15	N/A	2	N/A	0	N/A	1	N/A	14	N/A	4	N/A	18	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

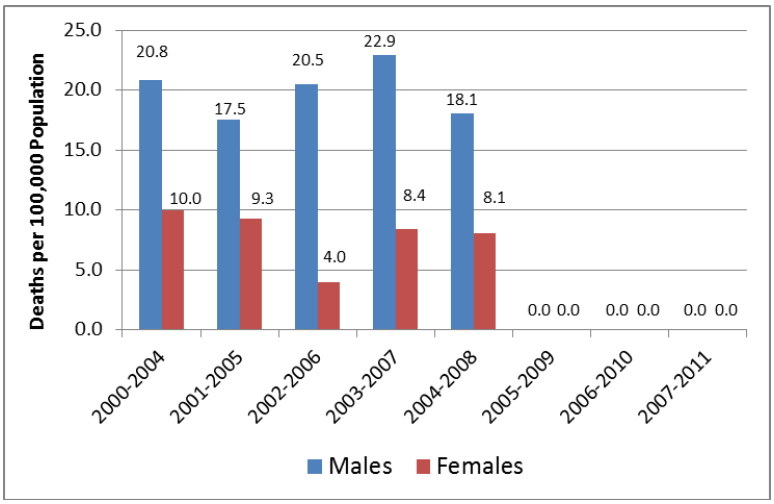
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Figure 43 depicts gender-stratified suicide mortality rates in Camden County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that there was a strong gender difference in the suicide mortality rate in Camden County. The graph demonstrates that the suicide rate among males was several times the comparable mortality rate among females. Although all the rates for

both sexes were either unstable or suppressed due to below-threshold numbers of deaths, this disproportionate-pattern of gender-based suicide mortality is common throughout NC.

Figure 43. Sex-Specific Suicide Mortality Rate Trend, Camden 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 (65).

Chronic liver disease and cirrhosis was an unranked cause of death in Camden County, Pamlico County, 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 Camden County after suicide.

Chronic Liver Disease and Cirrhosis Hospitalizations

Table 176 presents hospital discharge rate trend data for chronic liver disease and cirrhosis. Note that most of the county-level rates were unstable.

Table 176. 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
Camden County	**0.2**	**n/a**	**n/a**	**0.3**	**0.2**	**0.2**	**n/a**
Regional Average	**0.3**	**0.3**	**0.2**	**0.3**	**0.2**	**0.1**	**0.2**
Pamlico County	0.7	**0.2**	**0.1**	**0.5**	**0.5**	**0.7**	**0.6**
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, there were no hospital admissions for chronic liver disease and cirrhosis among Camden County residents in 2011 (55).

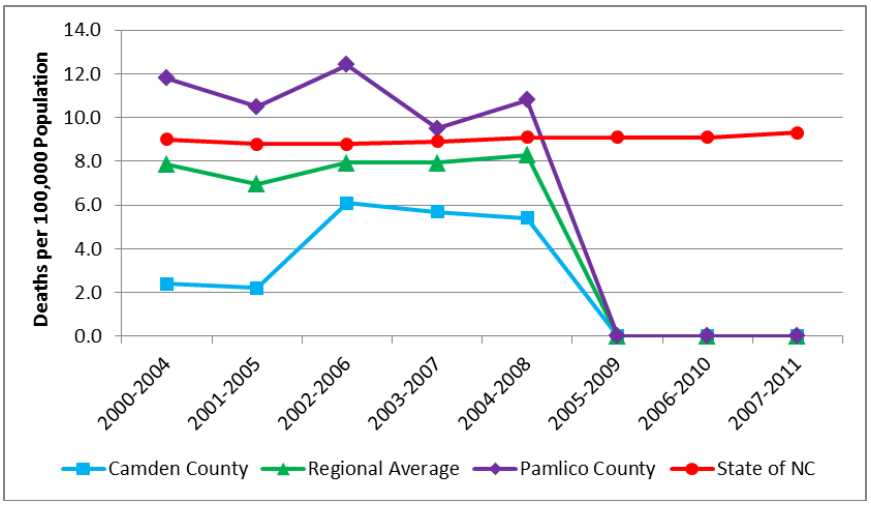
The ICD-9 Code for chronic liver disease and cirrhosis is 571, and the code for liver abscess and sequelae of chronic liver disease is 572. According to data provided by the region's four hospitals, in 2012 there were three hospitalizations of Camden County residents in those hospitals for diagnoses in those categories. Additionally, five Camden County residents visited the EDs of those hospitals for conditions in those diagnosis categories 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 Camden County or the other local jurisdictions were unstable or suppressed.
- 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 177 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 Camden 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 177. Race/Ethnicity-Specific and Sex-Specific Chronic Liver Disease and Cirrhosis Mortality (Single Five-Year Aggregate Period, 2007-2011)

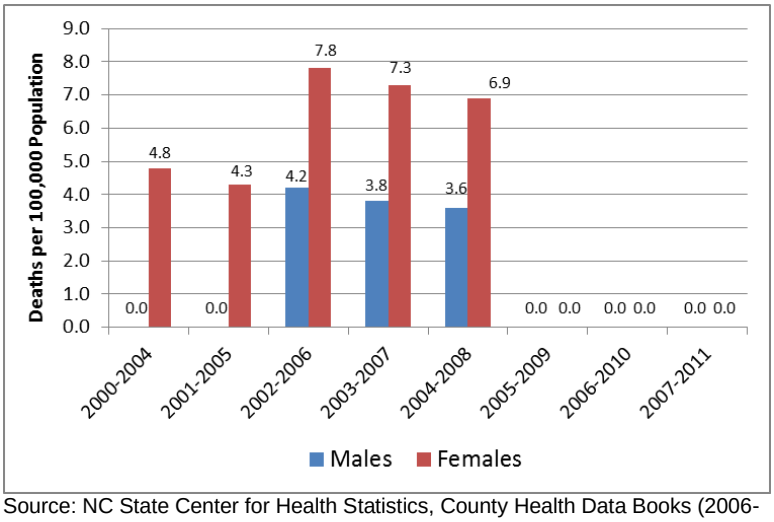
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	3	N/A	0	N/A	0	N/A	0	N/A	3	N/A	0	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
Pamlico County	12	N/A	0	N/A	0	N/A	0	N/A	8	N/A	4	N/A	12	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 Camden County for the aggregate periods 2000-2004 through 2007-2011.

- According to the graph, the chronic liver disease and cirrhosis mortality rate among Camden County females appeared to be higher than the comparable rate among Camden County males for all the time periods shown. However, it should be noted that all the gender-stratified mortality rates were unstable or suppressed except for the rate for males in the first two aggregate periods, which were true zero.

Figure 45. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Camden 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) (66).

AIDS was an unranked cause of death in Camden County, Pamlico 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). In Camden County there were no AIDS deaths during the period cited; neither were there any homicide deaths in the 2007-2010 aggregate period. The last two causes of death are discussed here in this report strictly on the basis of alphabetical order.

AIDS Hospitalizations

Table 178 presents hospital discharge rate trend data for AIDS. All the rates at the county and regional level were unstable or suppressed. Statewide, the AIDS hospital discharge was 0.2 for many years, but in 2011 decreased to 0.1.

Table 178. AIDS Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Camden County	**0.7**	**n/a**	**0.1**	**n/a**	**n/a**	**n/a**	**n/a**
Regional Average	**0.4**	**0.3**	**0.2**	**0.2**	**0.2**	**0.1**	**0.1**
Pamlico County	**n/a**	n/a	**0.1**	**0.1**	**0.2**	**0.2**	**n/a**
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, in 2011 there were no hospitalizations for HIV/AIDS among Camden County residents (55).

