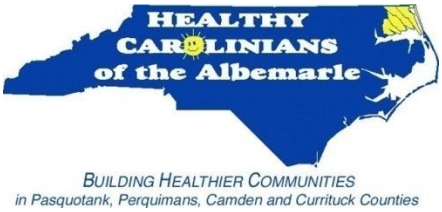
Albemarle Regional Health Services,
Albemarle Health and The Outer Banks Hospital

2013 Currituck 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, Albemarle Health, and The Outer Banks Hospital 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	Wick Baker	Ronnie Sloan
Health Director	President	President
Albemarle Regional Health Services	Albemarle Health	The Outer Banks Hospital, Inc.

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 Currituck County, the local Healthy Carolinians coalition is Healthy Carolinians of the Albemarle, which also includes Camden, Pasquotank, and Perquimans 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 Currituck 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 Currituck County residents, the consultant tapped numerous readily available secondary data sources. For data on Currituck 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 Currituck County Department of Social Services; Currituck County Schools; and other Currituck 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 Currituck County. Other important local health data sources included ARHS, and Currituck County Emergency Medical Services.

Because in any community health assessment it is instructive to relate local data to similar data in other jurisdictions, Currituck 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 Currituck 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 Currituck 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

Currituck County is found at the northern tip of the Outer Banks region of NC and is surrounded by the Currituck Sound, the Albemarle Sound, and the Atlantic Ocean. The county covers a total of 526 square miles, 262 on land and 264 in water (1,2).

The town of Currituck serves as the county seat. In addition to Currituck, the county is home to 19 other cities or towns (1,2).

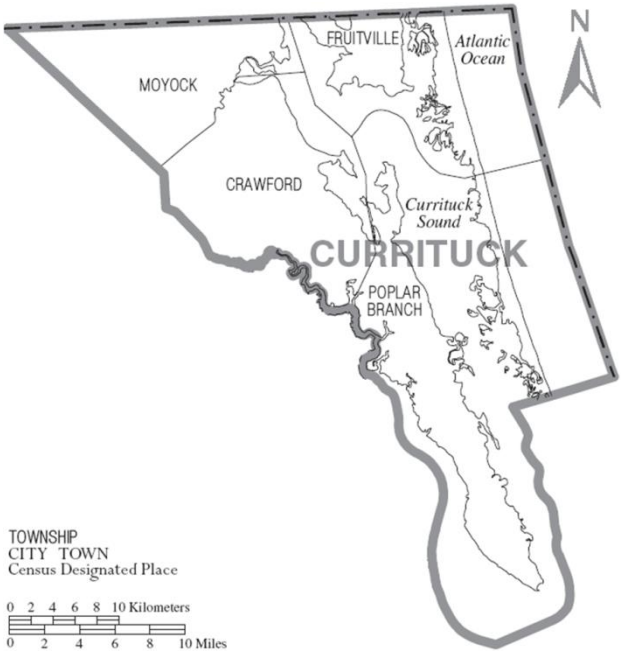
Dare County is adjacent to the southeast, Camden County to the west, Chesapeake and Virginia Beach, VA to the north, and the Atlantic Ocean to the east (1).

US Highway 158 runs through the county east to west, parallel to US Highway 58. NC 168 begins at an intersection with US 158 in Barco, where US 58 continues south towards Nags Head. NC 168 goes north into VA towards Norfolk and I-64. Southward, NC 168 runs down the spine of the Currituck County peninsula and is the gateway to the Outer Banks. I-95, a major north-south corridor, is approximately 100 miles to the west of the county (1).

The commercial airports nearest to Currituck County are the Norfolk International Airport in Norfolk, VA (approximately 48 miles) and the Newport News/Williamsburg International Airport in Newport News, VA (approximately 75 miles). There is a Greyhound bus stop just 15 miles away in Elizabeth City. The nearest Amtrak train station can be found in Norfolk, VA, 31 miles from the county seat (3,4,5).

Currituck County has a relatively mild climate. The average January temperature is 41 degrees and the average July temperature is 79 degrees. The average annual rainfall is 48 inches (6).

Figure 1. Map of Currituck County



HISTORY

Currituck County, located on the northeastern coast of NC between Kitty Hawk, NC and Chesapeake, VA, was established in 1668. Currituck was one of the first areas to be settled in the United States, is an original NC county, and was one of the five original ports in the state. In 1668, a large tract of land known as Carolina was given to eight men. These Lord Proprietors set up a government with the inhabited part known as the County of Albemarle. This county was divided into four precincts that same year: Currituck, Pasquotank, Perquimans and Chowan. William Sears was sent to the Provincial Assembly from Currituck in 1677, thus beginning a long line of involvement in Colonial matters from Currituck (7,8,9).

The first Native Americans to live in the Outer Banks area were the Yeopim and Pasquotank. They moved to the east as settlers began to immigrate to present-day Currituck County. The county's name comes from an Indian term meaning "the land of the wild geese". The fertile, rich soil, abundance of nature, and climate is what originally drew settlers to this area (8,9).

Currituck County's original courthouse was constructed in the early 1700s and was replaced in 1842. Remodeled in 1898, it now houses the governmental administrative offices. Two of the oldest buildings in the state are the Old Currituck Jail and Historic Courthouse, which the Colonial Legislature gave permission to build in 1776 (7).

By the early 1800s Currituck County had become known for its peaceful way of life and fishing villages. In 1859 the Albemarle Chesapeake Waterway was opened and provided vital passage from Maine to Florida. Today it is known as the Intracoastal Waterway and separates Currituck County's southern mainland from the northern mainland. In the late 1800s the county obtained a reputation as a "sportsman's paradise" as it attracted wealthy industrialists to its abundance of hunt clubs and wildlife. Several hunt clubs remain from this era, including the Pine Island Club, the Currituck Shooting Club, and the Whalehead Club. The Whalehead Club, often referred to as the "Crown Jewel of the Outer Banks," is still one of the county's tourist attractions. It was originally constructed in 1925 by Edward C. Knight, Jr. as a private residence for his wife and himself. In 1992, the Whalehead Club along with more than 28 acres of land were purchased by Currituck County and is now open seasonally for public tours, and the grounds are available for special events (7,8).

Religion and education played an important part in the lives of the county's people. Two examples of the county's interest in education were the Indian Town Academy (1761) and the Currituck Seminary of Learning (1789). According to a survey conducted in 1731, the majority of people in the Albemarle region were Quakers and Ana-Baptists. The first Methodist sermon in NC was preached at the Currituck County courthouse (9).

An important native son of Currituck, Thomas J. Jarvis, was appointed to the governorship after Zebulon Vance left to serve in the United States Senate. Governor Jarvis was responsible for incorporating several policies in support of NC farmers, expanding the state's education system, and eliminating state government waste. Jarvis also helped to establish the East Carolina University by being an advocate for teacher's training school (8).

Currituck County was active during the Revolutionary War with beach raids and making supplies for the Continental Army. Veterans of the American Revolution from Currituck include Sam Jarvis, John Nicholson, Dennis Dozier, Hollowell Williams, Taylor Jones, Solomon Perkins, Asabel Simmonds, John Pointer, and William and Joseph Ferebee. The Jarvis Co., 10th NC

Continental Troops were on the line at Valley Forge. Currituck's citizens have been known for their independence and aided the nation in gaining its independence. Currituckian Samuel Ferebee was present to accept and ratify the United States Constitution for the State of NC. Currituck also sent numerous natives to serve during the Civil War, including Colonel Henry Shaw, for whom Shawboro was named. Currituck recovered quickly following the Civil War due to the agricultural and duck hunting industry, enabling multiple hunting clubs to be built throughout the county (9).

The county has much to offer tourists and recreationalists. One highlight is the Currituck County Rural Center, which encourages education, cultural, and recreational enrichment. The center offers horse-riding arenas, a playground, stocked fishing ponds, picnic areas, a boardwalk and canoe and kayak launches. The Outer Banks area of the county is rich with great beaches, historic sites, shopping, dining and golfing. USA Today selected Corolla as one of the top ten beaches in the nation and described Currituck beaches as some of the "best undiscovered beaches on the East Coast." The Corolla Wild Horses have run free on Currituck's Outer Banks for more than 400 years. The Spanish mustangs can still be seen roaming the beaches. The historical pedestrian footbridge, boathouse, Currituck Beach Lighthouse and Light Keeper's House can be found within the Currituck Heritage Park which also includes the Whalehead Club and the Outer Banks Center for Wildlife Education. The Currituck Beach Lighthouse, first lit in the mid-1800s, warned ships hugging the chain of barrier islands along the NC Coast. It is made up of over one million bricks and towers at a height of 163 feet. Currituck's mainland is full of antique shops, numerous other shopping options, roadside markets, the Historic Currituck Courthouse and Old Currituck Jail. There are also six 18-hole golf courses to be enjoyed. There is also the Currituck Banks Coastal Reserve, an example of an undisturbed barrier island with foot and jeep trails available. The county's climate makes it ideal for year-round recreation (7).

Currituck County presents a blend of a past rich in heritage and a vision for future progress. It is now one of the fastest growing counties in NC, with growth highlighted by a balance between environment and development (7).

POPULATION CHARACTERISTICS

General Population Characteristics

The following general population characteristics of Currituck 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 Currituck County was 23,547.
- There was a slightly higher proportion of females than males in Currituck County: 50.4% vs. 49.6%.
- The overall median age in Currituck County was 41.3 years, slightly younger than the median age for the seven-county ARHS region and 7 years younger than for Pamlico County, an assigned peer county. The median age in Currituck County was 3.9 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
Currituck County	23,547	11,669	49.6	41.0	11,878	50.4	41.6	41.3
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

Currituck County is divided into four townships: Crawford Township, Fruitville Township, Moyock Township, and Poplar Branch Township. The following population information was derived from 2010 US Census data presented in Table 2.

- Poplar Branch Township was the largest township by population in Currituck County, accounting for over 33% of the county's population.
- Crawford Township was the second-largest township in Currituck County, with approximately 30% of the county's population.
- Fruitville Township was the smallest township in Currituck County, and was home to only about 7% of the overall county population.
- Moyock Township was the youngest township in the county in terms of median age: 38.7 years.
- Fruitville Township was the oldest township in the county, with a median age of 44.7 years.

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

Township	No. of Persons	% of County Population	Median Age
Crawford Township	7,208	30.6	41.1
Fruitville Township	1,637	7.0	44.7
Moyock Township	6,879	29.2	38.7
Poplar Branch Township	7,823	33.2	43.7
Currituck County Total	**23,547**	**100.0**	**41.3**

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

Population Growth

Table 3 presents historical population county and population projections from 1980 through 2030. From this data, it appears that the Currituck County population has been growing since 1990, and that population growth is expected to continue through 2030, although at an increasingly slower pace.

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
Currituck County	11,089	13,736	23.9	18,190	32.4	23,547	29.5	23,989	1.9	24,416	1.8
Regional Averag	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

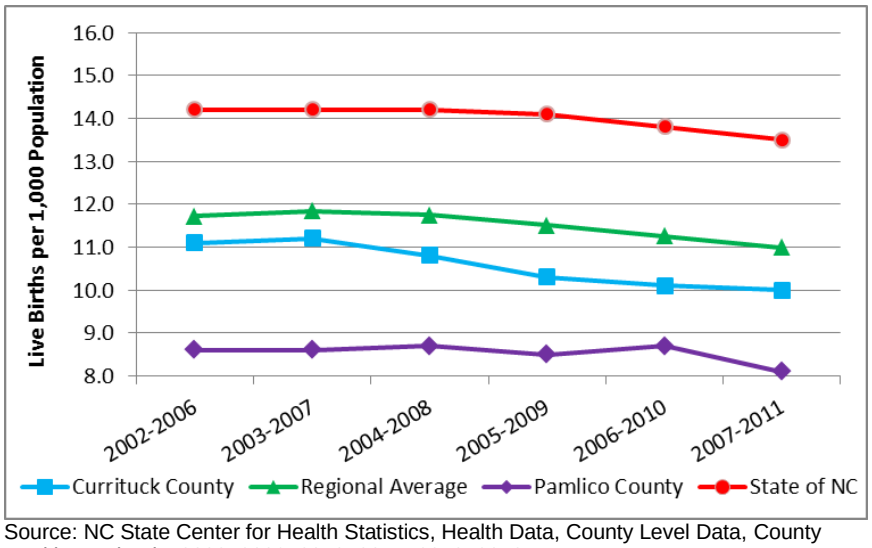
Note: percentage change is calculated.
Source: Log Into North Carolina (LINC) Database, Topic Group Population and Housing, Total Population, Population (Data Item 5001); http://data.osbm.state.nc/pls/linc/dyn_linc_main.show.

Birth Rate

Overall population growth is a function both of increase (via immigration and birth) and decrease (via emigration and death). Figure 2 illustrates that the birth rate has been decreasing in Currituck County and the comparator jurisdictions.

- In Currituck County, the birth rate decreased around 11% overall, from a high point of 11.2 live births per 1,000 population in 2003-2007 to the low point of 10.0 live births per 1,000 population in 2007-2011.
- In Pamlico County, the ARHS region, and the state of NC, the birth rate declined overall between 2002-2006 and 2007-2011.
- 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 Currituck County population appears to be *increasing* in density, as it is in the comparator jurisdictions. In all periods cited, Pamlico County was the least densely populated jurisdiction among those being compared (Table 4).

Table 4. Decadal Population Density (1980-2030)

Location	Persons per Square Mile					
	1980	1990	2000	2010 (Estimate)	2020 (Projection)	2030 (Projection)
Currituck County	43.39	52.49	69.51	101.39	128.23	154.26
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 Currituck County is less racially diverse than the population in the ARHS region overall, in comparator Pamlico County, and in NC as a whole. According to data in Table 5 from the 2010 US Census, the non-white population in Currituck County was approximately 9.7% 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 Currituck County:

- Whites composed 90.3% of the total population; regionally the comparable figure was 63.7% and statewide the figure was 68.5%.
- Blacks/African Americans composed 5.8% of the total population; regionally the comparable figure was 32.2% and statewide the figure was 21.5%.
- American Indians and Alaskan Natives composed 0.5% of the total population; regionally the comparable figure was 0.4% and statewide the figure was 1.3%.
- Asians, Native Hawaiians and Other Pacific Islanders composed 0.7% of the total population; regionally the comparable figure was 0.7% and statewide the figure was 2.3%.
- Hispanics/Latinos of any race composed 3.0% 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.	%
Currituck County	23,547	21,268	90.3	1,361	5.8	107	0.5	159	0.7	223	0.9	429	1.8	704	3.0
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 Currituck County was derived from 2010 US Census data presented in Table 6.

- All townships in Currituck County were predominately white.
- Crawford Township was the township with the largest *number* of Black/African Americans, 475; this figure represented 2.0% of the total county population and 34.9% of all Black/African American persons in the county.
- Poplar Branch Township was the township with the largest *number* of whites, 7,138; this figure represented 30.3% of the total county population and 35.6% of all the white persons in the county.
- Crawford Township was the township with the largest *number* of Hispanics/Latinos, 256; this figure represented 1.1% of the total county population and 36.4% of all Hispanic/Latino persons in the county.

Table 6. Population by Race/Ethnicity, by Township, Currituck 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	%
Crawford Township	7,208	6,411	27.2	475	2.0	36	0.2	40	0.2	102	0.4	144	0.6	256	1.1
Fruitville Township	1,637	1,590	6.8	4	0.0	4	0.0	15	0.1	0	0.0	24	0.1	22	0.1
Moyock Township	6,879	6,129	26.0	455	1.9	33	0.1	75	0.3	51	0.2	136	0.6	231	1.0
Poplar Branch Township	7,823	7,138	30.3	427	1.8	34	0.1	29	0.1	70	0.3	125	0.5	195	0.8
Currituck County Total	**23,547**	**21,268**	**90.3**	**1,361**	**5.8**	**107**	**0.5**	**159**	**0.7**	**223**	**0.9**	**429**	**1.8**	**704**	**3.0**

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 Currituck County population was derived from 2010 US Census data presented in Table 7.

- In terms of both numbers (2,144) and percent (9.1%), the largest segment of the population in Currituck County was the age group 45-49, followed by the 50-54 age group with 9.1% of the population (2,133 individuals). This reflects the same pattern as the state level, where the segment composing the largest number and percent (7.3%) of the state's population also the 45-49 age group.
- Persons 65 years of age or older composed 12.9% of the population in Currituck County, and 12.8% of the population of NC.
- Persons 19 years of age and younger composed 25.9% of the population in Currituck County, and 26.8% of the population of NC.
- Unlike NC, where women consistently outnumber men starting at age 45-49, the male/female population of Currituck County did not follow any sort of discernible pattern.