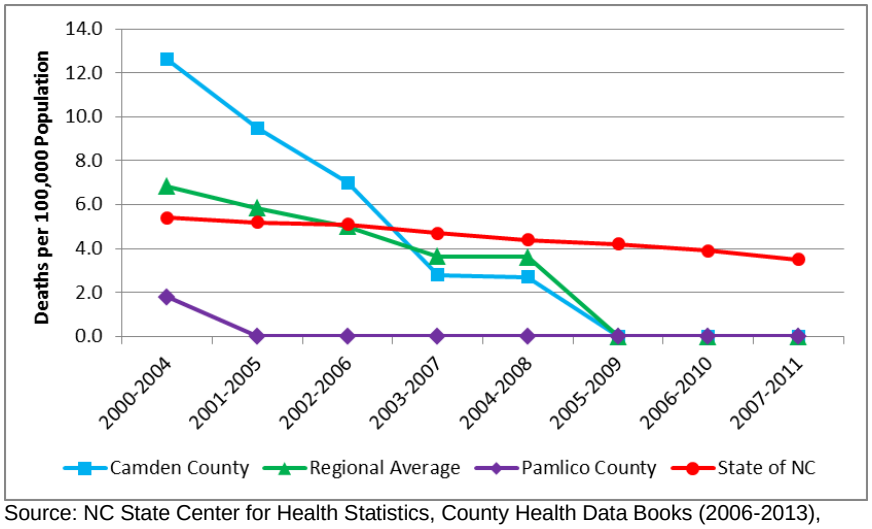
In the ICD-9 coding scheme, AIDS falls in the category Infectious and Parasitic Diseases, with the specific code of 042. According to data from the region's hospitals, no one from Camden County was hospitalized for AIDS in 2012. Neither were there any ED visits by Camden County residents associated with a diagnosis of AIDS in the period 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 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 179 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 179. Race/Ethnicity-Specific and Sex-Specific AIDS Mortality
(Single Five-Year Aggregate Period, 2007-2011)

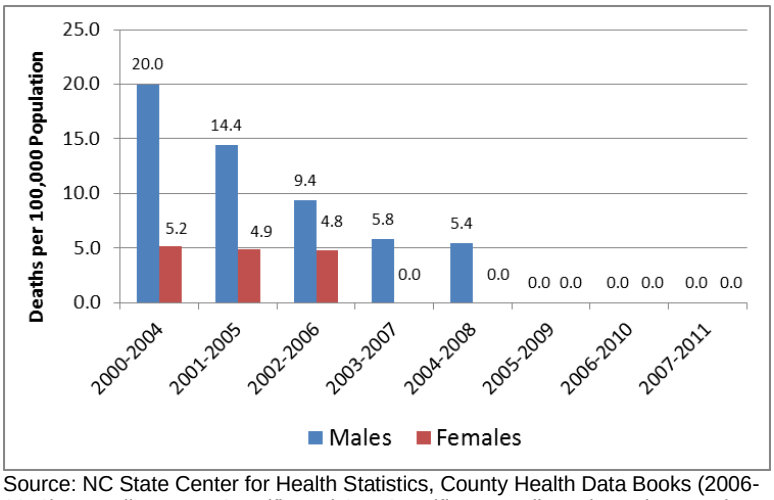
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	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
Pamlico County	1	N/A	0	N/A	0	N/A	0	N/A	1	N/A	0	N/A	1	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 Camden County for the aggregate periods 2000-2004 through 2007-2011.

- All the AIDS mortality rates shown in the graph were either unstable or suppressed, but the rate among males, higher than the rate for females throughout the period cited, appeared to be decreasing.

Figure 47. Sex-Specific AIDS Mortality Rate Trend, Camden 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 Camden County, Pamlico 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). In Camden County there were no homicide deaths during the period cited; neither were there any AIDS deaths in the 2007-2010 aggregate period. The last two causes of death are discussed here in this report strictly on the basis of alphabetical order.

Homicide Hospitalizations

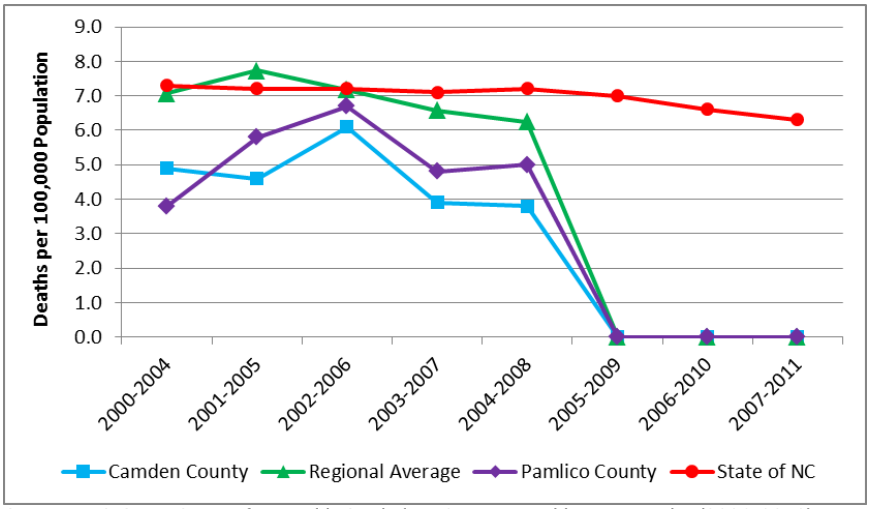
At the present time the NC SCHS does not track hospitalizations related to homicide or attempted homicide. There is an ICD-9 code descriptive of Homicidal Ideation (V62.85), but according to data provided by the region's hospitals, no Camden County residents were hospitalized under that code in 2012, and none was admitted under that code as an ED patient 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 Camden County appeared to be the lowest among the comparator jurisdictions during most of the period for which there are measured rates. It should be noted, however, that all the county-level homicide rates, as well as the regional rate, were either unstable or suppressed.
- 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 180 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.
- Statewide, the homicide mortality rate among African American non-Hispanic persons was four times the rate among white non-Hispanic persons.
- Statewide, there appeared to be gender-based differences in homicide mortality, with the rate for males over three times the comparable rate for females.

Table 180. Race/Ethnicity-Specific and Sex-Specific Homicide Mortality (Single Five-Year Aggregate Period, 2007-2011)

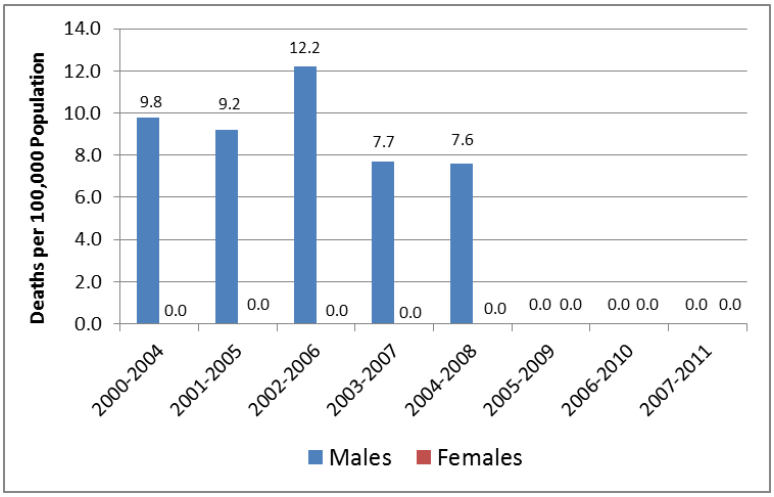
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Camden County	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	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
Pamlico County	3	N/A	0	N/A	0	N/A	0	N/A	1	N/A	2	N/A	3	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 Camden County for the aggregate periods 2000-2004 through 2007-2011.

- There were no homicide deaths among Camden County females in the first five aggregate periods; after that the rates were suppressed.
- The homicide mortality rate for males fluctuated until rates were suppressed beginning in 2005-2009.

Figure 49. Sex-Specific Homicide Mortality Rate Trend, Camden 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 in 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 (67).

Table 181 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 highest chlamydia infection rate in every year cited was the state rate.
- The NC Communicable Disease Branch provides the following disclaimer to this 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 181. 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
Camden County	19	201.5	15	155.7	13	133.6	**9**	**90.2**	14	140.3
Regional Average	62	313.1	80	385.1	93	446.8	88	405.3	96	436.4
Pamlico County	28	225.3	37	297.7	35	281.8	36	273.9	37	281.5
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 one 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 (68).

Table 182 presents incidence data (i.e., new cases diagnosed) for gonorrhea infections.

- In every aggregate period the regional gonorrhea incidence rate was the highest, and the rate for Pamlico County was the lowest.

Table 182. Gonorrhea Infection Incidence Trend (Five-Year Aggregate Periods, 2002-2006 to 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
Camden County	25	59.5	32	72.4	30	65.1	31	65.6	30	62.5
Regional Average	218	215.5	209	206.1	202	195.4	207	194.5	195	179.5
Pamlico County	36	55.2	29	44.5	27	41.5	25	38.6	33	52.5
State of NC	77,948	182.0	79,244	181.9	79,172	178.4	78,778	174.2	77,867	168.9

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 183 presents the 2006-2010 racially/ethnically-stratified gonorrhea infection rates for the four jurisdictions.

- In every jurisdiction the highest *stable* gonorrhea incidence rate occurred among the African American non-Hispanic population, in which group the incidence rate was eight or more 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 183. 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
Camden County	30	62.5	**13**	**33.6**	**17**	**222.9**	**0**	**0.0**	**0**	**0.0**
Regional Average	195	179.5	34	51.6	158	430.1	0	*39.2*	2	*178.7*
Pamlico County	33	52.5	**18**	**38.2**	**15**	**107.0**	**0**	**0.0**	**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 Camden County and its comparators tend to be low and yield extremely variable or suppressible rates. (For example, there were four new HIV cases in Camden County in the three-year period from 2009-2011.) Instead, Table 184 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 15 persons with HIV/AIDS living in Camden County.

Table 184. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2011 (By County of Residence)

Location	Number of Living Cases
Camden County	15
Regional Average	37
Pamlico County	17
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. Table 185 presents a summary of 2012 inpatient hospitalizations of Camden County residents in the region's four hospitals for *selected diagnoses* of infectious and parasitic diseases.

- In 2012 there were five hospitalizations among Camden County residents for diagnoses of infectious and parasitic diseases *in selected categories listed below*.

Table 185. Inpatient Hospitalizations of Camden County Residents for Infectious and Parasitic Diseases, ARHS Region Hospitals (2012)

ICD-9 Code	Diagnosis	2012 IP Hospitalizations				
		VBH	VCH	VRCH	AH	Total
001-009	**Intestinal Infectious Diseases**					
008.8	Viral enteritis	0	0	0	1	1
050-059	**Viral diseases generally accompanied by exanthem**					
053	Herpes zoster (incl. shingles)	0	0	0	1	1
054	Herpes simplex	0	0	0	1	1
110-118	**Mycoses**					
112	Candidiasis	0	0	0	2	2

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health.

Table 186 lists a summary of emergency department visits to all four area hospitals by Camden County residents with 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 summarizes 121 ED visits by Camden County residents resulting in specific diagnoses of infectious and parasitic diseases.
- Among the 21 ED admissions for intestinal infectious diseases listed, the most common diagnosis (15 cases) was viral enteritis.
- Among the 46 ED admissions for other bacterial diseases listed, the most common diagnosis (45 cases) was streptococcal sore throat.
- Among the 20 ED admissions for viral diseases generally accompanied by exanthema (rash) listed, the most common diagnosis (14 cases) was *Herpes zoster* (e.g., shingles).
- Of the 17 ED admissions for mycoses (fungal infections) listed, the most common diagnosis (14 cases) was candidiasis (i.e., yeast infections).

Table 186. Emergency Department Admissions of Camden County Residents for Infectious and Parasitic Diseases, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Emergency Department Visits		
		2010	2011	2012
001-009	**Intestinal Infectious Diseases**			
005	Other bacterial food poisoning	0	1	2
008.8	Viral enteritis	6	7	2
009	Ill-defined intestinal infections	2	1	0
010-018	**Primary tuberculosis**	0	1	0
030-041	**Other bacterial diseases**			
034.0	Streptococcal sore throat	11	25	9
034.1	Scarlet fever	0	0	1
050-059	**Viral diseases generally accompanied by exanthem**			
052	Chickenpox	0	1	0
053	Herpes zoster (incl. shingles)	1	5	8
054	Herpes simplex	1	4	0
070-079	**Other diseases due to viruses and chlamydiae**			
075	Infectious mononucleosis	1	1	2
090-099	**Syphilis and other venereal diseases**	2	1	0
110-118	**Mycoses**			
110	Dermatophytosis	0	2	1
112	Candidiasis	2	3	9
130-136	**Other infectious and parasitic diseases**			
133.0	Scabies	3	1	5

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and 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 (69).

Table 187 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.)

- All the county-level data 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 187. 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
Camden County	**7**	71.9	**2**	**125.2**	**7**	**71.9**	**1**	**60.7**	**9**	**90.2**	**3**	**144.2**
Regional Average	25	123.0	5	128.2	22	108.4	4	85.4	22	117.2	5	131.7
Pamlico County	24	186.2	**1**	**55.2**	25	194.7	**4**	**224.8**	13	98.9	**1**	**52.2**
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 provided by the region's four hospitals, four Camden County residents were hospitalized with a diagnosis of asthma in 2012.

Table 188 presents data on the number of emergency department admissions of Camden County residents to the four ARHS region hospitals in 2010-2012 for diagnoses associated with asthma. For that period there was a total of 190 such ED admissions.

Table 188. Emergency Department Admissions of Camden County Residents for Asthma, ARHS Region Hospitals (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
493	**Asthma**	45	57	88

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and 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 (70).

Table 189 presents estimates of the prevalence of diagnosed diabetes in adults age 20 and older in Camden County and its local comparators (state-level data was not available).

- The five-year average prevalence in Camden County was 10.2%; the five-year average for the region was 11.4%, and the five-year average for Pamlico County was 11.9%.
- In Camden County the prevalence of diabetes decreased 3% between 2005 and 2008, but increased 7% between 2008 and 2009.

Table 189. 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	
	#	%	#	%	#	%	#	%	#	%
Camden County	683	10.2	717	10.2	715	10.2	714	9.9	731	10.6
Regional Average	1,457	11.1	1,502	11.1	1,533	11.3	1,578	11.3	1,718	12.3
Pamlico County	1,146	11.4	1,159	11.4	1,217	12.0	1,202	11.9	1,261	12.6
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 six inpatient hospitalizations at area hospitals among Camden County residents for diabetes, and from 2010-2012 there were 41 ED admissions of Camden County residents associated with the diagnosis of diabetes.

Obesity

Obesity in Adults

Table 190 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.