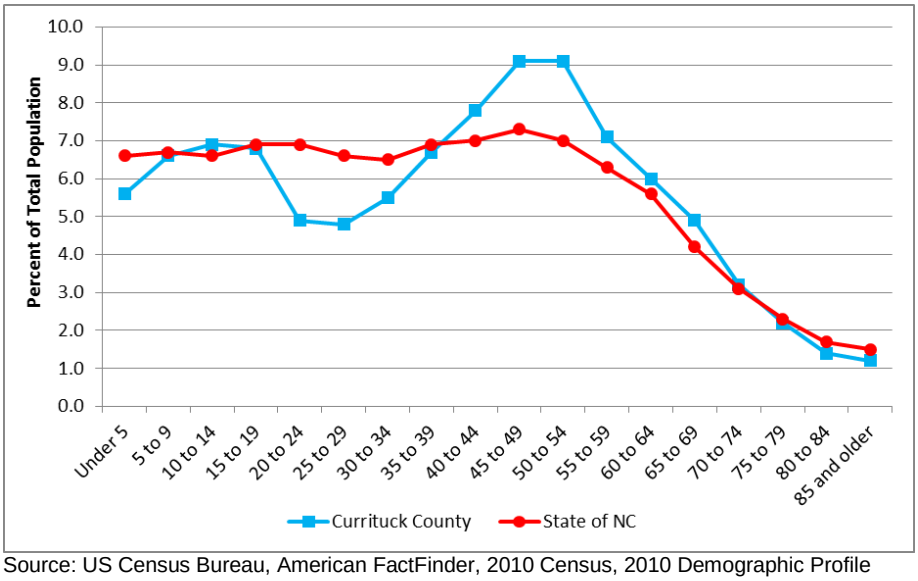
Table 7. Population Distribution by Age and Gender, Number and Percent (2010 US Census)

Age Group	Currituck 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	23,547	11,669	11,878	100.0	49.6	50.4	9,535,483	4,645,492	4,889,991	100.0	48.7	51.3
Under 5	1,329	678	651	5.6	2.9	2.8	632,040	322,871	309,169	6.6	3.4	3.2
5 to 9	1,560	750	810	6.6	3.2	3.4	635,945	324,900	311,045	6.7	3.4	3.3
10 to 14	1,618	823	795	6.9	3.5	3.4	631,104	322,795	308,309	6.6	3.4	3.2
15 to 19	1,604	847	757	6.8	3.6	3.2	659,591	338,271	321,320	6.9	3.5	3.4
20 to 24	1,164	589	575	4.9	2.5	2.4	661,573	336,648	324,925	6.9	3.5	3.4
25 to 29	1,137	551	586	4.8	2.3	2.5	627,036	311,499	315,537	6.6	3.3	3.3
30 to 34	1,302	626	676	5.5	2.7	2.9	619,557	304,807	314,750	6.5	3.2	3.3
35 to 39	1,584	809	775	6.7	3.4	3.3	659,843	324,681	335,162	6.9	3.4	3.5
40 to 44	1,840	889	951	7.8	3.8	4.0	667,308	329,652	337,656	7.0	3.5	3.5
45 to 49	2,144	1,065	1,079	9.1	4.5	4.6	698,753	341,432	357,321	7.3	3.6	3.7
50 to 54	2,133	1,102	1,031	9.1	4.7	4.4	669,893	323,702	346,191	7.0	3.4	3.6
55 to 59	1,681	833	848	7.1	3.5	3.6	600,722	285,244	315,478	6.3	3.0	3.3
60 to 64	1,410	693	717	6.0	2.9	3.0	538,039	255,034	283,005	5.6	2.7	3.0
65 to 69	1,149	560	589	4.9	2.4	2.5	403,024	188,125	214,899	4.2	2.0	2.3
70 to 74	750	380	370	3.2	1.6	1.6	294,543	133,021	161,522	3.1	1.4	1.7
75 to 79	513	238	275	2.2	1.0	1.2	223,655	94,981	128,674	2.3	1.0	1.3
80 to 84	341	143	198	1.4	0.6	0.8	165,396	63,573	101,823	1.7	0.7	1.1
85 and older	288	93	195	1.2	0.4	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.

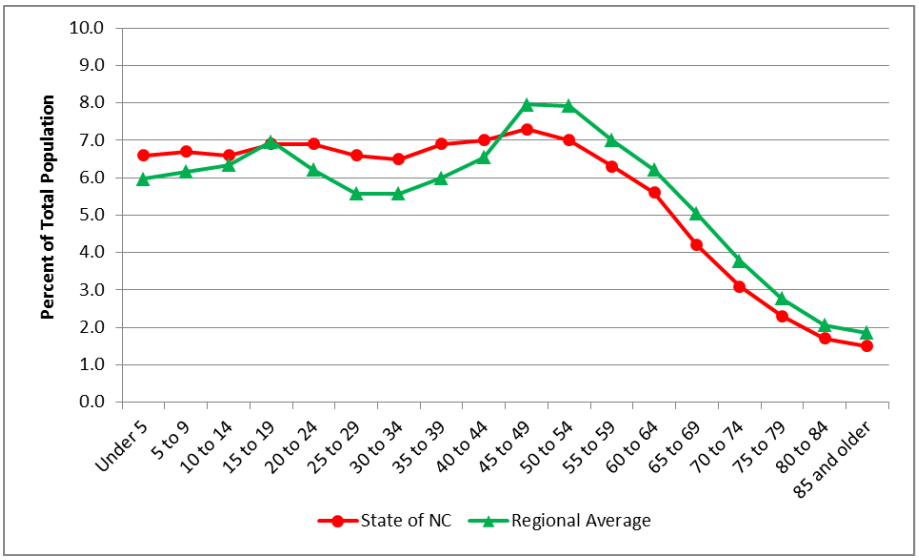
Figures 3 and 4 compare the age distribution of the NC population to the age distribution of the populations in Currituck County and the ARHS Region, respectively. In Currituck County as well as the region there was a smaller proportion (in most age groups) of young persons and a larger proportion of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

Figure 3. Population Distribution by Age, Currituck 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.

- Moyock Township was the township with the highest proportion of persons under the age of 18 (27.5%) and those aged 35-44 (16.8%).
- Crawford Township had the highest proportion of persons ages 18-24 (7.5%)
- Poplar Branch Township had the highest proportion of persons ages 25-34 (11.6%) and over age 65 (16.4%).
- Fruitville Township had the highest proportion of persons ages 45-54 (21.6%) and ages 55-64 (15.7%).

Table 8. Population by Age, by Township, Currituck 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
Crawford Township	24.2	7.5	10.0	14.2	17.7	13.4	13.1
Fruitville Township	20.5	6.8	10.1	13.1	21.6	15.7	12.3
Moyock Township	27.5	7.4	9.7	16.8	18.9	10.8	8.9
Poplar Branch Township	20.7	6.7	11.6	13.2	17.2	14.4	16.4
Currituck County Total	23.7	7.2	10.4	14.5	18.2	13.1	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

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

The following information regarding the elderly population in Currituck 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 Currituck County age 65 and older will increase through the year 2030.
- Though all segments of the elderly population will grow, the segment expected to grow by the largest percentage in the 20 years between 2010 and 2030 is the group aged 75-84, which is predicted to grow by 91.7% over that period, from 3.6% to 6.9% 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 over the age of 85, which is predicted to grow by 83% over that period, from 1.2% to 2.2% of the total county population.
- The segment of the Currituck County population age 65 and older is projected to total 7,047 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+
Currituck County	18,190	2,186	12.0	1,310	7.2	674	3.7	202	1.1
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+
Currituck County	23,547	3,041	12.9	1,899	8.1	854	3.6	288	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+
Currituck County	27,490	4,791	17.4	2,974	10.8	1,405	5.1	412	1.5
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+
Currituck County	31,324	7,047	22.5	4,216	13.5	2,157	6.9	674	2.2
Regional Total	149,095	34,752	23.3	19,056	12.8	11,566	7.8	4,130	2.8
Regional Average	21,299	4,965	n/a	2,722	n/a	1,652	n/a	590	n/a
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 Currituck County had:

- the second-lowest proportion with a graduate or professional degree (5.8%), ahead of only the regional average (4.5%);
- the highest proportion of homeowners (90%);
- the second-highest median household income ($34,741) below only Pamlico County ($35,670); and
- the second-highest monthly social security benefit ($1,107) below only the state average ($1,151).

In addition, Currituck County had the highest proportion of persons age 65 or older in the labor force (15.4%).

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)
Currituck County	27.2	5.8	90.0	15.4	$34,741	$1,107
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 976 foreign-born residents residing in Currituck County in 2010. Using a base 2010 population figure of 23,547, foreign-born residents made up 4.1% of the total county population at that time.
- Since 1980, the largest influx of the foreign-born population in Currituck County—290 persons—arrived between 2000 and 2010, an increase of 42% over that 10-year span. Over the same period, the foreign-born population region-wide increased by 70%.

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	
Currituck County	378	174	134	290	42.3
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 9,303 Currituck County households included in the statistic, an estimated 628 (6.75%) spoke a language other than English. Of these, an estimated 58 (9.2%) were linguistically isolated.
- The only linguistically isolated households in Currituck County in the period cited occurred within the Spanish-speaking population. Region-wide, there also were linguistically isolated households where Asian or Pacific island languages were spoken instead of English.

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
Currituck County	9,303	8,675	58	277	0	250	0	43	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 Currituck 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.

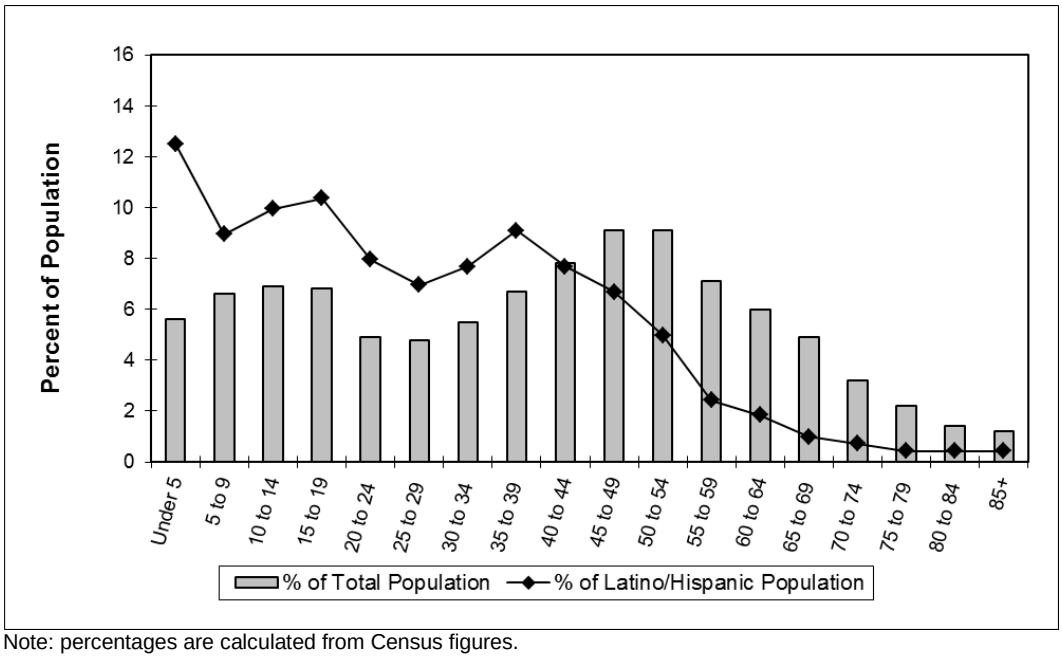
Figure 5 is a graphic depiction of the 2010 US Census population profile by age group of the total Currituck County population compared to the same profile for the Hispanic/Latino population.

- In Currituck County all age groups under the age of 40 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 Currituck County occurred in the under 5, 15-19 and 35-39 age groups. In the overall county population, the highest proportions were in age groups covering the span from 45-54.

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



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

Special Populations

Military Veterans

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

The population in Currituck County had the largest proportion of military veterans among the jurisdictions under comparison. Veterans composed 16.9% of Currituck County's overall adult civilian population in the period cited.

Although it was home to the largest proportion of military veterans among the comparators, Currituck County was *not* home to the oldest veteran population. In Currituck County, 33.7% of veterans were age 35-54, compared to 18.8% in Pamlico County. The veteran population in Pamlico County trended older: 53.3% were over the age of 65 compared to 28.3% in Currituck County.

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
Currituck County	17,366	14,423	83.1	2,943	16.9	9.9	33.7	28.2	17.4	10.9
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 51 blind or visually-impaired persons living in Currituck 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)
Currituck County	51
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.

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 Currituck County in 2012 was 100.6%, a phenomenon that occurs because of the source of the figures (see the footnote to the table, below).
- Approximately 91.1% of the registered voters in Currituck County were white and 5.6% were Black/African American, close to the proportions those racial groups represented in the overall county population (90.3% and 5.8%, 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.	%
Currituck County	21,600	17,822	100.6	16,233	91.1	1,006	5.6	54	0.3	115	0.6	529	3.0
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

While voter turnout was higher in every jurisdiction cited in elections that included a presidential race ('04, '08, '12), voter turnout was lowest in Currituck County for the most recent two presidential elections and was higher than most other jurisdictions for non-presidential elections.

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

Location	%Registered Voters that Voted				
	2004	2006	2008	2010	2012
Currituck County	54.00	45.00	67.63	47.85	64.05
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 Currituck County. These data, gathered in May 2013, show that there is a range of options for exploring faith and religion within the county.

Table 17. Religious Bodies in Currituck County (May, 2013)

Religious Bodies	Number of Congregations	Number of Adherents
African Methodist Episcopal Zion Church	3	425
American Carpatho-Russian Orthodox Diocese	1	25
Assemblies of God	2	228
Bahá'í	0	6
Catholic Church	1	290
Christian Church (Disciples of Christ)	3	0
Christian Churches and Churches of Christ	2	395
Churches of Christ	1	28
Episcopal Church	1	38
International Pentecostal Holiness Church	1	198
National Baptist Convention, USA, Inc.	1	182
Non-denominational	2	250
Southern Baptist Convention	10	3,403
United Methodist Church	7	1,573
TOTAL	35	7,041

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 primary law enforcement agency in Currituck County is the Sheriff's Office (located in Maple, NC), which is responsible for the full range of law enforcement and court related duties. They work cooperatively with the NC State Highway Patrol (10).

Fire and Rescue Departments

The six volunteer fire departments that serve Currituck County, and the county-wide agency that assists them, are listed in Table 18.

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

Department Name	Location
Carova Beach Volunteer Fire Department, Inc	Corolla
Corolla Fire and Rescue Squad	Corolla
Currituck County Department of Fire-Emergency Medical Services	Currituck
Knotts Island Volunteer Fire Department, Inc	Knotts Island
Lower Currituck Volunteer Fire Department	Grandy
Moyock Volunteer Fire Department	Moyock
Virginia Beach Fire Department-Blackwater Station	Gibbs Woods

Source: Departments, Fire Departments; Currituck County NC, website; http://www.co.currituck.nc.us/fire-departments.cfm.

Public Libraries

The Currituck County Public Library operates three branches (Main, Moyock, Corolla) and offers outreach services in several other locations (e.g. books by mail in Knotts Island and Gibbs Woods; some books available at the Fire Station in Carova). The county library is a member of the East Albemarle Regional Library System which makes the resources of surrounding counties available to Currituck County patrons (11).

Currituck County Senior Center

Currituck County operates three Senior Centers (in Barco, Knotts Island, and Powells Point) which serve residents of Currituck County who are age 55 or older. There is no membership fee and centers are open Monday through Friday. The Senior Centers provide educational programs, recreational, and socialization opportunities; offer nutritious lunchtime meals; coordinate trips; offer volunteer opportunities; and provide transportation to and from the centers (12).

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 Currituck 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.]

Currituck County Community Resource Directories and Guides

Currituck County Department of Travel and Tourism

Links to events, dining, attractions, organizations, lodging, golfing, churches, and volunteer opportunities throughout Currituck County.
Portal - http://www.visitcurrituck.com/.

Currituck County Government Directory of Services

Alphabetical list of live links to services provided by the county.
Portal: http://www.co.currituck.nc.us/

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=Currituck.

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, Currituck County and Pamlico County both were assigned a Tier 2 designation (13).

County Revenue Indicators

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

- There are large differences in tax collections between Currituck and Pasquotank counties and the other five counties 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 Currituck County were lowest over the period cited in FY2008-09, but since have rebounded and surpassed pre-recession totals.

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

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

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

Table 20 presents locally-provided data on other revenue indicators.

- With the exception of the number of permits issued and inspections conducted, all the revenue indicators cited increased between FY2011 and FY2012.