- The five-year average prevalence of adult obesity in Camden County was 30.6%; in Pamlico County the five-year average prevalence was 28.0%, and regionally the five-year average prevalence was 31.5%.
- It is noteworthy that the prevalence of diagnosed obesity in adults increased in all three jurisdictions over the period cited. In Camden County, the estimated prevalence of diagnosed obesity in adults increased 17% between 2005 and 2009. The increase region-wide was 13% and in Pamlico County the increase was 2%.

Table 190. 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	
	#	%	#	%	#	%	#	%	#	%
Camden County	1,857	27.7	2,084	29.8	2,232	31.8	2,273	31.6	2,224	32.3
Regional Average	3,934	29.5	4,207	30.7	4,401	31.9	4,490	32.0	4,730	33.4
Pamlico County	2,719	27.0	2,883	28.3	2,900	28.7	2,890	28.6	2,744	27.5
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, 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 (71). (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 191 presents NC NPASS data for children ages 2-4 for the period 2007-2011.

- The annual percent prevalence of overweight and obesity among children of this age group in Camden County was variable and sometimes unavailable due to small numbers of children in the program.
- In Camden County the average percent of overweight 2-4 year old children for the three years of available data was 15.0%. The average percent of obesity in that age group for the four years of available data was 15.3%.
- Region wide, the five-year average percent overweight was 15.0% and the five-year average percent obese was 16.0%.
- In Pamlico County, the five-year average percent overweight was 20.5% and the four-year average (no data for 2010) percent obese was 15.4%.
- Statewide, the five-year average percent overweight was 15.9% and the five-year average percent obese was 15.5%.

Table 191. 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
Camden County	N/A	10.7	11.2	18.1	19.7	N/A	14.2	18.6	N/A	13.7
Regional Average	14.9	15.2	15.5	17.1	14.0	15.1	15.6	16.2	15.2	16.6
Pamlico County	14.7	15.9	18.8	9.8	22.6	18.9	29.4	N/A	16.8	16.8
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. Camden 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 Camden County.

As noted in the Health Resources section of this report dentists are in short supply in the entire Albemarle region. With resources for dental care in limited 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 192 lists ED visits to the region's four hospitals in 2010-2012 by Camden County residents for conditions associated with this code category.

- For the three year period 2010-2012, Camden County residents made a total of 200 visits to local EDs for attention to dental problems.

Table 192. Emergency Department Admissions of Camden County Residents for Dental Conditions, ARHS Region Hospitals (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	1	2
521.0	Dental caries	15	29	20
522	Diseases of pulp and periapical tissue	7	8	7
523	Gingival and periodontal disease	0	4	0
524	Dentofacial anomalies, including malocclusion	1	0	0
525	Other diseases of the teeth and supporting structure	29	28	49
Total		52	70	78

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and Albemarle Health

A search of the hospital databases revealed the following payers for *all* dental ED visits to area hospitals by Camden County residents:

- Self-pay covered an annual average of 43% of all dental ED visits by Camden County residents
- Medicaid covered an annual average of 20% of those visits
- Medicare covered an annual average of 4% of those visits.

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 193 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 Camden County received dental services at a 52% 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 193. 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
Camden County	765	258	33.7	537	119	22.2
Regional Average	2,256	773	34.6	1,716	464	26.5
Pamlico County	1,480	812	54.9	1,131	369	32.6
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 (72).

Table 194 presents partial summaries of the screenings conducted in SY2005-2006 through SY2008-2009.

- An average of 96.5% of kindergarteners, and 96.5% of fifth graders in Camden 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 20.3% of kindergarteners and 4.5% of fifth graders in Camden 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 194. 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
Camden County	99.0	28.0	95.0	9.0	97.0	16.0	97.0	3.0	93.0	18.0	99.0	4.0	97.0	19.0	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
Pamlico County	70.0	24.0	71.0	2.0	76.0	23.0	63.0	0.0	73.0	11.0	74.0	3.0	69.0	18.0	71.0	1.0
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 Camden 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 (73).

The local management entity serving Camden 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 195 presents an annual summary of the number of persons in each jurisdiction served by LMEs/Area Programs from 2005 through 2010.

- In Camden County the number of persons served by mental health area programs fluctuated from year to year over the period cited, and was the same in 2010 as in 2005.
- In Pamlico County the number of persons served by mental health area programs also fluctuated but rose by 33% 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 195. Persons Served by Mental Health Area Programs/Local Management Entities (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Camden County	218	207	229	241	198	217
Regional Average	758	724	730	730	733	706
Pamlico County	341	312	324	427	515	454
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 (74).

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 196 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 Camden County, the net decrease from 2005 to 2010 was 92%; in Pamlico County the net decrease was 94%, and statewide it was 61%.

Table 196. Persons Served in NC State Psychiatric Hospitals (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Camden County	13	9	11	8	2	1
Regional Average	41	39	33	18	13	9
Pamlico County	31	18	19	5	4	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 197 presents ED admissions of Camden County residents to the four ARHS region hospitals 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 165 ED visits by Camden County residents to area EDs 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 30% of all the visits listed in the table.

Table 197. Emergency Department Admissions of Camden County Residents for Mental, Behavioral and Neurodevelopmental Disorders, ARHS Region Hospitals (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	3	3	7	13
295	Schizophrenic disorders	6	4	0	10
296	Episodic mood disorders (including bipolar disorder)	2	10	14	26
298	Other nonorganic and unspecified mood disorders	3	6	2	11
300	Anxiety, dissociative and somatoform disorders	11	17	21	49
303	Alcohol dependence syndrome	1	3	4	8
304	Drug dependency	0	1	2	3
305	Non-dependent abuse of drugs	8	6	10	24
311	Depressive disorder, not elsewhere classified	11	2	8	21
Total		45	52	68	165

Source: Vidant Bertie Hospital, Vidant Chowan Hospital, Vidant Roanoke-Chowan Hospital and 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 (75).

The NC Council on Developmental Disabilities estimated that as of January, 2011 there were over 167,000 persons in NC with a developmental disability (76).

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 198 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 counties and region served in state developmental centers were small and variable, and demonstrated no definitive pattern other than to fall then rise again over time.
- At the state level, the number of persons served decreased by 37% between 2005 and 2010.

Table 198. Persons Served in NC State Developmental Centers (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Camden County	2	2	0	0	2	2
Regional Average	6	6	1	1	6	6
Pamlico County	6	6	0	0	6	6
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 199 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 relatively 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 199. Persons Served in NC Alcohol and Drug Abuse Treatment Centers (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Camden County	2	5	5	11	6	6
Regional Average	11	14	9	19	21	13
Pamlico County	12	16	10	8	11	13
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 197, cited previously, presented 2010-2012 ED admissions of Camden County residents 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, but 13 total admissions under ICD-9 Code 292, Drug-induced mental disorders.
- There also were eight total admissions under ICD-9 Code 303, Alcohol dependence syndrome, and three total admissions under ICD-9 Code 304, Drug dependency.
- There were 24 total admissions under ICD-9 Code 305, Non-dependent use of drugs.

Substance Use and Abuse among Youth

Tobacco

While there is no Camden 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. Camden County is included among the 37 counties in the Branch's Eastern/Coastal Region (Region 1).

Table 200 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 200. 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 Camden 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 (77).

According to EPA data, in 2011 there were no facilities in Camden County reporting TRI releases of any kind to any destination (78).

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 (79).

As of July 21, 2012, SDWIS listed three active water systems in Camden County. Two were *community water systems* that together served 10,433 people. 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.

SDWIS also listed one transient, non-community water system in Camden County that served a total of 165 people. These are water systems that serve different people who do not remain in that place for long periods of time (i.e., are "transient"). Such systems include, for example, gas stations and campgrounds.

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 201 lists the active water systems in Camden County as of July 12, 2012. The table also includes any *health-based* violations for the period from 2000 through 2011.

- One of the Camden County water systems had a health violation during the period cited, but it was years ago.

Table 201. Active Water Systems in Camden County (As of July 12, 2012)

Type of Water System	Total Population Served	Primary Water Source Type	Health Violations 2000-2011
Community Water Systems			
South Camden Water and Sewer District	5,133	Groundwater	None
South Mills Water Association	5,300	Groundwater	None
Total	**10,433**		
Transient, Non-Community Water Systems			
North River Campground	165	Groundwater	MCL monthly TRC for Coliforms (2004)
Total	**165**		

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 Systems

South Camden Water Department

The South Camden Water Department, which operates under Camden County's Public Works Department, manages a reverse-osmosis water treatment system.

All of the department's operators are state certified and licensed. The operators' duties include but are not limited to routine maintenance of the equipment in the plant, pumps, motors, and generators. The generator at the plant is a permanent, in-place generator capable of running the on-site wells as well as the whole plant. The department also has a portable generator for the remote wells.

The department takes water samples for processing by contract labs and an in-house lab. The in-house lab is certified by the state and EPA to sample temperature, dissolved oxygen, and pH. The department also tests the water for conductivity and phosphate (both naturally occurring and added), and constantly monitors the chlorine level in the water. The department monitors the quality and level of the raw water as it comes from the ground in order to know if the aquifer is being over-pumped (80).

The On-site Water Protection program of the ARHS/Camden 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 202 summarizes ARHS/Camden County Health Department activities related to wells and well testing for 2008 through 2010 as catalogued by the state's Environmental Health Section.

Table 202. Camden County Health Department On-Site Water Protection Activities: Well Water
FY2008 through FY2010

Activity	2008	2009	2010
Well Sites Evaluated	N/A	7	11
Well Site Consultative Visits	N/A	N/A	N/A
Well Construction Permits Issued			
New	4	4	3
Repair	1	3	8
Bacteriological Samples Collected	N/A	3	11
Other Samples Collected	N/A	3	11

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

Municipal Wastewater Systems

Camden County Wastewater Treatment Plant

The Camden County sewer system began operation in 2008. The service area includes the section of highway 158 between and including Lambs Marina and the Medical Park, Gumberry Road, Highway 343 from Gumberry Road to Scotland Road, and Scotland Road. The largest customers are the county's four schools, the Courthouse complex, and River Bridge Apartments.

The entire sewer collection system is force main, meaning that every connection has a tank, pump, and pump controls. The thirteen duplex pump stations are equipped with larger concrete tanks and two pumps with telemetry, so operations can be monitored from the treatment plant.

The duplex pump stations are visited at least once a week to check for grease build-up, pump and control float operation, run hours, wash down, and any other problems that may occur. The two main pump stations are the Courthouse complex and Burnt Mills; they move the waste to the waste water plant. Both main pump stations have on site back-up generators, and there are two mobile generators for the other pump stations.

The capacity of the wastewater treatment plant is 100,000 gallons per day; currently it operates at an average of around 18,000 gallons per day when the schools are in secession and about 9000 gallons per day on holidays and weekends.

After the wastewater is treated it is pumped three miles north to the 5.9 million gallon storage pond at a spray irrigation site. There are currently four zones with spray nozzles planted with green ash trees. The treated wastewater is sprayed on the zones as necessary to keep the level down in the storage pond. A sewer maintenance worker keeps the grass cut, spray nozzles unclogged and maintains equipment as necessary (81).

On-Site Wastewater Systems

The ARHS/Camden 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. Table 203 summarizes ARHS/Camden County Health Department activities related to septic systems for 2008 through 2010 as catalogued by the state's On-Site Water Protection Branch.

Table 203. Camden County Health Department On-Site Water Protection Activities: Septic Systems 2008-2010

Activity	2008	2009	2010
Site Visits (all OSWW Field Activities not listed below)	N/A	N/A	N/A
Sites Evaluated (or Re-evaluated)	81	N/A	62
Operation Permits Issued	64	N/A	47
Improvement Permits Issued - Repair or replace malfunctioning system	2	N/A	N/A
Construction Authorizations			
New, Revision or Relocation	62	N/A	48
Repair/Replacement of Malfunctioning System	4	N/A	4
Sewage Complaints Investigated	N/A	N/A	N/A

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.

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 204 lists the NPDES-permitted dischargers in Camden County and the destinations and permitted volumes of their discharges. One permitted discharges is a municipal water treatment plant, the other is a private water utility permitted to discharge from its treatment facility.

Table 204. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers (November, 2012)

Owner	Facility	Type	Discharge Destination	Permitted Flow (Gal/Day)
South Mills Water Association, Inc.	South Mills Water Association WTP	Water Treatment Plant	Dismal Swamp Canal	45,000
Camden County	Camden County Reverse Osmosis WTP	Water Treatment Plant	Pasquotank River	432,000

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 205 presents figures summarizing tonnage of solid waste disposed in Camden County, the ARHS Region, Pamlico County, and NC for the period FY2006-07 through FY2010-11.

- In FY2010-11, Camden County managed 3,339 tons of municipal solid waste (MSW) for a rate of 0.33 tons per capita. This figure represented an increase of 6% 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 7% *less* than the FY1991-92 base per capita rate.
- The per capita rate in Pamlico County decreased 4% between the base year and FY2010-11.

Table 205. Solid Waste Disposal
FY2006-07 through FY2010-11

Location	MSW Tons Managed	MSW Tons Disposed					Base Year Per Capita	Per Capita Rate	% Change Base Year to
	1991-1992	2006-07	2007-08	2008-09	2009-2010	2010-2011	(1991-1992)	2010-2011	2010-2011
Camden County	1,850.16	5,365.44	4,582.30	4,021.91	4,006.51	3,339.03	0.31	0.33	8
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
Pamlico County	8,541.24	11,789.92	11,612.87	10,285.35	9,591.29	9,445.25	0.75	0.72	-4
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 206 presents the FY2010-11 County Waste Disposal Report for Camden County.

- All of Camden County's solid waste is transferred to or transported directly to landfills *outside* the county.

Table 206. County Waste Disposal Report, Camden County
(FY2010-11)

Location	Facility Name	Facility Type	Tons Received	Tons Transferred
Camden County	Pasquotank County C&D Landfill	Construction & Demolition Landfill	362.35	0.00
	East Carolina Regional Landfill	Municipal Solid Waste Landfill	6.31	0.00
	Currituck Transfer Station	Municipal Solid Waste Transfer Station	2.44	2.44
	Pasquotank County Transfer Station	Municipal Solid Waste Transfer Station	2,967.93	2,967.93

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

Camden County Solid Waste and Recycling Program

Camden County has three convenience sites to which people may bring solid waste: Camden Township site in Camden, Shiloh Township site in Shiloh, and South Mills Township site in South Mills. These convenience sites accept recyclables, yard waste, scrap metals, appliances, furnishings, household waste, motor oil, oil filters, antifreeze, and tires. The only plastics allowed are bottles and jugs with a neck smaller than the body. Construction debris and shingles are *not* accepted (82).

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. As of April, 2013, that site listed no hazardous waste generators in Camden County (83).

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 (84).