Table 20. Revenue Indicators, Currituck County (FY2010-11 and FY2011-12)

Revenue Indicator	FY2010-11	FY2011-12
Property Tax Collections	$25,940,217	$26,145,137
Sales Tax Collections	$7,067,176	$7,528,433
Occupancy Tax	$9,442,002	$9,991,095
Taxable Monthly Sales	$332,514,826	$376,757,268
Transfer Taxes	$2,215,696	$2,348,650
Permits Issued	2,542	2,282
Inspections Conducted	4,489	4,324
Fees Collected	$271,871	$307,196

Source: Josh Bass, Currituck County Chamber of Commerce. Personal communication to Dana Hamill, Health Promotion Coordinator, Albemarle Regional Health Services, December 18, 2012.

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 Currituck County and its comparators. Among these jurisdictions:

- Per capita personal income was highest statewide and second-lowest in Currituck County, where the figure was around $2,700 below the state figure.
- Median household income was highest statewide and second-highest in Currituck County, where the figure was only around $950 lower than the state figure.

- Median family income was highest in Currituck County, where it was over $13,000 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
Currituck County	$21,219	-$2,736	$42,960	-$956	$66,213	$13,293
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 Currituck 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 Currituck County that employed the largest percentage of the workforce (17.55%) was Accommodation and Food Services.
- Real Estate, Rental and Leasing accounted for the second largest percentage of the Currituck County workforce, at 14.92%, followed in third place by Administrative and Waste Services, at 12.66 and in fourth place by Construction, at 10.26%.
- 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 (14.3%), followed by Manufacturing (11.6%) and Retail Trade (11.5%).
- The average annual wage per employee in Currituck County in 2011 was $30,378, $1,114 higher than the average annual wage per employee in Pamlico County, $167 higher than the average region-wide, and $16,394 less than the average statewide.

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

Sector	Currituck 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	42	1.42	$28,566	77	2.94	$30,947	956	2.94	$32,961	29,340	0.8	$28,752
Mining	*	n/a	*	*	n/a	*	0	n/a	n/a	3,378	0.1	$45,828
Utilities	*	n/a	*	*	n/a	*	8	0.02	n/a	13,917	0.4	$76,552
Construction	304	10.26	$32,516	171	6.52	$33,715	1,119	3.45	$29,678	194,022	5.0	$41,316
Manufacturing	49	1.65	$31,235	170	6.48	$26,154	1,326	4.08	$39,387	448,566	11.6	$52,613
Wholesale Trade	104	3.51	$35,177	33	1.26	$36,201	1,187	3.66	$37,610	167,533	4.3	$61,194
Retail Trade	125	4.22	$23,239	411	15.67	$20,355	4,292	13.22	$20,787	441,664	11.5	$24,650
Transportation & Warehousing	*	n/a	*	65	2.48	$31,534	1,129	3.48	$40,975	125,395	3.3	$43,400
Information	*	n/a	*	34	1.30	$20,839	217	0.67	$32,064	72,495	1.9	$63,833
Finance & Insurance	242	8.17	$52,001	48	1.83	$31,961	1,006	3.10	$39,722	149,135	3.9	$75,088
Real Estate & Rental & Leasing	442	14.92	$27,032	17	0.65	$23,948	635	1.96	$22,342	49,753	1.3	$38,476
Professional, Scientific & Technical Services	88	2.97	$53,529	87	3.32	$39,625	1,062	3.27	$43,178	180,237	4.7	$66,951
Management of Companies & Enterprises	*	n/a	*	n/a	n/a	n/a	53	0.16	$23,125	73,019	1.9	$88,763
Administrative & Waste Services	375	12.66	$22,975	30	1.14	$41,846	1,180	3.63	$29,725	212,177	5.5	$30,258
Educational Services	*	n/a	*	452	17.23	$34,552	4,597	14.16	$34,771	382,110	9.9	$39,787
Health Care & Social Assistance	272	9.18	$28,262	405	15.44	$22,545	5,619	17.30	$29,459	552,337	14.3	$42,811
Arts, Entertainment & Recreation	192	6.48	$20,796	*	n/a	*	341	1.05	$18,092	68,749	1.8	$28,474
Accommodation & Food Services	520	17.55	$16,292	179	6.82	$12,676	2,866	8.82	$12,263	346,059	9.0	$14,877
Other Services	208	7.02	$23,296	*	n/a	*	1,136	3.50	$23,337	241,703	6.3	$43,641
Public Administration	*	n/a	*	444	16.93	$32,064	3,747	11.54	$34,317	94,676	2.5	$28,182
Unclassified	*	n/a	*	*	n/a	*	0	0.00	n/a	9,010	0.2	n/a
TOTAL/AVERAGE ALL SECTORS	2,963	100.00	$30,378	2,623	100.00	$29,264	32,476	100.00	$30,211	3,855,275	100.0	$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 Currituck County as of the end of the 3rd Quarter, 2011.

- Only one employer listed—Currituck County Board of Education—employed more than 500 people.
- The second largest employer was the Currituck County Finance Office.

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

Rank	Employer	Industry	No. Employed
1	Currituck County Board Of Education	Education & Health Services	500-999
2	Currituck County Finance Office	Public Administration	250-499
3	Resort Realty	Financial Activities	100-249
4	Twiddy & Co Of Duck Inc	Financial Activities	100-249
5	Food Lion Llc	Trade, Transportation & Utilities	100-249
6	C/O Sentara Health Center	Education & Health Services	100-249
7	Corolla Classic Vacations	Financial Activities	100-249
8	Wells Fargo Insurance Inc	Financial Activities	100-249
9	Southland Trade Corp	Trade, Transportation & Utilities	50-99
10	Brindley Beach Vacations & Sales	Financial Activities	50-99
11	Sun Realty Nags Head Inc	Financial Activities	50-99
12	Hardee's- Non Edi	Leisure & Hospitality	50-99
13	Harris Teeter Inc	Trade, Transportation & Utilities	50-99
14	The Currituck Club	Leisure & Hospitality	50-99
15	Bank Of Hampton Roads	Financial Activities	50-99
16	Clean Team	Professional & Business Services	50-99
17	Border Station Inc	Trade, Transportation & Utilities	Below 50
18	NC Department Of Transportation	Public Administration	Below 50
19	Coinjock Marina & Restaurant	Leisure & Hospitality	Below 50
20	The Pointe Golf Club	Leisure & Hospitality	Below 50
21	Hall Automotive Llc	Trade, Transportation & Utilities	Below 50
22	Employers Resource	Professional & Business Services	Below 50
23	Corolla Light Community Association	Other Services	Below 50
24	The Cotton Gin Inc	Trade, Transportation & Utilities	Below 50
25	US Postal Service	Trade, Transportation & Utilities	Below 50

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

Travel for Employment

Data gathered by the US Census Bureau on how many resident workers travel outside the county for employment can help demonstrate whether or not a county provides adequate employment opportunities for its own citizens. The economic impact of out-of-state employment is that those workers may pay taxes and spend part of their income out of state. Table 24 summarizes 2007-2011 estimated travel for employment data for Currituck County and its comparator jurisdictions.

- A moderate fraction—35%—of Currituck County resident workers were employed within the county.
- Of the 7,300 Currituck County resident workers who left the county for work, 4,683 (42%) worked out-of-state and 2,617 (23%) 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
Currituck County	11,266	6,583	58.4	3,966	35.2	2,617	23.2	4,683	41.6	7,300	64.8
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 Currituck County workers used public transportation to get to work in either 2000 or 2007-2011, and, in fact, the number decreased 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 Currituck County workers who carpooled decreased 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 decreased in all jurisdictions except NC.
- The number of Currituck County workers who worked at home more than doubled between 2000 and 2007-2011, and the comparable figure decreased 35% in Pamlico County; 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
Currituck County	6,861	6,406	1,325	1,171	38	37	43	41	191	423
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 Currituck County

Public transportation in Currituck 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 (14).

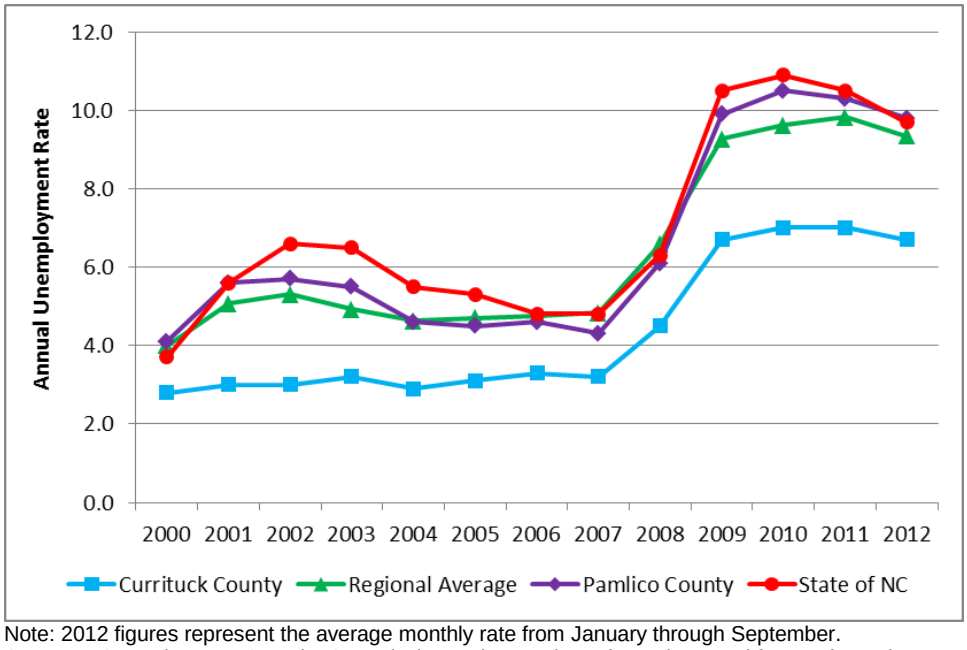
According to data provided by ICPTA, in 2012 system demand-response and subscription service ridership totaled 104,095 passenger trips and covered 914,629 vehicle miles. Approximately 39,000 trips (37%) were provided under Medicaid or other contracts, including 7,149 DSS Medicaid or WorkFirst trips, 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 (15).

Unemployment

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

- The unemployment rate in Currituck County has trended lower than the comparison jurisdictions for all years presented, though it has followed a similar pattern of improvement.
- Beginning with 2007 data, the unemployment rate began to rise sharply in all four jurisdictions. Since 2009, that rise slowed and in 2011, the unemployment rate decreased in Currituck County. 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* (16).

The agency also has removed access to previously existing data on its website, so it is not possible to present business closings and layoffs for Currituck 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 Currituck County and the seven-county ARHS region, the poverty rate fell each decade from 1970 through 2000. By 2007-2011 the ARHS regional rate was up again, by 7%.
- The Currituck County poverty rate was lower than both the regional and Pamlico County rates for all periods presented. Since 1990, the poverty rate in Currituck County has been lower than the comparable state rate.
- 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.

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
Currituck County	23.3	18.3	10.1	10.7	8.5	7.8
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 higher poverty rates than whites.

- Across all time periods and in all jurisdictions cited in the table, the poverty rate among blacks was from 1.5 to 2.6 times the poverty rate among whites.

Table 27. Persons in Poverty by Race
(2000; 2006-2010 and 2007-2011 Five-Year Estimates)

Location	2000				2006-2010				2007-2011			
	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty	Total No. in Poverty	Total % in Poverty	% White in Poverty	% Black in Poverty
Currituck County	1,922	10.7	9.2	23.6	1,964	8.5	7.9	11.8	1,811	7.8	7.4	17.1
Regional Average	2,769	16.5	8.9	29.7	3,094	16.4	9.9	29.2	3,330	17.5	10.7	30.6
Pamlico County	1,885	15.3	11.0	29.4	1,319	10.7	7.4	25.6	1,518	12.2	10.3	21.5
State of NC	958,667	12.3	8.5	22.9	1,399,945	15.5	11.2	25.6	1,473,556	16.1	11.8	26.1
	a	a	a	a	b	b	b	b	c	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 by from 28% to 74%, with the greatest average variance—64%—occurring in Pamlico County. The remaining average variances were 50.5% in Currituck 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
Currituck County	10.7	16.1	8.9	8.5	9.9	7.3	7.8	8.1	4.6
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. To help readers grasp the numbers behind the percentages in all jurisdictions, Table 30 shows the number of students *eligible for* free or reduced price lunch in several recent school years (SYs).

- The percentage of students in Currituck County enrolled for free or reduced-price school lunch averaged 29.5% over the period cited, with the highest percentage in SY2009-10. The Currituck County figure was consistently the lowest among the four jurisdictions in all eight years cited.
- In SY2010-11 the Currituck County percentage was approximately 35% lower than in NC and in Pamlico County.

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
Currituck County	32.8	24.4	23.6	24.5	27.0	33.1	35.8	35.1
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 region-wide and statewide.
- In Currituck County, the number of eligible students appeared to vary without pattern.
- 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
Currituck County	927	944	959	934	1,077	1,245	1,321	1,249
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/.

Currituck County schools provided more recent data on the utilization of the free- and reduced-price lunch benefit. Table 31 summarizes total school enrollment and the number and percent of students in each of three lunch categories as of October of 2010, 2011 and 2012 (SY2010-11, SY2011-12 and SY2012-13).

- The number of students using the free- or reduced price lunch benefit rose and fell as total enrollment rose and fell over the period cited. The percentage of students using the benefits decreased slightly, from 35.47% in SY2011-12 to 32.76% in SY2012-13.

Table 31. Number and Percent of Currituck County Students Using Paid or Subsidized School Lunch (2010-2012)

	October 2010		October 2011		October 2012	
	Number	Percent	Number	Percent	Number	Percent
Enrollment	3,917	100.00	3,919	100.00	3,843	100.00
Reduced	233	5.95	260	6.63	198	5.15
Free	1,157	29.54	1,130	28.83	1,061	27.61
Total	1,390	35.49	1,390	35.47	1,259	32.76

Source: Sandra Kinzel, Currituck County Schools. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, January 4, 2013.

County Economic Service Utilization

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

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

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

Table 32 presents state-catalogued data on the food and nutrition services caseloads and individuals over a six-year period for Currituck 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.
- If a "case" is an individual, the caseload for food and nutrition services that totaled 1,061 in September, 2012 represented 4.5% of the Currituck County population as of the 2010 US Census.

Table 32. 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
Currituck County	546	1,302	634	1,555	793	1,923	949	2,266	1,396	3,401	1,061	1,085
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 33 presents state-catalogued data on the WorkFirst caseloads and individuals over the same six year period for the same three jurisdictions cited above.

- In Currituck County, caseload and total individuals were highest in 2007.
- Region-wide, caseload and total individuals were highest in 2008.
- Statewide, caseload was highest in 2009, but total individuals were highest in 2010.

Table 33. 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
Currituck County	37	55	33	46	33	32	28	38	25	37	24	38
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 34 presents US Census Bureau data on housing by type.

- There was an average 37% vacant housing in Currituck County over both time periods cited, significantly higher than the Pamlico County, state and regional averages.
- Of the occupied housing units in Currituck County, approximately 81% were owner occupied; approximately 19% were renter occupied.
- The highest proportion of mobile homes in both periods (~32%) was in Pamlico County.
- In 2000 and in 2006-2010 the median monthly mortgage cost was highest in Currituck County; the difference between the median monthly mortgage cost in Currituck County and the comparator jurisdictions increased between the periods presented.
- Median monthly mortgage cost in Currituck County increased by 52% between 2000 and 2006-2010.
- In 2000 and in 2006-2010, the highest median gross monthly cost for rent was Currituck County.
- Median gross monthly rent cost in Currituck County increased by 34% between 2000 and 2006-2010.

Table 34. 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.	%
Currituck County	10,687	3,785	35.4	6,902	64.6	5,630	81.6	$1,028	1,272	18.4	$590	2,230	20.9
Regional Average	7,696	1,362	16.8	6,334	83.2	4,715	76.9	$854	1,619	23.1	$464	1,781	24.3
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.	%
Currituck County	14,453	5,573	38.6	8,880	61.4	7,163	80.7	$1,564	1,717	19.3	$789	2,597	18.3
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 35 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 Currituck County, and the percentage remained relatively unchanged from one period to the next.
- In both time periods cited, the percentage of *mortgaged* housing units costing more than 30% of household income was highest in Currituck County. Between the periods cited the percentage of Currituck County housing units spending more than 30% of household income on a mortgage increased 1.5%.