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 207 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 207. 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
Camden County	2006	205	72	35.1	**2**	**2.8**	116	N/A	N/A
	2007	206	91	44.2	N/A	N/A	140	N/A	N/A
	2008	218	73	33.5	N/A	N/A	114	N/A	N/A
	2009	203	99	48.8	N/A	**0.0**	131	N/A	N/A
	2010	194	107	55.2	N/A	**0.0**	137	N/A	N/A
Pamlico County	2006	234	165	70.5	**2**	**1.2**	278	N/A	N/A
	2007	229	147	64.2	**1**	**0.7**	237	N/A	N/A
	2008	218	162	74.3	**1**	**0.6**	271	N/A	N/A
	2009	212	155	73..1	N/A	**0.0**	241	N/A	N/A
	2010	223	155	69.5	N/A	**0.0**	208	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 listed diagnoses of some of these diseases gathered when Camden County residents presented at the emergency departments of the four hospitals in the region.

Table 208 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 208. 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 NC include LaCrosse encephalitis, West Nile virus and Eastern equine encephalitis (85).

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 209 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 209. 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 Shelters Serving Camden County

The SPCA of Northeastern North Carolina is the animal shelter for Pasquotank and Camden Counties. It is physically located in Elizabeth City. It is open to the public Saturday through Wednesday 10:00 to 3:30 and Thursday and Friday 10:00 to 6:00.

The SPCA of Northeastern NC provides a loving environment, food, shelter and temporary housing for all lost, strayed or unwanted domestic animals from Pasquotank and Camden Counties. The SPCA does all it can to prevent the spread of diseases at the shelter. Services

offered by the organization include educational seminars on the importance of good pet care. The shelter promotes a spay/neuter program, including vouchers to help new owners with the cost of these procedures, since one requirement of adoption is that the adopted pet must be spayed or neutered (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 210 presents data on the availability of grocery stores.

- The number of grocery stores in Camden County was the same—one—in 2007 and 2009.
- Approximately 48 Camden County households (~1%) have no car and therefore low access to grocery stores.

Table 210. 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 211 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 were located in Camden County.

Table 211. 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 212 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.
- Camden County had two fast food restaurants in 2007 and three in 2009. In 2009 there were two more fast food restaurants than grocery stores in the county.

Table 212. 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 213 presents data on the availability of recreational and fitness facilities.

- There were no recreation/fitness facilities in Camden County in either 2007 or 2009.

Table 213. 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

Camden County

Hello, I am _____ and this is _____ representing the Camden 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 Camden County, North Carolina. The Camden County Health Department, Healthy Carolinians of the Albemarle, and Albemarle Health will use the results of this survey to help develop plans for addressing the major health and community issues in Camden 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:

- *Camden Health Dept. → 252-338-4460*

Additionally, the numbers for the local law enforcement are provided here:

- *Camden County Sheriff's Office → 252-338-5046*

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 Camden 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 Camden 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 Camden County.** (Think about health care options, access, cost, availability, quality, etc.)	**8.4%**	**35.4%**	**32.4%**	**6.8%**
Question 2 **Camden 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.)	**0%**	**0%**	**44.9%**	**54.0%**
Question 3 **Camden 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.)	**1.1%**	**1.0%**	**57.5%**	**40.4%**
Question 4 **There are plenty of ways to earn a living in Camden County.** (Think about job options and quality of jobs, job training/higher education opportunities, etc.)	**12.4%**	**57.6%**	**18.8%**	**0%**
Question 5 **Camden County is a safe place to live.** (Think about safety at home, in the workplace, in schools, at playgrounds, parks, shopping centers, etc.)	**0%**	**1.0%**	**63.0%**	**35.6%**
Question 6 **There is plenty of support for individuals and families during times of stress and need in Camden County.** (Examples include neighbors, support groups, faith community outreach, agencies, organizations, etc.)	**0%**	**5.0%**	**69.0%**	**16.0%**
Question 7 **Camden County has clean air.**	**0%**	**1.5%**	**80.8%**	**17.7%**
Question 8 **Camden County has clean water.**	**1.1%**	**4.7%**	**80.8%**	**10.6%**

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 Camden 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 Camden 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:**

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 Camden 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 Camden 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 Camden 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:

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 your own personal health. Remember, this survey will not be linked to you in any way.

Question 13

How would you rate your own personal health? Mean health: **Very Good**

___ 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.)*

39.5% Health insurance *my* employer provides
16.3% Health insurance *my spouse's* employer provides
0% Health insurance *my school* provides
2.7% Health insurance *my parent or my parent's* employer provides
20.8% Health insurance I bought for myself
13.7% Medicaid
23.9% Medicare
1.5% Veteran's Administration benefits

0.4% Other: _____
8.1% I currently do not have any kind of health insurance or health care coverage
0.4% No Response

Question 15

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

10.3% Yes **89.3%** No 0.4% Don't Know 0% No Response

Question 16

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

79.7%	Doctor's office	0%	Company nurse
6.1%	Health department	0%	Community or Rural Health Center
2.7%	Hospital clinic	17.5%	Urgent Care Center
14.6%	Hospital emergency room	1.0%	Other: _____
0%	Student Health Services	0%	No Response
1.0%	Mental Health		

Question 17

In what cities are the medical providers you visit located?
(Choose all answers that apply.)

0%	Ahoskie	0%	Franklin	0%	Suffolk
17.3%	Chesapeake	0%	Gatesville	2.3%	Virginia Beach
0.6%	Dare County	0.4%	Greenville	0%	Williamston
2.9%	Edenton	1.7%	Hertford	0%	Windsor
70.8%	Elizabeth City	5.4%	Norfolk	9.5%	Other: _____
1.3%	Barco	4.4%	Currituck	1.1%	Hampton
2.7%	Moyock	3.6%	No Response		

Question 18

Where do you usually get advice on your health?
(Choose all answers that apply.)

68.3%	Doctor's office	4.2%	Urgent Care Center
5.2%	Health department	12.5%	Family
0%	Hospital clinic	9.0%	Friends
0%	Hospital emergency room	6.2%	Media (television, news, radio, magazine)
0%	Student Health Services	19.0%	Internet or other computer-based info
4.3%	Company nurse	4.3%	Other: _____
0%	Community or Rural Health Center		
0.7%	Health Insurance Nurse	3.3%	Self
0.4%	Senior Center	0%	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.***

88.4% Within the past 12 months
8.1% 1-2 years ago
0.8% 3-5 years ago
2.7% More than 5 years ago
0% I have never had a routine or "well" medical checkup
0% Don't Know
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.***

56.3% Within the past 12 months
26.8% 1-2 years ago
9.0% 3-5 years ago
5.9% More than 5 years ago
1.3% I have never had a routine or "well" dental checkup
0% Don't Know
0.7% No Response

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.)

0% Children's Developmental Services Agency/Developmental Evaluation Center
18.7% Counselor or Therapist in private practice
15.9% Doctor
4.7% Emergency Room
2.9% Employee Assistance Program
19.0% Local Mental Health Facility
7.6% Minister/Pastor
0% School Counselor
0% Vocational Rehabilitation/Independent Living
1.1% Other: _____
30.1% I don't know
0% No Response

Question 22

How would you rate your day-to-day level of stress?

16.6% High 35.0% Moderate **45.5%** Low 2.9% No Response

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?

11.8%	Always	7.8%	Sometimes	**52.6%**	Never
6.6%	Usually	17.3%	Rarely	3.8%	No Response

Question 24

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

32.3%	None	1.1%	5 days
8.8%	1 day	0%	6 days
12.4%	2 days	5.1%	7 days
1.7%	3 days	32.1%	I never drink alcohol
6.2%	4 days	0.4%	No Response

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?

26.3%	None	0%	5 times
5.8%	1 time	0%	6 times
0%	2 times	0%	7 times
3.1%	3 times	0%	No Response
0%	4 times		

Question 26

Do you smoke cigarettes?