Table 35. 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	
		#	%		#	%		#	%		#	%
Currituck County	1,687	779	46.2	1,667	773	46.4	5,594	2,600	46.5	5,592	2,665	47.7
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, 40% of housing in Currituck County was classified as "unaffordable", compared to 29% in Pamlico County, and averages of 35% region-wide and 32% statewide (19). This data is at least partially reflective of the population living in households that pay more than 30% of the household income for housing costs.

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

There is no PHA office located in Currituck County; the nearest offices are in Elizabeth City (Pasquotank County) and Edenton (Chowan County) (20). At the time this report was developed, there was one HUD-subsidized single-family home available in Currituck County, in Grandy (21). A search on the HUD affordable apartment website identified one low-rent apartment facility in the county: an ARC facility in Poplar Branch for developmentally disabled persons (22).

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

Homelessness

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

HOUSEHOLDS

Table 36 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 Currituck County was the highest.
- The percent of one-person households in Pamlico County—27.8%—was the highest among all four jurisdictions. The figure for Currituck County was the lowest.
- The percent of one-person households where the resident was age 65 or older in Currituck County—37.8%—was the second-lowest among the jurisdictions being compared, higher only than the state.

Table 36. 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
Currituck County	8,880	2.64	1,748	19.7	660	37.8
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 37 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 lowest in Currituck County, and highest in Pamlico County, in both periods cited.
- In Currituck County the percent of children under the age of 18 *not* living with both parents increased by 7% (from 31.2% to 33.5%) between 2000 and 2010. Statewide the increase was 14% (from 35.5% to 40.4%).
- In Currituck County the percent of *female* family householders with children under the age of 18 decreased slightly (from 15.8% to 15.6%) between 2000 and 2010 and it was the lowest figure of the jurisdictions presented in both time periods.
- Over the same period, the percent of *male* family householders with children under the age of 18 remained unchanged at 7.4%.
- Statewide between 2000 and 2010 there was a decrease of 4% in the percent of female family householders with minor children (from 22.8% to 22.0%), and a 5% increase in the percent of male family householders with minor children (from, 6.1% to 6.4%).

Table 37. 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	%
Currituck County	5,203	2,316	367	15.8	172	7.4	4,607	3,171	68.8	1,436	31.2
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	%
Currituck County	6,630	3,140	490	15.6	233	7.4	5,591	3,720	66.5	1,871	33.5
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 38 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 Currituck County for the period cited, an estimated 60.3% 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 regional average was the lowest comparable figure.

Table 38. 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. #	%
Currituck County	471	284	60.3
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 (25).

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

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

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

According to data in Table 39:

- Of the ten licensed child care centers in Currituck County at the time of the report, none was a five-star facility and four (40%) were four-star facilities.
- Of the eight licensed family child care homes in Currituck County, there were two five-star facilities (25%); one (12.5%) was a four-star facility and three (37.5%) were a three-star facility.

Table 39. NC-Licensed Child Care Facilities in Currituck County (November, 2012)

Type of Facility	Number
Child Care Centers (10)	
Five-star	0
Four-star	4
Three-star	5
Two-star	0
One-star	0
GS 110-106 (Church-affiliated)	1
Temporary	0
Family Child Care Homes (8)	
Five-star	2
Four-star	1
Three-star	3
Two-star	1
One-star	1

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 40 presents total enrollment summaries for child care facilities.

Table 40. 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
Currituck County	309	310	273	332	58	47	45	39
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 41 presents the number of children in each jurisdiction that received WorkFirst Working Connections Child Care Subsidies.

- The number of children in Currituck 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 41. Number of Children Receiving WorkFirst Child Care Subsidy (2007-2010)

Location	2007	2008	2009	2010
Currituck County	51	52	44	35
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 Currituck County, but there are several institutions of higher education in the ARHS region accessible to Currituck 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 (26).

Roanoke-Chowan Community College

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

RCCC has established formal transfer agreements with the 16-member University of North Carolina System and several private colleges to provide transfer opportunities for students to pursue higher-level degrees. RCCC has expanded its distance learning studies to include Internet-based courses, and has increased efforts with area school systems to provide more opportunities for high school students to take college courses, either on the 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 (27).

Chowan University

Chowan University is a small (~1,300 students) four-year liberal arts university located in Murfreesboro, NC (Hertford County). Chowan University is affiliated with the Southern Baptist Association. The university offers over 63 academic programs and the recently-opened School

of Graduate Studies provides students the opportunity to earn Masters Degrees. Currently, Chowan offers the Master of Education (M.Ed.) degree with advanced teacher license.

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

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

Martin Community College

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

Elizabeth City State University

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

East Carolina University

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

ECU is the state’s leader in distance education, offering more than 60 degrees and certificate programs in subjects such as business, education, health care, and technology. Two of the top

distance-education programs in the nation are run by ECU's colleges of nursing and education (31).

Primary and Secondary Education

Schools and Enrollment

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

- There are ten public schools in the Currituck County school district: six elementary schools, two middle schools, and two secondary schools. There also is one private school in the county (Table 42).

Table 42. Number of Schools (SY2011-12)

Location	Public				Private			
	Elementary (PK-8)	Middle (4-8)	Secondary (9-12)	Combined	K-12	K-9/8	9-12	Other
Currituck County Schools	6	2	2	0	0	0	0	1
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.

- Currituck County High School in Barco was the largest school in the district, with a SY2011-12 enrollment of 953. Moyock Middle School in Moyock was the second largest school in the district, with a SY2011-12 enrollment of 573. (Table 43).

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

School	Location	School Type/Calendar	Grade Range	Enrollment SY2011-12
Central Elementary	Barco	Regular School, Traditional Calender	PK-5	188
Currituck County High	Barco	Regular School, Traditional Calender	9-12	953
Currituck County Middle	Barco	Regular School, Traditional Calender	6-8	370
Jarvisburg Elementary	Jarvisburg	Regular School, Traditional Calender	PK-5	223
Knotts Island Elementary	Knotts Island	Regular School, Traditional Calender	K-5	113
Moyock Elementary	Moyock	Regular School, Traditional Calender	K-5	470
Moyock Middle	Moyock	Regular School, Traditional Calender	6-8	573
Shawboro Elementary	Shawboro	Regular School, Traditional Calender	K-5	499
The JP Knapp ECH (i)School	Currituck	Regular School, Traditional Calender	9-12	229
WT Griggs Elementary	Poplar Branch	Regular School, Traditional Calender	K-5	255

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 Currituck County declined every year between SY2005-06 and SY2010-11 before rebounding in SY2011-12; a similar pattern occurred across the ARHS region, with continuous enrollment declines from SY2007-08 through SY2010-11 (Table 44).

Table 44. K-12 Public School Enrollment (SY2005-06 throu

Location	Number of Students						
	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11	SY2011-12
Currituck County Schools	4,269	4,254	4,207	4,169	4,096	4,067	4,167
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

gh SY2011-12)

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

Educational Attainment

Table 45 presents data on several measures of educational attainment.

- Among the four jurisdictions being compared, in a 2006-2010 US Census Bureau estimate, Currituck County had the highest percentage of high school graduates (84.7%) 1.3% higher than the state average and 3.5% higher than the regional average.
- In the same period, Currituck County had the second *lowest* percentage of residents with a bachelor's degree or higher (17.2%), 34% lower than the state average of 26.1%.
- According to SY2011-12 End of Grade (EOG) Test results, the percentage of third graders *and* eighth graders in Currituck County public schools demonstrating grade-appropriate proficiency in both reading and math were highest in Currituck County.
- The average SAT score for Currituck County students was 990, with a participation rate of 69%.

Table 45. Educational Attainment

Location	% Population High School Graduate or Higher	% Population Bachelor's Degree or Higher	% 3rd Graders At or Above Grade Level, ABCs EOG Reading Test	% 3rd Graders At or Above Grade Level, ABCs EOG Math Test	% 8th Graders At or Above Grade Level, ABCs EOG Reading Test	% 8th Graders At or Above Grade Level, ABCs EOG Math Test	SAT Participation Rate	Average Total SAT Scores
	2010	2010	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12	SY2011-12
Currituck County	84.7	17.2	76.5	90.7	82.7	95.0	69%	990
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 46 presents data on local, state and federal expenditures on public education.

- In the 2011-12 school year the total per pupil expenditure (the sum of Federal, state and local investments) in Currituck County schools ($8,509) was 12% lower than the average for the ARHS region ($9,645), and 1% higher than the average for the state as a whole ($8,417).
- In all jurisdictions, the state contributed the highest proportion to the total per-pupil expenditure: 63% in Currituck County schools, an average of 69% region-wide, and an average of 64% statewide.

Table 46. Educational Expenditures (SY2011-12)

Location	Per-Pupil Expenditure			
	Local	State	Federal	Total
Currituck County Schools	$2,353	$5,331	$825	$8,509
Regional Average	$1,698	$6,655	$1,292	$9,645
State of NC	$1,904	$5,355	$1,158	$8,417

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

High School Drop-Out Rate

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

- The high school drop-out rate in Currituck County schools fluctuated over the period cited in the table, but was highest (5.84) in SY2004-05 and lowest (3.16) in SY2009-10.

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

Location	Drop-Out Rate						
	SY2004-05	SY2005-06	SY2006-07	SY2007-08	SY2008-09	SY2009-10	SY2010-11
Currituck County Schools	5.84	4.71	4.04	4.79	4.19	3.16	3.73
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

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

Graduation Rate

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

- The overall graduation rates for all student categories shown in the table except economically disadvantaged students were highest for students of Currituck County schools.
- Historical graduation rate data provided by Currituck County Schools demonstrates an overall increase in the rate at which high school students graduate in four years. From a low point of 72.8% in 2005-06, the rate increased 20% to the high point in SY2011-12 (87.4%) (32).

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

Location	All Students			Male			Female			Economically Disadvantaged		
	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating	Total Students	# Students Graduating	% Students Graduating
Currituck County School	207	181	87.4	116	106	88.8	91	78	85.7	59	46	78.0
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 49 summarizes crime and violence catalogued by the NC Department of Public Instruction for schools in Currituck County, the ARHS region, Pamlico County, and the state overall.

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

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

Location	SY2004-05		SY2005-06		SY2006-07		SY2007-08		SY2008-09		SY2009-10		SY2010-11	
	No. Acts[1]	Rate[2]	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate	No. Acts	Rate
Currituck County Schools	10	2.6	25	6.3	22	5.4	32	8.0	59	14.9	31	8.0	39	10.1
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 50 presents data summarizing disciplinary activity in the public schools. Since the data represent counts of activity of school systems of different sizes, direct comparisons are problematic.

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

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

School System	SY2008-09			SY2009-10			SY2010-11		
	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions	No. Short-Term Suspensions	No. Long-Term Suspensions	No. Expulsions
Currituck County Schools	585	17	0	571	0	0	595	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.

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

- The crime rates in Currituck County fluctuated with little discernible pattern over the period presented, although there was in increase in all three rates between 2010 and 2011.
- The rate of violent crime in Currituck County was consistently lower than the comparable state rate in all years cited.
- The largest component of index crime in all four jurisdictions was property crime.

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

Location	Crimes per 100,000 Population														
	2007			2008			2009			2010			2011		
	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime	Index Crime	Violent Crime	Property Crime
Currituck County	2,453.4	187.1	2,266.3	2,351.4	185.4	2,165.9	2,894.0	201.9	2,692.1	2,876.3	201.6	2,674.8	3,404.2	225.0	3,179.3
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 52 presents detail on index crime committed in Currituck 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 cited.

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

Type of Crime	Number of Crimes					
	2006	2007	2008	2009	2010	2011
Violent Crime						
Murder	1	1	1	0	1	2
Rape	6	1	4	3	2	6
Robbery	9	1	2	3	0	2
Aggravated Assault	47	41	37	42	45	43
Property Crime						
Burglary	194	179	170	175	160	202
Larceny	287	334	325	449	462	520
Motor Vehicle Theft	21	20	19	16	15	27
Total Index Crimes	565	577	558	688	685	802

Source: NC State Bureau of Investigation, Crime in North Carolina, North Carolina Crime Statistics, Crime Statistics in Detailed Reports (By Year), 2011 Annual Reports, County Offenses Ten Year Trend, http://crimereporting.ncdoj.gov/ ,

Other Criminal Activities

Table 53 summarizes data on other types of criminal activities.

- As of January 2, 2013 there were 34 registered sex offenders in Currituck 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 Currituck 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 Currituck County during the period from 2005 through 2011. Over the same period, 1,664 meth lab busts were recorded statewide.

Table 53. Other Criminal Activity

Location	No. Registered Sex Offenders (1/2/13)	No. Gangs	No. Methamphetamine Lab Busts						
		2012	2005	2006	2007	2008	2009	2010	2011
Currituck County	34	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 54 presents a summary of juvenile justice complaints and outcomes for 2010 and 2011.

- Between 2010 and 2011 the *number* of complaints of *undisciplined* youth in Currituck County increased from 6 to 11 (83%), and the *rate* of *undisciplined* youth increased from 1.68 to 2.84 (69%).
- Over the same period the *number* of complaints of *delinquent* youth in Currituck County decreased from 133 to 106 (20%), and the *rate* of *delinquent* youth decreased from 45.97 to 33.57 (27%).
- Twelve Currituck County juveniles were sent to secure detention in 2010; nine were sent in 2011.
- No Currituck County juveniles were sent to youth development centers or transferred to Superior Court in either 2010 or 2011.

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

Location	Complaints								Outcomes					
	No. Undisciplined		No. Delinquent		Rate Undisciplined (Complaints per 1,000 Ages 6 to		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
Currituck County	6	11	133	106	1.68	2.84	45.97	33.57	12	9	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 55 summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of sexual assault from FY2004-05 through FY2010-11.

- Note that since the figures are counts and not rates, they are difficult to compare from one jurisdiction to another in a meaningful way.
- There were many missing figures for Currituck 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 55. Sexual Assault Complaint Trend (FY2004-05 through FY2010-11)

Location	No. of Individuals Filing Complaints ("Clients")						
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11
Currituck County	n/a	n/a	n/a	n/a	n/a	129	79
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 56 presents details on the types of sexual assaults reported in FY2010-11.

- The largest proportion of sexual assault complaints in Currituck County (~75%) was by adult survivors of child sexual assault; the next largest proportion (8.9%) 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 56. Types of Sexual Assaults (FY2010-11)

Location	Total Assault Clients	Type of Assault													
		Adult Rape		Date Rape		Adult Survivor of Child Sexual Assault		Marital Rape		Child Sexual Offense		Incest		Other	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	79	7	8.9	5	6.3	59	74.7	6	7.6	1	1.3	0	0.0	1	1.3
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 57 details the types of offenders involved in sexual assaults in FY2010-11.

- In Currituck County the most common offender in sexual assault complaints was a relative (72.2%), followed by an acquaintance (24.1%).
- Region-wide, the most common offender was a relative (51.4%), followed by an acquaintance (33.1%).
- Statewide the most common offender was a relative (36.6%), followed closely by an acquaintance (33.1%).

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

Location	Total Offenders	Type of Offender									
		Relative		Acquaintance		Boy/Girl Friend		Stranger		Unknown	
		No.	%	No.	%	No.	%	No.	%	No.	%
Currituck County	79	57	72.2	19	24.1	3	3.8	0	0.0	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 58 summarizes data from the Domestic Violence Commission of the NC Council for Women on the number of individuals who filed complaints of domestic violence from FY2004-05 through FY2010-11.

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

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

Location	No. of Individuals Filing Complaints ("Clients")						
	FY2004-05	FY2005-06	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11
Currituck County	282	182	177	154	146	272	261
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 59 provides details on the services received by domestic violence complainants in FY2010-11.

- The 261 domestic violence clients in Currituck County received a total of 3,131 services.
- The largest numbers of services received by domestic violence complainants in Currituck County were advocacy (1,088) followed by information (701), and counseling (648).
- The largest numbers of services received by complainants region-wide were for advocacy, information and counseling.
- The local domestic violence shelter in Currituck County was full on 114 days and the shelter in Pamlico County was never full.

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

Location	Total Domestic Violence Clients	Services Received									Days Local Shelter was Full
		Total	Information	Advocacy	Referral	Transport	Counseling	Hospital	Court	Other	
Currituck County	261	3,131	701	1,088	445	80	648	0	169	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 (33).

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 60 presents child protective services data from the state's Child Welfare website for the period from FY2004-05 through FY2011-12.

- The total number of findings of child abuse, neglect or dependency in Currituck County fluctuated annually without a clear pattern. For the period cited, the highest number of findings was 212 in FY2004-05, and the lowest was 145 in FY2011-12. The average number of reports of child abuse, neglect or dependency per year throughout the period cited was 183.
- 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 54 in FY2005-06 to a low of 17 in FY2004-05, and averaged approximately 30 per year.