21.5%	Yes
62.9%	I have never smoked cigarettes
15.7%	I used to smoke but have quit
0%	No Response

Question 27

How many cigarettes do you smoke per day?

(Choose only one answer.)

8.6%	Less than half a pack per day
12.8%	Between half a pack and one (1) pack per day
0%	One (1) pack a day
0%	Two (2) packs a day

Question 28

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

27.2% Yes	**72.4%** No	0.4% No Response

Question 29

If you answered yes to Q 28, where are you regularly exposed to secondhand smoke?
(Choose all answers that apply.)

5.5%	Public Places	1.7%	Workplaces
20.1%	Home	8.2%	Car
0%	Hospital	0%	Other: _____
0%	School (public, community college, university)		
0%	No Response		

Question 30

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

91.1% Not at all 7.8% On some days 1.1% Every day 0% No Response

Question 31

Are you in support of establishing all county property including public parks and recreational facilities as smoke free?

81.3% Yes 18.1% No 0.6% Don't Know 0% No Response

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?

11.8%	None
6.2%	Less than once a week
8.5%	Once a week
42.8%	2-3 times a week
4.1%	4-6 times a week
26.6%	Daily

Question 33

If you answered "none" to Q 31, why don't you engage in physical activity?
(Choose all answers that apply.)

2.5%	My job is physical or hard labor
3.4%	I don't have enough time for physical activity
1.3%	I'm too tired for physical activity
4.3%	I have a health condition that limits my physical activity
0%	I don't have a place to exercise
0%	Weather limits my physical activity
0%	Physical activity costs too much (equipment, shoes, gym expense)
1.7%	Physical activity is not important to me
0%	Other: _____
0%	No Response

Question 34

Which of the following physical activity resources would you utilize?
(Choose all answers that apply.)

35.4% Park/Playground
22.2% School
21.6% Church
27.2% Community Center
18.8% Senior Center
28.5% Parks & Recreation Facility
29.1% Gyms
39.6% Walking Trail
35.0% Nature Trail
35.2% Bike Trail
20.8% Canoeing
14.7% Kayaking
37.7% Walkable Communities – i.e. areas measured, deemed safe to walk, etc.
7.3% No Response

Question 35

Do you know of any schools that allow the public to use their recreational facilities after hours?

49.2% Yes 45.5% No 5.3% No Response

Question 36

How often do you visit county parks and recreation facilities?

0% Daily
22.3% Weekly
14.4% Monthly
15.3% Occasionally
22.7% Rarely
25.3% Never
0% No Response

Question 37

What are the top reasons you do not visit or do not visit regularly?
(Choose all answers that apply.)

0% No lighting
4.7% No bathrooms
2.7% Unclean
0% Unsafe
3.6% No drinking fountains
0% Not handicap accessible
1.1% Lack of shade
0% Lack of children's play equipment
0% Lack of fields or courts for sports
1.1% Lack of walking paths/tracks

1.1% Lack of biking paths
0% Lack of trashcans/pet waste disposal
0% Lack of transportation
2.5% Cost
39.7% Nothing offered of interest to me
12.3% Other: _____
11.8% No Response

Question 38

Not counting juice, how many servings of fruit do you consume in an average day?

16.8%	None	0%	5 servings
49.0%	1 serving	0%	6 servings
26.8%	2 servings	0%	7 servings
5.9%	3 servings	0.7%	Don't Know
0.8%	4 servings	0%	No Response

Question 39

Not counting potatoes and salad, how many servings of vegetables do you consume in an average day?

3.7%	None	2.3%	5 servings
29.4%	1 serving	0%	6 servings
50.7%	2 servings	0%	8 servings
13.5%	3 servings	0%	Don't Know
0.4%	4 servings	0%	No Response

Question 40

Are you within 10 miles of a grocery store, convenience store, or dollar store?

91.8% Yes 8.2% No 0% Don't Know 0% No Response

Question 41

Are fresh fruits and vegetables readily available at these stores?

82.0% Yes 9.4% No 0% Don't Know 0.4% No Response

Question 42

Are you within ten miles of a farmers market or roadside, produce stand?

88.7% Yes 10.3% No 1.0% Don't know 0% No Response

Question 43

If yes, during the months open how often do you visits?

0.6% Daily
25.4% Weekly
16.5% Monthly
25.9% Occasionally
11.3% Rarely

8.9% Never

Question44

What are the primary reasons you do not visit or do not visit regularly?

(Choose all answers that apply.)

0% Lack of transportation
11.1% Too expensive
0% I do not eat fruits and vegetables
4.7% I do not know the locations and hours of operation
4.2% I am working during hours of operation
1.1% Does not accept EBT or WIC
7.1% I have my own garden
7.2% Other: _____
27.2% No Response

Question 45

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

Mean: **1.9** 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	11.7%	Yes	**88.3%**	No
Depression	19.7%	Yes	**80.3%**	No
Diabetes	17.9%	Yes	**82.1%**	No
High blood pressure	41.0%	Yes	**59.0%**	No
High cholesterol	43.0%	Yes	**57.0%**	No
Mental Illness	7.7%	Yes	**92.3%**	No
Overweight/obesity	43.0%	Yes	**57.1%**	No
Heart Disease	10.7%	Yes	**89.3%**	No
Cancer	5.4%	Yes	**94.6%**	No

Question 47

What year were you born? Mean Age: **52.7**

Age Groups:

0.4%	<=18	**24.8%**	>58-68
7.0%	>18-28	19.9%	>68-78
17.7%	>28-38	0%	>78-88
19.9%	>38-48	0%	>% 88-98
10.4%	>48-58		

Question 48

Are you male or female? 44.0% Male **56.0%** 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?

30.1% Yes 8.0% No 0% No Response

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.)*

3.0% 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).
4.0% Instructed by a health professional that an annual prostate exam was not necessary.
0% Other Reason'
0% Don't Know
1.0% No Response

Question 51

How long has it been since your last prostate exam?

26.4% Within the past 12 months
1.7% 1-2 years ago
2.0% 3-5 years ago
0% More than 5 years ago
1.0% I don't know/don't remember
6.9% I have never had a prostate exam
0% 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?

30.3% Yes 6.6% No 0% Under age 40 0% 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.)
0.8%	Instructed by a health professional that an annual mammogram was not necessary
4.6%	Other Reason
1.2%	Don't Know
0%	No Response

Question 54

How long has it been since your last mammogram?

25.1%	Within the past 12 months
4.9%	1-2 years ago
2.7%	3-5 years ago
0%	More than 5 years ago
0%	I don't know/don't remember
4.2%	I have never had a mammogram
0%	No Response

Question 55

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

45.3% Yes 10.7% No 0% No Response

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.)

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.)
7.2%	Instructed by a health professional that a pap test every 1-3 years was not necessary

2.7% Other Reason
0.8% Don't Know
0% No Response

Question 57

How long has it been since your last Pap test?

32.4% Within the past 12 months
11.1% 1-2 years ago
7.3% 3-5 years ago
5.2% More than 5 years ago
0% I don't know/don't remember
0% I have never had a pap test
0% No Response

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?

40.1% Yes 12.5% No 0% Under age 50 0.6 % 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.)

21.3% Yes **78.7%** No 0% 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.)*

10.0% Nutrition
13.6% Physical Activity
9.9% Sex
7.5% Tobacco
0.4% Asthma Mgmt
0.4% Diabetes Mgmt
2.0% Overweight/Obesity
10.3% First Aid/CPR
6.8% Gang violence
5.8% Reckless driving/speeding
4.5% Eating disorder (e.g. anorexia or bulimia)
1.9% Mental Health issues (depression, anxiety)
3.9% Suicide Prevention
6.2% Substance Abuse (alcohol/drugs)
10.3% STDs including HIV
0.6% Other: _____
1.0% My child does not need information on any of the above topics
0.6% Bullying

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.)