Table 60. Reports of Child Abuse and Neglect, Currituck 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	212	198	193	162	199	184	173	145
No. Substantiated[1] Findings of Abuse and Neglect	1	1	2	8	0	5	6	5
No. Substantiated Findings of Abuse	0	4	1	2	1	3	0	0
No. Substantiated Findings of Neglect	16	49	18	15	26	21	42	17
Services Recommended	72	80	65	66	83	87	41	59
No. Unsubstantiated Findings	58	32	43	58	53	40	39	39
Services Not Recommended	51	15	26	8	9	2	18	7

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

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

- All five of the substantiated findings of abuse and abuse and neglect involved white children.
- For the year cited, two of the cases involved children age 6-12, and three involved a teenager (age 13-17).
- Four of the children were females, one was a male.

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

Finding	Total	White	African-American	American Indian/ Alaskan	Other Races	Hispanic	Non-Hispanic	Male	Female	Ages 0-5	Ages 6-12	Ages 13-17	Missing Age Information
Abuse and Neglect	5	5	0	0	0	0	5	1	4	0	2	3	0
Neglect	17	12	2	0	3	0	17	7	10	7	7	3	0
Services Needed	8	8	0	0	0	0	8	6	2	6	0	2	0
Services Provided, No Longer Needed	12	6	3	0	3	0	12	5	7	8	4	0	0
Services Recommended	59	43	10	0	6	5	54	29	30	27	21	10	1
Unsubstantiated	37	33	3	0	1	3	34	15	22	14	15	8	0
Services Not Recommended	7	7	0	0	0	0	7	5	2	6	1	0	0

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

According to data provided by Currituck County Department of Social Services staff, an average of 30 children were in DSS custody in FY2011-12. An average of 28 children received case management/case planning services that same year (34).

Adult Maltreatment

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

- Note that reports "screened out" do not meet the legal definition of potential maltreatment and are not investigated further.
- In Currituck County the proportion of reports screened in for further investigation and services was 51% in 2009 and 69% in 2011.
- Services most frequently provided to Currituck County adult maltreatment victims were outreach and information and referral.

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

Location	2009										
	Reports Received	Reports Screened In	Reports Screened Out	Information and Referral	Outreach	Law Enforcement	DHSR or Home Specialist	District Attorney	Veterans Admin	Division of Medical Assistance	Social Security
Currituck County	37	19	18	7	3	3	0	3	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
Currituck County	26	18	8	3	6	1	0	1	0	0	1
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

According to data provided by the same Currituck County DSS source cited earlier, in FY2011-12, a total of 20 adult protective service reports were received. An average of three adults a month received adult protective services and an average of 10 adults received guardianship services each month.

CHAPTER THREE: HEALTH RESOURCES

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

MEDICAL INSURANCE

Medically Indigent Population

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

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

- Over the period cited in the table, the percent of the Currituck County population overall (age 0-64) without health insurance increased between 2006-07 and 2008-9 before falling again the next biennium.
- In all jurisdictions the younger age group (0-18) had a lower percent without health insurance than the older age group (19-64).
- The percent of uninsured in the younger age group in Currituck County decreased from 10.5% in 2006-2007 to 7.0% in 2010-2011, a 33% improvement.

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

Location	2006-2007			2008-2009			2010-2011		
	0-18	19-64	0-64	0-18	19-64	0-64	0-18	19-64	0-64
Currituck County	10.5	23.2	19.4	9.2	24.5	20.2	7.0	19.8	16.2
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 64 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 Currituck County and NC as a whole the *number* of children eligible increased from year to year during the period shown.
- In Currituck County the *percent* of eligible children enrolled in Health Choice increased between FY2008 and FY2009, and decreased between FY2009 and FY2010. In FY2010 59.3% of the eligible children were enrolled in Health Choice.
- Among the jurisdictions cited, Currituck County demonstrated the lowest percentage of eligibles who were enrolled in NC Health Choice

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

Location	FY2008			FY2009			FY2010		
	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled	# Children Eligible	# Eligibles Enrolled	% Eligibles Enrolled
Currituck County	245	144	58.8	270	167	61.9	258	153	59.3
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 65 summarizes data on Medicaid eligibility and expenditures for the period from FY2008 through FY2010.

- The number and percent of Currituck County residents eligible for Medicaid increased from one year to the next throughout the period cited.
- The expenditure/cost per adult enrollee in Currituck County rose from FY2008 to FY2009 and decreased in FY2010.

- Currituck County had the lowest proportion of Medicaid-eligible residents of the four jurisdictions throughout the period cited, averaging 10.6%. The average statewide was approximately 16%.

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

Location	FY2008			FY2009			FY2010		
	No. Eligible	% Eligible	Average Cost per Adult Enrollee	No. Eligible	% Eligible	Average Cost per Adult Enrollee	No. Eligible	% Eligible	Average Cost per Adult Enrollee
Currituck County	2,274	10.0	$6,130	2,534	11.0	$6,317	2,683	11.0	$5,863
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 66 presents a four-year summary of the participation of eligible children in the NC HealthCheck program.

- The participation ratio for Currituck County children decreased 35% between FY2007-08 and FY2010-11 even as the number of eligible children due initial or periodic Health Check EPSDT services increased 73% during the same period. Similar phenomena were observed in the other three jurisdictions as well.
- The Health Check participation ratio in Currituck County was the second-lowest among the four jurisdictions during the last two fiscal years cited.

Table 66. 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
Currituck County	1,749	939	71.6	1,923	1,011	74.3	2,009	1,660	49.4	2,041	1,628	46.3
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; Currituck 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 67 summarizes CCNC/CA enrollment data for the period from 2007-2010.

- The percent of Medicaid eligible persons in Currituck County enrolled in CCNC/CA decreased 17% overall between 2007 and 2010, while the number of county residents enrolled in Medicaid increased by 24% 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 67. 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
Currituck County	2,170	59	2,274	59	2,534	61	2,683	49
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 68 summarizes dual Medicare/Medicaid enrollment data for the period from 2007-2010.

- The lowest percentage of dual enrollees every year was in Currituck County. The highest percentage of dual enrollees every year was in Pamlico County.

Table 68. Medicare/Medicaid Dual Enrollment (2007-2010)

Location	Percent of Eligibles Dually Enrolled			
	2007	2008	2009	2010
Currituck County	14.9	14.2	12.7	12.3
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 69 presents those data (which for simplicity's sake will be referred to simply as the "ratio") for Currituck 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 Currituck 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 *except* dentists.
- Currituck County ratios for physicians (MDs) improved slightly between 2009 and 2011, but ratios for primary care physicians, pharmacists, and registered nurses (RNs) worsened over the same period.

Table 69. 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
Currituck County	3.4	2.1	2.1	22.6	1.6	3.8	2.1	1.7	21.7	1.7	3.8	1.7	2.1	22.0	1.3
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 the health professional ratio for dentists in Currituck County and the Albemarle region are low to begin with, accessing dental care may be a tremendous problem for Medicaid enrollees. Table 70 lists dental practices in the Albemarle Region (i.e., northeastern NC and southeastern VA) that accept Medicaid and/or NC Health Choice clients. Only one of these practices was in Currituck County and the provider only accepts NC Health Choice clients. 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 70. 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, Patrick 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 71 lists the number of active health professionals in Currituck County and the ARHS region, by specialty, for 2011:

- There was no representation in Currituck County from the specialties of general practice, obstetrics and gynecology, pediatrics, certified nurse midwifery, occupational therapy, optometry, podiatry, psychology, and respiratory therapy.
- There were five or fewer practitioners in Currituck County in all the remaining specialties listed.
- At the regional level there were no general practitioners and only one podiatrist listed in 2011.

Table 71. Number of Active Health Professionals, by Specialty (2011)

Category of Professionals	Currituck County	Regional Total
Physicians		
Primary Care Physicians	4	64
Family Practice	3	23
General Practice	0	0
Internal Medicine	1	21
Obstetrics/Gynecology	0	11
Pediatrics	0	9
Other Specialities	5	96
Dentists and Dental Hygienists		
Dentists	5	26
Dental Hygienists	2	29
Nurses		
Registered Nurses	52	823
Nurse Practitioners	1	28
Certified Nurse Midwives	0	6
Licensed Practical Nurses	38	284
Other Health Professionals		
Chiropractors	2	10
Occupational Therapists	2	22
Occupational Therapy Assistants	0	15
Optometrists	0	6
Pharmacists	3	67
Physical Therapists	4	36
Physical Therapy Assistants	3	41
Physician Assistants	2	33
Podiatrists	0	1
Practicing Psychologists	0	12
Psychological Assistants	1	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 72 lists the number of general hospital beds in the four jurisdictions being included in this report. There is no hospital in either Currituck County or Pamlico County.

Table 72. Number of General Hospital Beds[1]
(2004-2010)

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

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

Other Hospitals

Table 73 lists the eight hospitals in northeastern NC that serve residents of Currituck County. Of these, only Vidant Medical Center in Greenville offers a Trauma Center (rated for Level I care).

Table 73. 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 Currituck County also might seek medical services in southeastern VA, primarily in the area referred to as the *Tidewater Region*. Table 74 lists hospitals in the cities in this region.

Table 74. 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 Currituck County, other facilities in the region see all Currituck 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 Currituck County residents who were admitted to the emergency departments of Vidant Bertie, Vidant Chowan, Vidant Roanoke Chowan Hospitals, Albemarle Hospital, and The Outer Banks Hospital in recent years.

Emergency Department Admission Demographics

While the majority of Currituck County residents who need hospital services visit Albemarle Hospital and The Outer Banks Hospital, they do occasionally visit the other three hospitals in the region as well. Table 75 summarizes the total of ED visits by Currituck County residents at each of those four hospitals for the period FY2010-FY2012.

Table 75. Emergency Department Admissions, Currituck County Residents, by Hospital (FY2010-FY2012)

Hospital	Number of ED Admissions		
	2010	2011	2012
Vidant Bertie Hospital	3	4	2
Vidant Chowan Hospital	21	22	23
Vidant Roanoke-Chowan Hospital	10	14	3
Albemarle Hospital	2,359	2,818	3,173
The Outer Banks Hospital	1,915	1,926	2,036
Total No. ED Visits by Currituck County Residents	4,308	4,784	5,237

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

Residence (Table 76)

- Since very few Currituck County residents visit the EDs of Vidant Bertie Hospital, Vidant Chowan Hospital or Vidant Roanoke-Chowan Hospital (see above), the Currituck County component is a small fraction of total ED traffic in those EDs. The data below refers instead to the EDs of Albemarle Hospital and The Outer Banks Hospital only.
- Over the three-year period cited 9.8% of all Emergency Department admissions of ARHS region patients at Albemarle Hospital and The Outer Banks Hospital were residents of Currituck County.
- The largest proportion of Currituck County residents who were admitted to the EDs of these hospitals in each year cited (three-year average of 2.3% of all ED admissions of ARHS region patients) were residents of Grandy.

Table 76. Percent ED Admissions by Patient Residence, Currituck County Residents, Albemarle Hospital and The Outer Banks Hospital (FY2010-FY2012)

Location	Percent of ED Admissions		
	2010	2011	2012
Aydlett	0.3	0.3	0.2
Barco	0.7	0.8	0.7
Coinjock	0.4	0.3	0.4
Corolla	0.3	0.3	0.2
Currituck	0.2	0.3	0.3
Grandy	2.5	2.3	2.0
Harbinger	0.4	0.3	0.3
Jarvisburg	0.7	0.7	0.7
Knotts Island	<0.1	<0.1	<0.1
Maple	0.1	0.1	0.1
Moyock	2.1	1.9	2.2
Point Harbor	0.3	0.3	0.3
Poplar Branch	0.4	0.4	0.4
Powells Point	1.0	1.1	1.1
Shawboro	0.7	0.7	0.7
Total Currituck County Patients	10.1	9.8	9.6
Total No. ED Visits by ARHS Region Residents	42,113	48,613	54,119

Source: Albemarle Health and The Outer Banks Hospital.

Age (Table 77)

- The largest proportion of Currituck County residents who were admitted to the two EDs 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 77. Percent ED Admissions by Patient Age, Currituck County Residents Albemarle Hospital and The Outer Banks Hospital (FY2010-FY2012)

Age Group	Percent of ED Admissions		
	2010	2011	2012
Adult	7.0	6.8	6.7
Pediatric	1.9	1.8	1.9
Senior	1.2	1.2	1.0
Total Currituck County Patients	10.1	9.8	9.6
Total No. ED Visits by ARHS Region Residents	42,113	48,613	54,119

Adult = age 18-64; Pediatric = age 0-17; Senior = age 65 and older
Source: Albemarle Health and The Outer Banks Hospital.

Race (Table 78)

- Whites composed the largest proportion of Currituck County residents admitted to the two EDs; whites from Currituck County composed an annual average of 8.3% of all ED admissions of ARHS region residents to the two hospitals over the period cited.
- Blacks composed the second-largest proportion of Currituck County residents admitted to the two EDs; blacks from Currituck County composed an annual average of 1.2% of all ED admissions of ARHS region residents to the two hospitals over the period cited.

Table 78. Percent ED Admissions by Patient Race, Currituck County Residents Albemarle Hospital and The Outer Banks Hospital (FY2010-FY2012)

Race/Ethnicity	Percent of ED Admissions		
	2010	2011	2012
Asian	<0.1	<0.1	<0.1
Black	1.3	1.0	1.3
Hispanic	0.2	0.2	0.1
Indian (Native or Alaskan)	<0.1	<0.1	<0.1
Other	<0.1	0.1	0.1
Unknown	<0.1	<0.1	<0.1
White	8.6	8.3	8.0
Total Currituck County Patients	10.1	9.8	9.6
Total No. ED Visits by ARHS Region Residents	42,113	48,613	54,119

Source: Albemarle Health and The Outer Banks Hospital.

Payer (Table 79)

- Self-pay was the predominant primary payer among Currituck County residents who were admitted to the two EDs over the period cited, averaging 3.1% of all ED visits by ARHS region residents annually.
- Medicaid was the second-most frequent primary payer among Currituck County admissions to the EDs, averaging 2.4% of all visits by ARHS region residents annually.

Table 79. Percent ED Admissions by Payer Group, Currituck County Residents Albemarle Hospital and The Outer Banks Hospital (FY2010-FY2012)

Payer Group	Percent of ED Admissions		
	2010	2011	2012
CHAMPUS, VA or other Military	0.4	0.4	0.3
Commercial/Managed Care/Other	2.5	2.0	2.0
Medicaid	2.3	2.4	2.6
Medicare	1.8	1.7	1.6
Self-pay	3.1	3.2	3.0
Workman's Compensation	<0.1	0.1	0.1
Total Currituck County Patients	10.1	9.8	9.6
Total No. ED Visits by ARHS Region Residents	42,113	48,613	54,119

Source: Albemarle Health and The Outer Banks Hospital

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

Currituck County Emergency Medical Services

Currituck County Fire-EMS (CCFEMS) provides pre-hospital Advanced Life Support emergency medical care and transportation to county citizens and visitors. The department is staffed by Basic, Intermediate, and Paramedic Emergency Medical Technicians and certified firefighters. The Currituck County Communications office has shared data summarizing the nature of medically-oriented EMS calls for 2009 through 2012 (Table 80).

- The specifically named categories with the largest average numbers of annual calls were, in descending order: accident (409), sick person (403), breathing problems (351), falls (318) and non-traumatic chest pain (262).

Table 80. Medical Service Calls by Currituck County EMS (2009-2012)

Nature of Call	Number of Calls			
	2009	2010	2011	2012
ABDOMINAL PAIN OR PROBLEMS	94	115	99	124
ACCIDENT	323	414	456	444
ALLERGIES STINGS OR BITES	58	72	68	62
ANIMAL BITE OR ATTACK	10	10	15	10
ASSISTANCE FOR AGENCY OR PUBLIC	88	101	118	103
BACK PAIN	64	33	56	40
BOATING ACCIDENT	0	0	1	1
BREATHING PROBLEMS	348	392	323	341
BURNS, SCALDS OR EXPLOSION	10	17	5	8
CARBON MONOXIDE	3	14	2	9
CARDIAC ARREST OR DEATH	20	32	26	25
CHEST PAIN NON TRAUMATIC	223	270	248	305
CHOKING	11	22	16	12
DIABETIC PROBLEMS	106	92	75	94
DROWNING (NEAR) DIVING SCUBA	6	3	1	5
ELECTROCUTION OR LIGHTNING	2	2	1	1
EMS CALL	52	28	52	55
ENTRAPMENT INACCESSIBLE	8	20	12	10
EXPLOSION	3	0	2	0
EXPLOSIVE ORDINANCE DEVICE	1	3	6	2
EYE PROBLEMS OR INJURIES	5	11	7	11
FALLS	297	277	331	367
GAS LEAK	41	30	21	24
HAZ MAT INCIDENT	3	5	0	2
HAZARDOUS CONDITION	17	14	24	17
HEADACHE	20	21	17	29
HEART PROBLEMS OR AICD CALLS	77	66	64	64
HEAT OR COLD EXPOSURE	12	15	16	18
HEMORRHAGE OR LACERATIONS	109	146	106	95
INVESTIGATE REPORT OF DEATH	5	5	7	3
MEDICAL ALERT	19	30	41	37
OCEAN RESCUE CALL	43	45	41	24
OVERDOSE OR POISONING	50	43	65	60
PREGNANCY/CHILDBIRTH/MISCARRIAGE	7	14	9	10
PSYCHIATRIC ABNORMAL BEHAVIOR	24	33	36	45
SEIZURES OR CONVULSIONS	97	88	76	103
SHOOTING GUNSHOT WOUND	5	1	4	3
SICK PERSON	369	376	422	444
STABBING PENETRATING TRAUMA	4	8	7	1
STROKE OR CVA	61	79	106	83
SUICIDE OR ATTEMPT	39	30	42	43
TRAUMATIC INJURIES	124	132	141	158
UNCONSCIOUS OR FAINTING	161	195	157	157
UNKNOWN OR MANDOWN	22	30	21	24
VEHICLE FIRE	17	26	12	32
WATER RESCUE	3	5	4	6
TOTAL	3,061	3,365	3,359	3,511

Source: Mary Beth Newns, Director, Currituck County Government. Personal communication to Dana Hamill, Public Health Educator, Albemarle Regional Health Services, Perquimans County Health Department, December 7, 2012.

Public Health Department: Albemarle Regional Health Services

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

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

Albemarle Regional Health Services also administers the following programs: Environmental Health, Regional Landfill, Solid Waste Authority and Recycling, LifeQuest Worksite Wellness, and the Inter-County Public Transportation Authority. The more than 29 ARHS operational sites are completely networked by technology to increase the efficiency and effectiveness of service delivery across the agency (39).

Currituck County Health Department

Services offered at the Currituck County Health Department, physically located in Currituck, NC, include: clinical services, WIC, health education and promotion, environmental health, preparedness and response, Albemarle Home Care, Albemarle Hospice, Inter-County Public Transportation Authority, Albemarle Solid Waste Management Authority, and Children's Developmental Services Agency.

Clinical Services

- **Adult Health.** Comprehensive physical assessments and clinical services are provided for all adults in an effort to detect and prevent chronic diseases, which may cause disability or premature mortality. The Breast and Cervical Cancer Control Program (BCCCP) provides access to screening services for financially and medically eligible women.
- **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.
- **Immunization.** 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, and coalition building and coordination.

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.

Albemarle Solid Waste Management Authority

Albemarle Regional Solid Waste Management Authority is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, and Tyrrell. This area currently has approximately 107,000 permanent residents and several hundred thousand visitors each year. Through a 26-year contract signed in 2009 with Republic Services of NC, LLC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region.

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

Children's Developmental Services Agency

The Children's Developmental Services Agency in Elizabeth City is one of 18 early intervention centers providing Infant Toddler services across NC. The agency's catchment area includes 10 counties in the northeastern corner of the state and houses personnel in the counties of Dare, Hertford, Washington and Pasquotank. The CDSA serves children ages 0 to 3 years (and their families) who are suspected of having developmental delays. In partnership with parents and community providers the agency provides evaluations, assurance of quality service provision, and case management services.

Health Department Utilization Data

ARHS has provided data on the utilization of agency services at the level of each county. Table 81 summarizes the demographic profile of clients who patronized the Currituck County Health Department in 2012 compared to comparable averages for all of Albemarle Regional Health Services.

- Children under the age of 18 composed 30% of all Currituck County Health Department patients; ARHS-wide the comparable percentage was 31%.
- Persons ages 45-64 composed 19% of the health department patients in Currituck County; ARHS-wide the comparable percentage was 19%.
- The largest proportion of Currituck County Health Department patients—87%--were white. African Americans and whites each composed 47% of patients ARHS-wide.
- Females composed 70% of Currituck County Health Department patients and 75% of ARHS patients.

Table 81. Demographic Profile of Patients, Currituck County Health Department and ARHS: Age, Race and Sex (2012)

Demographic Parameter	Unduplicated Counts			
	Currituck		Agency-Wide	
	Patients	Visits	Patients	Visits
Age				
0-17	453	570	4,531	7,546
18-24	256	671	2,539	6,093
25-34	232	449	2,317	5,427
35-44	136	258	1,437	2,797
45-54	151	222	1,476	2,636
55-64	129	188	1,265	1,898
65+	132	183	899	1,609
Total	1,489	2,541	14,464	28,006
Race				
American Indian/Alaskan Native	1	1	10	21
Asian	6	12	121	254
Black/African American	141	250	6,388	13,214
Native Hawaiian/Pacific Islander	1	3	14	31
Unknown	42	73	582	1,402
White	1,298	2,202	7,349	13,084
Total	1,489	2,541	14,464	28,006
Sex				
Female	1,041	1,965	10,077	21,094
Male	448	576	4,387	6,912
Total	1,489	2,541	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 82 summarizes the payer profile for services utilized by patients of the Currituck 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 Currituck County Health Department—43%--was the “patient pay only” category.
- Adult Health was the Currituck County Health Department program with the largest number (273) and percent (36%) of “patient pay only” clients.
- Medicaid only or some combination of Medicaid and another payer composed the second largest proportion of all payers, 26%.
- Immunizations was the program with the largest proportion of Medicaid payers (39%).

Table 82. Payer Profile, Currituck 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	450	729	6	0	31	273	8	41	54	413
Child Health	67	77	6	0	25	22	0	0	1	54
Family Planning	255	509	10	0	68	120	1	0	14	213
HealthCheck Child Health Physicals	77	103	5	0	49	19	0	0	1	74
Immunization	666	715	2	1	160	195	29	37	178	602
Maternal	56	251	8	2	37	5	0	0	0	52
Pregnancy Tests	91	99	4	0	22	63	0	0	0	89
STD	90	118	1	0	18	49	0	1	2	71
Tuberculosis	10	21	0	0	0	7	0	0	0	7
TOTAL	1,762	2,622	42	3	410	753	38	79	250	1,575

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

Federally-Qualified Health Centers

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

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

The US Health Resources and Services Administration (HRSA) lists no FQHC in Currituck County as of May 31, 2013, but did list Albemarle Regional Health Services in Elizabeth City and several others in Virginia (41).

School Health

The Currituck County Schools local education authority (LEA) employs the nurses in the district’s schools (42).

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 Currituck County Schools for the two-year period cited was 629:1, 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
Currituck County	608	651
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 Currituck County.

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

Facility Type/Name	Location	# Beds SNF (ACH)[1]	Star Rating (If applicable)
Adult Care Homes/Homes for the Aged			
Currituck House	Moyock	90	3
Family Care Homes			
None			
Nursing Homes/Homes for the Aged			
Sentara Nursing Center - Currituck	Barco	100 (0)	n/a

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

Nursing Homes

Nursing homes are facilities that provide nursing or convalescent care for three or more persons unrelated to the licensee. A nursing home provides long term care of chronic conditions or short term convalescent or rehabilitative care of remedial ailments, for which medical and nursing care are indicated. All nursing homes must be licensed in accordance with state law by the NC Division of Health Service Regulation Licensure Section (43).

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 was one nursing home listed for Currituck County: Sentara Nursing Center in Barco (100 beds).

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

Location	2005	2006	2007	2008	2009	2010	2011
Currituck County	100	100	100	100	100	100	100
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 (44).

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 (45).

- At the time this report was prepared there was one state-licensed adult care home in Currituck County: Currituck House (90 beds, three stars) located in Moyock.
- There were no state-licensed family care homes in Currituck County.

Alternatives to Institutional Care

An alternative to institutional care preferred by many disabled and senior citizens is to remain at home and use community in-home health and/or home aide services. Table 86 below lists the home care, home health, and hospice providers in Currituck 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 Currituck County (As of March, 2013)

Provider Name	Location
Albemarle Home Care	Currituck
Outer Banks Home Care	Powell's Point

Source - NC Department of Health and Human Services, Division of Health Services Regulation (DHSR), Licensed Facilities, Home Care All Facilities (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 16% of the agency's home health clients lived in Currituck 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 (46).

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 (47). 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 (48).

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 (49).

At the time this report was prepared, the LME for Currituck 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 Currituck County residents.

It should be noted, however, that the list of ECBH providers is a master list of those offering services throughout the LME's 19-county service area; at the present time no network provider was physically located in Currituck County.

Table 88. East Carolina Behavioral Health Network Providers Serving Currituck County (As of September, 2012)

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

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

There is a list of NC-licensed mental health *facilities* (not service providers) physically located in Currituck County, shown in Table 89. These facilities offer a variety of services.

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

Operator/Name of Facility	Location	Category	Capacity
Currituck Home	Grandy	Supervised living, developmentally disabled adult	6
Currituck Learning Center	Barco	Day Treatment	n/a
Lighthouse Club - Currituck	Point Harbor	Day Activity	n/a
Two Dreams - Outer Banks, LLC	Corolla	Day treatment for substance abuse	n/a

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 Currituck 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 Currituck 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 Currituck County, but Internet searches identified an urgent care center in Kitty Hawk, NC. Currituck County residents with urgent (and evening, weekend and holiday) health issues are most likely to report to Vidant Chowan Hospital, Albemarle Hospital, or another area hospital.

Other Currituck County Healthcare Practitioners/Practices

Table 92 presents a partial list of the healthcare practitioners in Currituck County licensed by the NC Medical Board as of June 3, 2013.

Table 92. Physicians and Physician Assistants in Currituck County (As of June 3, 2013)

Provider/Practice Name	Location	Specialty
Aros, Carolyn, PA-C	Currituck	General Practice
Caswell, Christopher Clayton, MD	Point Harbor	Anesthesiology
Dahm, Norman Richard, MD	Point Harbor	Obstetrics and Gynecologic Surgery
Martz, Michael Roy, MD	Barco	Family Practice
Old, Jr., Forrest Paul, MD	Moyock	Internal Medicine
Owens, James Lee, MD	Jarvisburg	Family Medicine
Skoski, Myron, PA-C	Moyock	Family Medicine
Terryberry, Daniel Scott, MD	Moyock	Occupational Medicine
Weathers, Paul Michael, PA-C	Moyock	Family Medicine
Williams, Allison Ruth, PA-C	Moyock	Internal Medicine
Ziglar, Susan Kimberly, MD	Moyock	Family Medicine

Source: North Carolina Medical Board, Licensee Information, Licensee Search, Currituck County, Physicians and Physician Assistants. http://wwwapps.ncmedboard.org/Clients/NCBOM/Public/LicenseeInformationSearch.aspx.

Recreational Facilities

Table 93 lists some of the recreational facilities and opportunities in Currituck County that are accessible to the general public; the table also lists some of the many sites of cultural and/or historical significance in the county. Table 94 lists some of the private and/or membership-based recreational facilities 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 Currituck County

Category/Name	Location	Facilities/Programs
Recreational Facilities and Opportunites		
Carova Beach Park	Corolla	Pavillion, shelters, boardwalk, volleyball pit, horseshoe pit
Currituck Community Center	Barco	YMCA, Senior Center, athletic fields, administrative offices, walking trails
Currituck Heritage Park	Corolla	Currituck Beach lighthouse, Keeper's House, tours, Wildlife Education, pedestrian footbridge, boat ramp, picnic facilities, gazebo
Knotts Island Ruritan Park	Knotts Island	Pavillion, playground, Senior Center, skatepark
Maple Park	Maple	Pavillion, shelters, athletic fields (baseball, softball, volleyball, horseshoes, badminton), fitness trail, skatepark, fishing, walking trails, playground
Poyner's Road Park	Poyner's Road	Picnic grounds, fishing, boat ramp
Special Olympics	Various access points	Bowling and basketball, ages 8 and up
Sound Park	Point Harbor	Pavillion, boat ramps, boardwalk, soundfront overlook, playgrounds, walking trails, athletic facilities (baseball, softball, volleyball, tennis) playing fields, skatepark, waterslide boardwalk
Veteran's Memorial Park	Coinjock	Pavillion, horseshoe pit, waterfront boardwalk with fishing, Veteran's Memorial monument and flags,
Walnut Island Park	Grandy	Pavillion, playground
Walking Communities	Various access points	21 community walking trail maps, available through the Parks and Recreation Department website
Historical Sites		
Parker House	Corolla	Restored house in historic Corolla Village
Corolla Chapel	Corolla	Restored interdenominational historic church and wedding facility
Whalehead Club at Currituck Heritage Park	Corolla	Restored 1920s residence, boathouse and footbridge, bike paths, picnic facilities, boatramp, self-guided walking tour
Currituck Beach Lighthouse	Corolla	Functioning lighthouse
Currituck County Historic Courthouse and Jail	Currituck	Historic site and in-use courthouse, one of the four oldest jails in NC

Sources:
Currituck County, NC, Departments, Parks and Recreation; http://www.co.currituck.nc.us/County-Parks.cfm
Visit Currituck, Where to Play, Historical Activities; http://www.visitcurrituck.com/activities-currituck-outer-banks-nc.aspx

Table 94. Private/Membership Recreational Facilities in Currituck County

Category/Name	Location	Facilities/Programs
West Side Athletic Club	Powells Point	golf community, tennis, fitness, swimming, personal training, summer camps

Source: Visit Currituck, Where to Play, Fitness; http://www.visitcurrituck.com/outer-banks-fitness-currituck-obx.aspx

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 Currituck 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 Currituck 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)

Currituck 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 Currituck 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 Currituck 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 95 shows where NC stood in the 2012 rankings relative to the "best" and "worst" states, where first-ranked is best.

Table 95. 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 96 presents the 2013 county rankings for Currituck County, the ARHS regional average and Pamlico County in terms of health outcomes and health factors; Table 97 presents additional detail for these jurisdictions as well as the average for NC and national benchmarks.

- Currituck County ranks 29th overall in NC.
- The best Currituck County rankings are in the health factors of social and economic factors (5th) and physical environment (13th), and the health outcome factor of mortality (25th).

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 96. 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	
Currituck County	25	34	38	54	5	13	29
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 97. County Health Rankings Details (2013)

Health Factor		Currituck County	*ARHS Regional Average*	Pamlico County	NC County Average	National Benchmark[1]
Mortality						
	Premature deaths	7,275	8,109	9,428	7,480	5,317
Morbidity						
	Poor or fair health	N/A	21%	17%	18%	10%
	Poor physical health days	4.1	4.1	2.2	3.6	2.6
	Poor mental health days	3.5	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	33%	33%	28%	29%	25%
	Physical inactivity	24%	28%	27%	25%	21%
	Excessive drinking	N/A	11%	5%	13%	7%
	Motor vehicle crash death rate	24	23	32	17	10
	Sexually transmitted infections	166	407	274	441	92
	Teen birth rate	33	44	55	46	21
Clinical Care						
	Uninsured	18%	0	20%	19%	11%
	Primary Care physicians	5913:1		2188:1	1480:1	1067:1
	Dentists	5947:1		3458:1	2171:1	1516:1
	Preventable hospital stays	68	68	46	63	47
	Diabetic screening	86%	86%	90%	88%	90%
	Mammography screening	69%	72%	78%	69%	73%
Social & Economic Factors						
	High school graduation	87%	82%	88%	80%	N/A
	Some college	56%	53%	52%	62%	70%
	Unemployment	7.0%	9.8%	10.3%	10.5%	5.0%
	Children in poverty	18%	27%	33%	25%	14%
	Inadequate social support	N/A	15%	8%	21%	14%
	Children in single-parent households	27%	36%	30%	35%	20%
	Violent crime rate	192	210	196	411	66
Physical Environment						
	Daily fine particulate matter	12.2	12	12.4	12.9	8.8
	Drinking water safety	0%	0%	0%	3%	0%
	Access to recreational facilities	4	5	8	11	16
	Limited access to healthy foods	3%	4%	2%	7%	1%
	Fast food restaurants	45%	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 98 presents total annual pregnancy, fertility and abortion rates for women age 15-44 for the period from 2007-2011.

- The *total pregnancy rate* in Currituck County was the lowest among the comparators in every year cited except 2007, when it was the second-lowest. The total pregnancy rate in Currituck County decreased by 8% overall between 2007 and 2011.
- The *total fertility rate* in Currituck County was the lowest among comparators in 2008-2010 and second-lowest in 2007 and 2011. The total fertility rate in Currituck County decreased by 7% overall between 2007 and 2011.
- The *total abortion rate* in Currituck was variable relative to its comparators over the period cited. The total abortion rate in Currituck County decreased by 12% overall between 2007 and 2011.