34.6%	Yes, smoke detectors only	0.8%	Yes, carbon monoxide detectors only
57.2%	Yes, both	7.4%	No
0%	Don't Know	0%	No Response

Question 62

Does your household have a Family Emergency Plan?

62.2% Yes 37.8% No 0% Don't Know 0% 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?

11.2% Yes **88.8%** No 0% 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.

28.0%	No	12.1%	More than 2 weeks
30.0%	3 days	0.4%	Don't Know
25.6%	1 Week	0%	No Response
4.0%	2 weeks		

Question 65

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

39.0%	Television	7.6%	Text message (emergency alert system)
22.7%	Radio	7.4%	Other:_____
4.7%	Internet	0.8%	Family
0%	Print media (ex: newspaper)	2.7%	Phone
2.7%	Cell Phone	0.4%	Social networking site (i.e. Facebook)
4.4%	Neighbors	4.2%	Don't Know
0.4%	Work	0%	No Response
0.8%	County Commissioners		
9.6%	County Reverse 911/Emergency Alert Phone System		

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?

75.1% Yes 15.2% No 9.0% Don't know 0.6% No Response

Question 67

What would be the main reason you might not evacuate if asked to do so?
(Choose only one answer.)

1.0% Lack of transportation
12.7% Lack of trust in public officials
9.8% Concern about leaving property behind
5.2% Concern about personal safety
3.0% Concern about family safety
5.5% Concern about leaving pets
3.9% Concern about traffic jams and inability to get out
2.9% Can't afford to evacuate (gas, hotel stay, eating out)
8.8% Other: _____
14.3% Don't know
32.8% 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 Camden County?

43.5% Yes **56.5%** No 0% No Response

Question 69

What is your race or ethnicity? *(Choose only one answer.)*

5.4%	African American/Black	**93.1%**	Caucasian/White
1.5%	Asian/Pacific Islander	0%	Native American
0%	Hispanic/Latino	0%	Other: _____

Question 70

What is your marital status?

77.4%	Married	3.6%	Separated	3.6%	No Response
0.4%	Widowed	8.2%	Never married		
6.9%	Divorced	0%	Other: _____		

Question 71

What is the highest education level you have completed? *(Choose only one answer.)*

4.6% Less than 9th grade
8.7% 9th-12th grade, no diploma
22.6% High school graduate (or GED/equivalent)
20.8% Associate's Degree or Vocational Training
16.0% Some college (no degree)
18.3% Bachelor's degree
9.0% Graduate or professional degree
0% Other: _____
0% No Response

Question 72

What is your employment status? *(Choose all answers that apply.)*

25.6% Employed full-time
39.0% Employed part-time
8.2% Unemployed
47.9% Retired
2.4% Disabled; unable to work
4.6% Student
9.7% Homemaker
0% 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*.)

6.0% Less than $20,000
3.1% $20,000 to $29,999
21.1% $30,000 to $49,999
31.5% $50,000 to $74,999
12.5% $75,000 to $100,000
7.9% Over $100,000
4.2% Don't Know
13.8% No Response

Question 74

How many individuals live in your household? Mean: **2.8**

Question 75

Do you have access to the internet?

87.5% Yes 12.5% No 0% No Response

THE END!

Thank you very much for completing the Community Health Survey!

Camden 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 12 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 public assistance such as; food stamps, Medicaid, WFFA, energy assistance, protective services, and various others that are state and federally mandated; serving all ages, genders, races. Most programs have income limits but some services do not, income varies.

- Law enforcement; serving all ages
- Provides FNS, WFFA, MA, LIEAP, Crisis Funds, Protective Services, Foster Care, etc.; serving clients of all ages. We tend to have more females due to women with children applying and lower income levels.
- Provides planning, zoning, land regulation, subdivision regulations, building permitting, GIS & code enforcement; serving developers, homeowners, contractors, adults, all races, all income levels, and a variety of education levels
- 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 parenting support; child care subsidies; 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 child care; racial make-up generally reflects the counties where people live
- Provides local government consulting; serving cities, towns 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 many developers these days, but picking up
- More middle income persons because of the economy and loss of income
- The composition of people seeking emergency food has grown by 48% over the past five years due to the poor economic climate.
- Due to increase in income levels and economic changes there have been more people in the agency applying for assistance that would not otherwise have ever been in it.

3. What do you think are the barriers residents encounter in accessing your services?

- Language
- There should not be any barriers to applying for our services. They can apply in person or by mail and beginning in April will be able to apply online. Some people will not apply due to the "stigma" of receiving "welfare".
- Do not have bilingual capabilities
- Sometimes our services are limited due to the amount of funding we have. Sometimes people simply don't know about our services.
- Transportation is a barrier for rural NENC residents followed by access. Emergency food programs tend to serve when people are traditionally working.

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)?

- We're required to have translation and interpreter services available, can usually work with those who don't have transportation.

- Interpreters
- We have interpreters available if needed for language barriers. Our agency provides medical transportation funds. We mail applications and they can be mailed back in and can go to the client's home if necessary.
- Provide handicap access facilities
- 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.
- Except for some trainings all of our services are free of charge. We provide some services in-home/on-site so there are no transportation costs. We provide child care and meals at some events to make attendance easier for families. We do not have funds to have a dedicated bilingual person.
- Usually deal with elected officials boards, so not an issue

5. Is there anything else you would like to share about your organization?

- County Government
- We are always looking for opportunities to collaborate with community.

6. What services/programs are needed that are not currently available?

- Recreational facility; low income housing; meeting/training facility
- Sewer infrastructure; retail development; job producing businesses; community recreation center
- We need a shelter for the homeless; we need job training services; we need 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?

- Rural county with great potential for growth in industry; available land; access to water areas
- Quality of schools; rural character
- 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?

- No extra money/taxes from businesses or industry that can be used for growth

- Commercial development
- I think limited funding or budget crisis cause people to think that any improvement is impossible to achieve.
- Poverty/few high paying jobs; lack of recognition that there may be solutions for family concerns; poor schools
- Education improvement; diversification of jobs; poverty

9. Looking specifically at health, what do you think are the most important health problems/health concerns in the county?

- Cancer; diabetes; kidney problems; no doctor's offices located in county
- Cancer frequency; obesity; diabetes; failing septic systems, about half of houses still using well water
- In a word "OBESITY"
- Childhood obesity/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?

- Some people do not have health insurance or have a regular doctor, so things are left untreated until they become worse.
- Diet and general lifestyle; income
- 1 in 5 residents live 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?

- Need more free or low income clinics that people could go to for treatment and education
- Education; incentives; organized programs
- Education; 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**	**2**
The county is a good place to raise children.	**1**	**2**		**1**	**1**
The county is a good place to grow old.		**3**	**1**		**1**
There are plenty of ways to earn a living in the county.					**5**
The county is a safe place to live.		**4**	**1**		
There is plenty of support for individuals and families during times of stress and need in the county.		**1**		**3**	**1**
The county has clean air.	**1**	**3**	**1**		
The county has clean water.		**3**	**2**		
Comments:					

Numbers represent the number of responses for each statement.

13. Additional thoughts or comments:

- I do have an opinion about water. Lower ½ of the county has excellent central water provided by the county; northern part has poor quality central water provided by public association. The very sparsely populated areas use well water. And even many owners with access to central water still use wells.
- Keep asking for feedback from the community