Table 98. 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
Currituck County	71.9	57.7	13.9	57.3	45.2	11.7	62.6	49.2	13.4	69.0	56.3	12.7	66.1	53.8	12.3
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 99 presents pregnancy, fertility, and abortion rates stratified according to the new model.

- The pregnancy rate in Currituck County was highest among African American non-Hispanics in both 2010 and 2011. The fertility rate was highest among white non-Hispanics in 2010 and among other non-Hispanics in 2011, albeit with an unstable rate. The abortion rate in 2010 and 2011 was highest among African American non-Hispanics, although the rates for both years were unstable.

Table 99. 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
Currituck County Total	69.0	56.3	12.7	66.1	53.8	12.3
White, Non-Hispanic	70.5	57.8	12.7	64.6	52.9	11.8
African American, Non-Hispanic	75.6	50.4	**25.2**	86.6	59.1	**27.6**
Other, Non-Hispanic	**51.3**	**51.3**	**0.0**	**66.7**	**66.7**	**0.0**
Hispanic	**31.3**	**31.3**	**0.0**	68.8	62.5	**6.3**
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 100 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 Currituck County teens was lowest among comparators in 2007, 2008 and 2009, second-highest in 2010 and highest in 2011. The teen pregnancy rate in Currituck County *increased* 31% between 2007 and 2011. The teen pregnancy rate *decreased* over the same period in the other three jurisdictions.
- The *total fertility rate* among Currituck County teens was lowest among the comparators from 2007 through 2010, but highest in 2011. The total fertility rate among Currituck County teens increased 13% between 2007 and 2011.

- Most total abortion rates for teens in the counties were unstable. The total teen abortion rate in Currituck County in 2011 *was* stable and was the highest among the comparators.

Table 100. 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
Currituck County	49.1	39.3	**9.8**	31.6	21.4	**10.1**	40.7	30.5	**10.2**	50.2	37.0	13.2	64.3	44.6	19.7
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 101 presents racially/ethnically stratified pregnancy, fertility and abortion data for teens. Racially stratified rates among minority teens in Currituck County were mostly unstable.

Table 101. 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
Currituck County	Total	50.2	37.0	13.2	64.3	44.6	19.7
	White, Non-Hispanic	54.1	40.5	**13.5**	65.1	45.4	19.7
	African American, Non-Hispanic	**41.7**	**20.8**	**20.8**	**50.8**	**16.9**	**33.9**
	Other, Non-Hispanic	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	Hispanic	**0.0**	**0.0**	**0.0**	**96.8**	**96.8**	**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 102 presents trend data on the number of teen pregnancies in each jurisdiction from 2003-2011.

Table 102. 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
Currituck County	37	42	33	40	35	28	32	38	49
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 103 presents trend data on the number of adolescent pregnancies in each jurisdiction from 2003-2011.

Table 103. 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
Currituck County	0	2	2	0	1	1	0	1	1
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 104 presents data on high-parity and short interval births for the period 2007-2011.

- The percentages of high-parity births among women under age 30 and among women age 30 or older were lowest among the comparators in Currituck County.
- The percentage of short-interval births also was lowest in Currituck County.

Table 104. 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]
Currituck County	102	13.0	75	18.3	77	10.4
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 (50).

Table 105 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 Currituck County was second-highest among the comparators in every period cited.

Table 105. 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.	%
Currituck County	208	17.7	201	16.7	203	16.1	198	15.8	188	15.5
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 106 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 Currituck County who received early prenatal care was highest among the comparators in every period cited, and averaged approximately 90%.
- The percentage of pregnant black women in Currituck County who received early prenatal care was highest or second-highest in every period cited, and averaged approximately 81%.

Table 106. 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
Currituck County	90.5	77.6	100.0	90.0	77.8	100.0	89.6	84.2	100.0	88.8	84.7	100.0	88.7	80.3	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 (51).

Table 107 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 Currituck 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 107. 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
Currituck County	7.6	7.3	**14.1**	**10.5**	**2.6**	7.2	6.9	**13.8**	**8.7**	**2.9**
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 108 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 low birth-weight births.

Table 108. 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
Currituck County	2.0	**1.6**	**7.8**	**5.3**	**2.6**	**1.4**	**1.0**	**6.2**	**4.3**	**2.9**
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 109 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 16% in Currituck County, 13% in the ARHS region, 5% in Pamlico County, and 13% statewide.

Table 109. 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
Currituck County	29.4	30.4	32.0	31.7	33.2	34.4	34.2
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 Currituck County infants upon birth. Table 110 summarizes some of that data for 2012. There were no births to Currituck County resident mothers reported for Vidant Bertie, Vidant Chowan, or Vidant Roanoke-Chowan Hospitals.

- Of 91 hospitalizations associated with infants born to Currituck County resident mothers in 2012, 64 (70%) involved “normal” infants. An additional one birth (1%) involved infants that presented with “major” problems, and 26 (29%) involved infants that presented with “significant” problems.

Table 110. Discharges of Newborn Infants, Currituck County Resident Mothers, Albemarle Hospital and The Outer Banks Hospital
(2012)

DRG Code	Diagnosis	Number of Discharges, by Hospital	
		Albemarle Hospital	The Outer Banks Hospital
795	Normal newborn	39	25
793	Full-term neonate with major problems	0	1
794	Neonate with other significant problems	14	12

Source: Albemarle Health and The Outer Banks Hospital.

Infant Mortality

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

Table 111 presents infant mortality data for Currituck County, the ARHS region, Pamlico County and the state of NC.

- Due to infant deaths numbering fewer than 20 per aggregate period in Currituck 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 111. 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
Currituck County	**8**	**6.8**	**11**	**9.1**	**16**	**12.7**	**17**	**13.6**	**18**	**14.8**	**17**	**14.1**	**15**	**12.6**
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 112 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 112. 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
Currituck County	Total	**17**	**14.1**	**15**	**12.6**
	White, Non-Hispanic	**12**	**11.1**	**11**	**10.3**
	African American, Non-Hispanic	**3**	**46.9**	**3**	**46.2**
	Other, Non-Hispanic	**1**	**52.6**	**0**	**0.0**
	Hispanic	**1**	**25.6**	**1**	**28.6**
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 113 presents gender- and race-stratified life expectancy at birth data for all jurisdictions.

- Overall life expectancy at birth in Currituck County increased by 4.2 years, from 73.1 to 77.3 (6.0%), between 1990-1992 and 2008-2010.
- In both periods cited average life expectancies at birth for females in Currituck County were higher than life expectancies for males, but the gap narrowed from 6.8 years to 5.3 years because life expectancy increased by 4.8 years for males and only 3.3 years for females.
- In Currituck County in 1990-1992 the life expectancy for whites exceeded the life expectancy for African-Americans by 11.5 years. By 2008-2010 the life expectancy for African Americans had increased by 11.0 years and the life expectancy gap had decreased to 3.6 years.

Table 113. 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
Currituck County	73.1	69.9	76.7	74.4	62.9	77.3	74.7	80.0	77.5	73.9
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 114 compares mortality rates for the 15 leading causes of death in Currituck 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 Currituck 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 Currituck County and NC mortality rates are discussed below.

Relative to the **state of NC**:

- The overall mortality rate in Currituck County (873.2) was 8% *higher* than the overall state mortality rate (808.4).
- The first two leading causes of death were *the same*: total cancer first, and diseases of the heart second. The total cancer mortality rate in Currituck County (199.6) was 11% *higher* than the state rate (179.7), and the heart disease mortality rate in Currituck County (195.0) was 9% *higher* than the state rate (179.3).
- Pneumonia and influenza ranked *much higher* among leading causes of death in Currituck County (3rd vs. 9th). The mortality rate for pneumonia/influenza in Currituck County was 80.9, *4½ times* the comparable state rate of 17.9.
- Chronic lower respiratory disease ranked *lower* among leading causes of death in Currituck County (4th vs. 3rd). The mortality rate for chronic lower respiratory disease in Currituck County was 60.9, 31% *higher* than the comparable state rate of 46.6.
- All other unintentional injuries ranked *the same* among leading causes of death in Currituck County (5th). The mortality rate for all other injuries in Currituck County was 29.4, 0.7% *higher* than the comparable state rate of 29.2.
- Unintentional motor vehicle injuries ranked *higher* among leading causes of death in Currituck County (6th vs. 10th). The mortality rate for unintentional motor vehicle injuries in Currituck County was 27.8, 79% *higher* than the comparable state rate of 15.5.
- Cerebrovascular disease ranked *lower* among leading causes of death in Currituck County (7th vs. 4th). The mortality rate for cerebrovascular disease in Currituck County was 26.5, 42% *lower* than the comparable state rate of 46.0.
- Alzheimer's disease ranked lower among leading causes of death in Currituck County (8th vs. 6th). The mortality rate for Alzheimer's disease in Currituck County was 24.4, 16% *lower* than the comparable state rate of 29.0.
- Suicide ranked higher among leading causes of death in Currituck County (9th vs. 12th). The suicide mortality rate in Currituck County was 17.4, 44% higher than the comparable state rate of 12.1.

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

Table 114. Overall Age-Adjusted Mortality Rates for the 15 Leading Causes of Death, Currituck County and Comparators (Single Five-Year Aggregate Period, 2007-2011 or as Noted)[1]

Cause of Death	Currituck 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
Total Cancer	242	199.6	1	*228*	*195.3*	*1*	175	174.4	1	88,518	179.7	1	168.6	2
Diseases of the Heart	222	195.0	2	*220*	*188.9*	*2*	159	163.3	2	86,099	179.3	2	173.7	1
Pneumonia and Influenza	80	80.9	3	*30*	*14.0*	*11*	14	N/A	N/A	8,455	17.9	9	15.7	8
Chronic Lower Respiratory Disease	71	60.9	4	*51*	*46.1*	*3*	43	41.4	4	22,274	46.6	3	42.7	3
All Other Unintentional Injuries	34	29.4	5	*31*	*31.2*	*6*	28	32.9	5	13,781	29.2	5	38.0	4
Unintentional Motor Vehicle Injuries	32	27.8	6	*20*	*27.9*	*7*	21	31.4	6	7,336	15.5	10	10.9	11
Cerebrovascular Disease	30	26.5	7	*51*	*43.7*	*4*	53	54.7	3	21,774	46.0	4	37.9	5
Alzheimer's Disease	23	24.4	8	*30*	*26.9*	*8*	27	29.0	7	13,347	29.0	6	24.6	6
Suicide	22	17.4	9	*10*	*17.4*	*10*	18	N/A	N/A	5,751	12.1	12	12.0	10
Chronic Liver Disease and Cirrhosis	17	N/A	N/A	*11*	*N/A*	*N/A*	12	N/A	N/A	4,723	9.3	13	9.7	13
Diabetes Mellitus	15	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	15	N/A	N/A	*19*	*19.8*	*9*	17	N/A	N/A	8,860	18.6	8	13.4	9
Septicemia	14	N/A	N/A	*14*	*9.7*	*12*	16	N/A	N/A	6,515	13.6	11	10.5	12
Homicide	4	N/A	N/A	*4*	*N/A*	*N/A*	3	N/A	N/A	2,949	6.3	14	3.6	14
Acquired Immune Deficiency Syndrome	2	N/A	N/A	*4*	*N/A*	*N/A*	1	N/A	N/A	1,687	3.5	15	2.4	15
Total Deaths All Causes (Some causes are not listed above)	995	873.2	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 Currituck County were *higher* for:

- Total cancer,
- Diseases of the heart,
- Pneumonia and influenza, and
- Chronic lower respiratory disease.

The overall mortality rate in Currituck County (873.2) was 4% *higher* than the average overall regional rate (840.1).

Compared to US mortality rates, mortality rates in Currituck County were *higher* for:

- Total cancer,
- Diseases of the heart,
- Pneumonia and influenza,
- Chronic lower respiratory disease,
- Unintentional motor vehicle injuries, and
- Suicide.

The overall mortality rate in Currituck County (873.2) was 18% *higher* than the overall US mortality rate (740.6).

Gender Disparities in Leading Causes of Death

In the past, NC CHAs have demonstrated some significant differences in mortality rates between men and women. Table 115 compares gender stratified rates for the 15 leading causes of death in Currituck County and its comparator jurisdictions. The usefulness of the table is hampered somewhat by numerous suppressed gender-stratified mortality rates.

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

- Chronic lower respiratory disease (by 107%),
- Diseases of the heart (by 88%),
- Total cancer (by 22%), and
- Pneumonia and influenza (by 18%).

While male, females or both gender-stratified mortality rates for Currituck 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:

- Unintentional motor vehicle injuries,
- Suicide,
- Chronic liver disease and cirrhosis,
- Diabetes, and
- Nephritis, nephrotic syndrome and nephritis.

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

- Cerebrovascular disease,
- Alzheimer's disease, and
- Septicemia

There was *non-significant* difference in the number of deaths (i.e. three or fewer) among males and females for:

- All other unintentional injuries,
- Homicide, and
- AIDS

In Currituck County, the overall mortality rate for males (1,039.1) was 42% higher than the overall mortality rate for females (733.7).

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

Cause of Death	Currituck County				Pamlico County Rate		Regional Average Rate		State of NC Rate	
	Males		Females							
	Number	Rate	Number	Rate	Males	Females	Males	Females	Males	Females
1. Cancer	121	223.5	121	182.5	221.9	132.1	245.5	161.1	227.4	147.5
2. Diseases of the Heart	133	265.7	89	141.4	198.9	131.3	256.2	136.6	229.4	141.6
3. Pneumonia and Influenza	35	89.1	45	75.2	N/A	N/A	56.7	47.9	20.9	16.1
4. Chronic Lower Respiratory Disease	46	86.3	25	41.6	38.3	40.3	73.4	35.4	54.9	41.7
5. All Other Unintentional Injuries	17	N/A	17	N/A	N/A	N/A	46.7	19.8	38.8	20.9
6. Unintentional Motor Vehicle Injuries	27	49.4	5	N/A	N/A	N/A	54.2	N/A	22.9	8.6
7. Cerebrovascular Diseases	8	N/A	22	35.5	46.9	59.8	64.2	40.5	46.8	44.5
8. Alzheimer's Disease	5	N/A	18	N/A	N/A	40.4	N/A	N/A	22.7	32.2
9. Suicide	19	N/A	3	N/A	N/A	N/A	N/A	N/A	19.6	5.3
10. Chronic Liver Disease and Cirrhosis	14	N/A	3	N/A	N/A	N/A	N/A	N/A	13.2	5.9
11. Diabetes Mellitus	10	N/A	5	N/A	N/A	N/A	61.1	36.0	26.0	18.8
12. Nephritis, Nephrotic Syndrome and Nephrosis	11	N/A	4	N/A	N/A	N/A	N/A	N/A	22.7	16.0
13. Septicemia	4	N/A	10	N/A	N/A	N/A	N/A	N/A	15.0	12.6
14. Homicide	1	N/A	3	N/A	N/A	N/A	N/A	N/A	9.8	2.9
15. Acquired Immune Deficiency Syndrome	2	N/A	0	N/A	N/A	N/A	N/A	N/A	4.8	2.3
Total Deaths All Causes (Some causes are not listed above)	533	1,039.1	462	733.7	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 Currituck County are available only for white and African American non-Hispanics, and for only two causes of death.

According to data in Table 116, in Currituck County the overall mortality rate for African American non-Hispanics (1,082.9) was 25% higher than the overall mortality rate for white non-

Hispanics (868.6). Racial differences in mortality will be described in detail as each cause of death is discussed separately in subsequent sections of this report.

Table 116. Race-Specific Age-Adjusted Death Rates for the 15 Leading Causes of Death (Single Five-Year Aggregate Period, 2007-2011)

Cause of Death	Currituck County									
	White, non-Hispanic		African-American, non-Hispanic		Other Races, non-Hispanic		Hispanic		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1. Cancer	216	197.8	24	271.0	1	N/A	1	N/A	242	199.6
2. Diseases of the Heart	200	194.4	22	256.3	0	N/A	0	N/A	222	195.0
3. Pneumonia and Influenza	68	78.0	12	N/A	0	N/A	0	N/A	80	80.9
4. Chronic Lower Respiratory Disease	67	63.7	2	N/A	2	N/A	0	N/A	71	60.9
5. All Other Unintentional Injuries	33	31.8	0	N/A	0	N/A	1	N/A	34	29.4
6. Unintentional Motor Vehicle Injuries	28	26.5	2	N/A	0	N/A	2	N/A	32	27.8
7. Cerebrovascular Diseases	25	25.0	5	N/A	0	N/A	0	N/A	30	26.5
8. Alzheimer's Disease	22	26.1	1	N/A	0	N/A	0	N/A	23	24.4
9. Suicide	21	18.7	0	N/A	0	N/A	1	N/A	22	17.4
10. Chronic Liver Disease and Cirrhosis	16	N/A	1	N/A	0	N/A	0	N/A	17	N/A
11. Diabetes Mellitus	12	N/A	3	N/A	0	N/A	0	N/A	15	N/A
12. Nephritis, Nephrotic Syndrome and Nephrosis	13	N/A	2	N/A	0	N/A	0	N/A	15	N/A
13. Septicemia	13	N/A	1	N/A	0	N/A	0	N/A	14	N/A
14. Homicide	4	N/A	0	N/A	0	N/A	0	N/A	4	N/A
15. Acquired Immune Deficiency Syndrome	2	N/A	0	N/A	0	N/A	0	N/A	2	N/A
Total Deaths All Causes (Some causes are not listed above)	892	868.6	92	1082.9	4	N/A	7	N/A	995	873.2

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-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 117 lists the three leading causes of death by age group for the five-year aggregate period from 2007-2011. (Note that for this purpose it is important to use *non-age adjusted* death rates.)

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

- Age Group 00-19: Conditions originating in the perinatal period
- Age Group 20-39: Motor vehicle injuries
- Age Group 40-64: Cancer – all sites
- Age Group 65-84: Cancer – all sites
- Age Group 85+: Diseases of the heart

Noteworthy differences in the age pattern of mortality among the three jurisdictions being compared are as follows:

- Cancer was a more prominent cause of death in the 20-39 age group in Currituck County than in the other jurisdictions.
- Pneumonia/influenza was a more prominent cause of death among the 85+ age group in Currituck County than in the other jurisdictions.

Table 117. 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		
		Currituck County	Pamlico County	State of NC
00-19	1	Conditions originating in the perinatal period	Conditions originating in the perinatal period	Conditions originating in the perinatal period
	2	Congenital anomalies (birth defects Motor vehicle injuries	*Suicide*	Congenital anomalies (birth defects)
	3	*Other unintentional injuries*	*Acute bronchitis & bronchiolitis* *Congenital anomalies (birth defects)* *Other unintentional injuries*	Motor vehicle injuries
20-39	1	Motor vehicle injuries	Motor vehicle injuries Suicide	Motor vehicle injuries
	2	Suicide	*Diseases of the heart* *Other unintenional injuries*	Other unintentional injuries
	3	Cancer-All Sites Other unintentional injuries	*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 disease	Chronic lower respiratory diseases	Chronic lower respiratory diseases
85+	1	Diseases of the heart	Diseases of the heart	Diseases of the heart
	2	Pneumonia & Influenza	Alzheimer's disease	Cancer-all sites
	3	Cancer-all sites	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 Currituck County, beginning with total cancer. It is important to emphasize once more that because of below-threshold numbers of deaths there will be no stable county rates for some causes of death, especially among racially stratified groups. Some unstable data will be presented in this document, but always accompanied by cautions regarding its use.

Cancer

Cancer is a term for diseases in which abnormal cells divide without control and can invade nearby tissues. Cancer cells also can spread to other parts of the body through the blood and lymph systems. If the disease remains unchecked, it can result in death (52).

Total Cancer

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

Malignant Neoplasm Hospitalizations

Table 118 presents the hospital discharge rate trend data for malignant neoplasms.

- The malignant neoplasm discharge rate in Currituck County was the lowest among the comparators in every year cited. Statewide, hospitalizations for this diagnosis decreased over time; there was no clear pattern in Currituck County.

Table 118. All Malignant Neoplasms Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	1.3	1.4	1.2	1.9	1.2	1.1	1.1
Regional Average	3.6	3.4	3.5	2.9	2.9	2.4	2.4
Pamlico County	6.2	5.3	5.5	6.0	5.2	3.6	3.8
State of NC	3.9	3.9	3.9	3.6	3.4	3.3	3.2

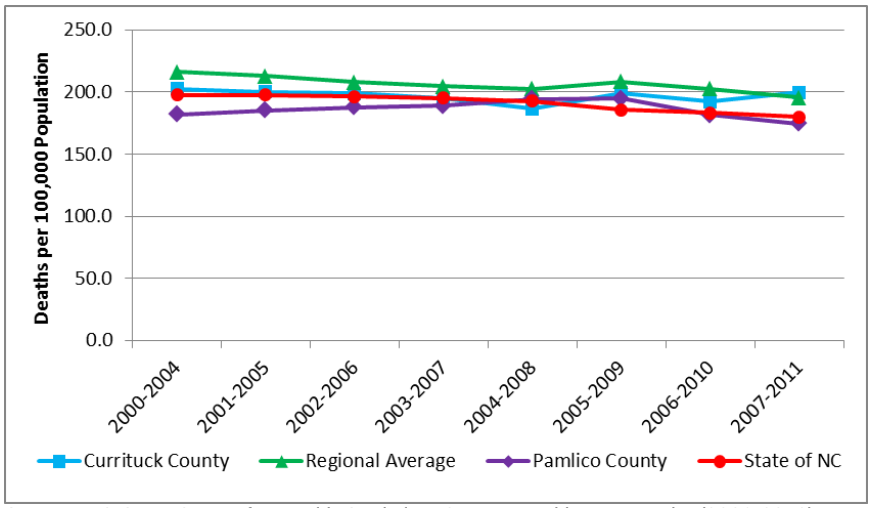
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2007-2013), Morbidity, Inpatient Hospital Utilization and Charges by Principal Diagnosis and County of Residence; http://www.schs.state.nc.us/SCHS/data/databook/.

Total Cancer Mortality Rate Trend

Figure 7 displays total cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The total cancer mortality rate in Currituck County did not change much during the period from 2000-2004 to 2007-2011 ranging between a high of 202.5 for 2000-2004 and a low of 186.4 for 2004-2008.
- Throughout the time period cited the total cancer mortality rate in Currituck County was lower than the average rate for the region.
- In every jurisdiction being compared the total cancer mortality rate in 2007-2011 was lower than the rate in 2000-2004.
- At the state level, the total cancer mortality rate fell gradually over the period cited, to a current low (179.7).

Figure 7. Overall Total Cancer Mortality Rate Trend
(Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Total Cancer Mortality

Table 119 presents total cancer mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of total cancer deaths among some minority populations in Currituck 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 Currituck County the total cancer mortality rate among African American non-Hispanics was 37% 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 119. Race/Ethnicity-Specific and Sex-Specific Total Cancer Mortality
(Single Five-Year Aggregate Period, 2007-2011)

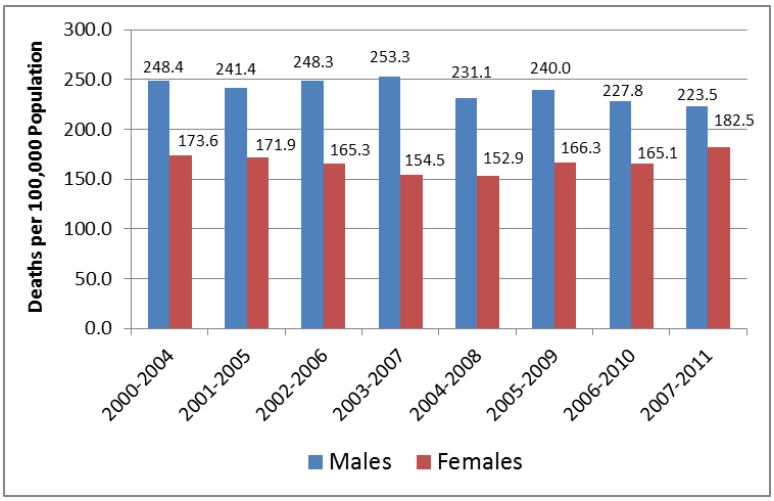
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	216	197.8	24	271.0	1	N/A	1	N/A	121	223.5	121	182.5	242	199.6
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 8 depicts gender-stratified total cancer mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in total cancer mortality noted in Currituck County for 2007-2011 is actually longstanding.
- The total cancer mortality rate for males decreased over the period cited while the comparable rate for females appeared to increase.

Figure 8. Sex-Specific Total Cancer Mortality Rate Trend, Currituck 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 120 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 120. 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
Currituck County	218.2	N/A	N/A	N/A	182.9	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/.

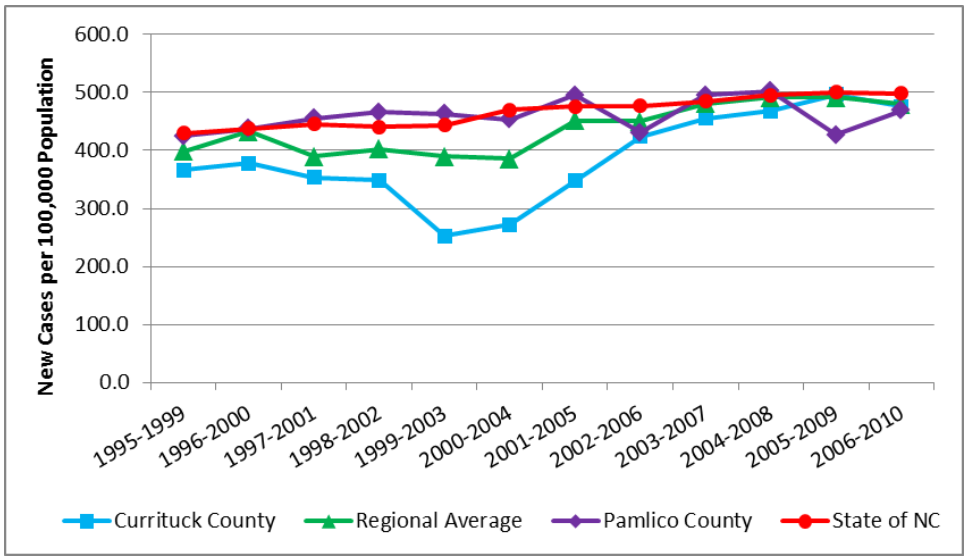
Total Cancer Incidence

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 9 plots the incidence rate trend for total cancer.

- The total cancer incidence rate in Currituck County was the lowest among the comparators in nine of the twelve periods cited. After decreasing between 1995-1999 and 1999-2003, the total cancer incidence rate in Currituck County has risen steadily, to a 2006-2010 rate of 475.7, 30% higher than the rate in 1995-1999.
- 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 9. Overall Total Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

To this point the discussions of cancer mortality and incidence have focused on figures for total cancer. In Currituck 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 121 presents age-adjusted *mortality* data for the five major site-specific cancers for the 2007-2011 period.

- In Currituck County, lung cancer and colon cancer were the only site-specific cancers with stable mortality rates. The numbers of other cancer deaths were below threshold so the mortality rates were suppressed.
- In NC as a whole, lung cancer presents the highest mortality rate, followed by prostate cancer, breast cancer, colon cancer, and pancreas cancer.

Table 121. 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
Currituck County	12	N/A	14	N/A	87	71.7	21	18.0	14	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 122 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 Currituck County prostate cancer was the site-specific cancer with the highest incidence rate, followed by breast cancer, lung cancer, and colon cancer.
- In Pamlico County, region-wide and statewide, breast cancer presented with the highest incidence rate, followed by prostate cancer, lung cancer, and colon cancer.

Table 122. 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
Currituck County	96	136.9	105	168.3	100	80.0	49	41.3
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

Table123 summarizes hospital discharge rate data for trachea, bronchus and lung neoplasms.

- The hospital discharge rate for lung cancer in Currituck County, while lowest among the comparators, was unstable in most years. The comparable state rate fell 33% over the same period.

Table 123. 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
Currituck County	0.5	**0.1**	**0.3**	**0.3**	**0.3**	**0.3**	**0.1**
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, three Currituck County residents were hospitalized somewhere in NC for diagnoses of malignant neoplasms of the trachea, bronchus and lung in 2011 (53).

Inpatient hospitalizations of Currituck County residents in 2012 for malignant neoplasms of the trachea, bronchus and lung (ICD-9 Code 162) at Albemarle Hospital or The Outer Banks Hospital are displayed in Table 124. In 2012 there were six admissions of county residents to the two hospitals in that code category.

Table 124. Inpatient Hospitalizations of Currituck County Residents for Malignant Neoplasms of the Trachea, Bronchus and Lung, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Number of Inpatient Hospitalizations	
	Albemarle Hospital	The Outer Banks Hospital
162	5	1

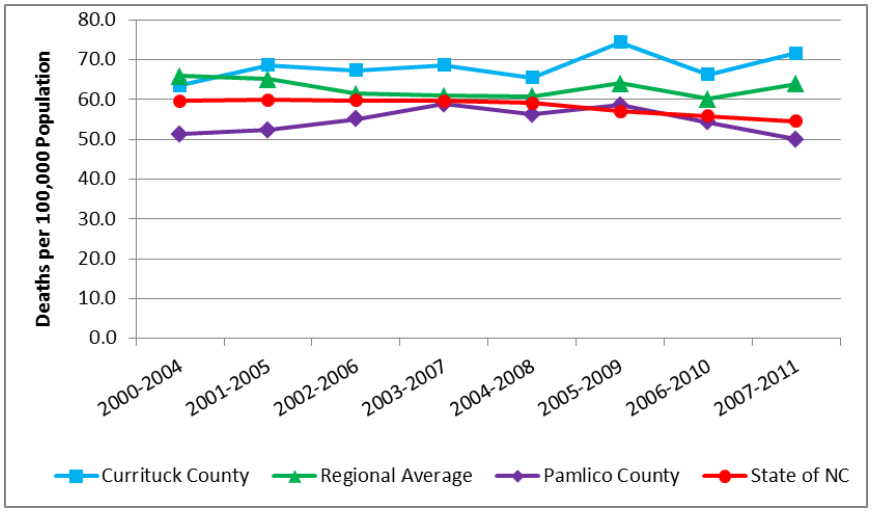
Source: Albemarle Health and The Outer Banks Hospital

Lung Cancer Mortality Rate Trend

Figure 10 displays lung cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The lung cancer mortality rate in Currituck County was the highest among the comparators in every period cited except the first, and rose from 63.5 in 2000-2004 to 71.7 in 2007-2011, a 13% increase.
- The lung cancer mortality rate in the region decreased 3% and the rate in NC decreased 9% over the entire period cited.

Figure 10. Overall Lung Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Lung Cancer Mortality

Table 125 presents lung cancer mortality data for the 2007-2011 aggregate period, stratified by race and sex.

- Due to below-threshold numbers of lung cancer deaths among some stratified populations in Currituck County and elsewhere, mortality rates for those groups were suppressed.
- Among white non-Hispanic persons, the lung cancer mortality rate was highest in Currituck and lowest in Pamlico County.
- 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 Currituck County, the ARHS region, and NC as a whole.

Table 125. Race/Ethnicity-Specific and Sex-Specific Lung Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

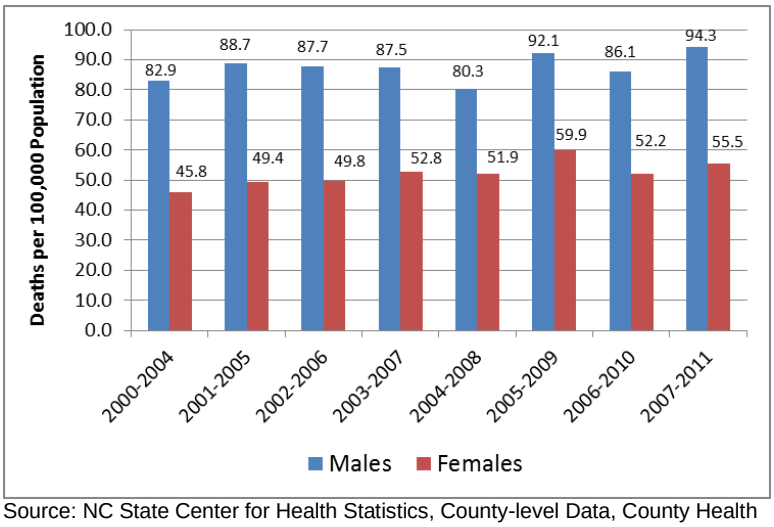
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	81	73.2	6	N/A	0	N/A	0	N/A	50	94.3	37	55.5	87	71.7
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 11 depicts gender-stratified lung cancer mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- The lung cancer mortality rates for Currituck County males and females both rose over the period cited. The rate for males rose 14% and the rate for females rose 21%.
- In 2000-2004, the lung cancer mortality rate for Currituck County males was 81% higher than the comparable rate for Currituck County females; by 2007-2011 the difference—still significant—had decreased to 70%.

Figure 11. Sex-Specific Lung Cancer Mortality Rate Trend, Currituck County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



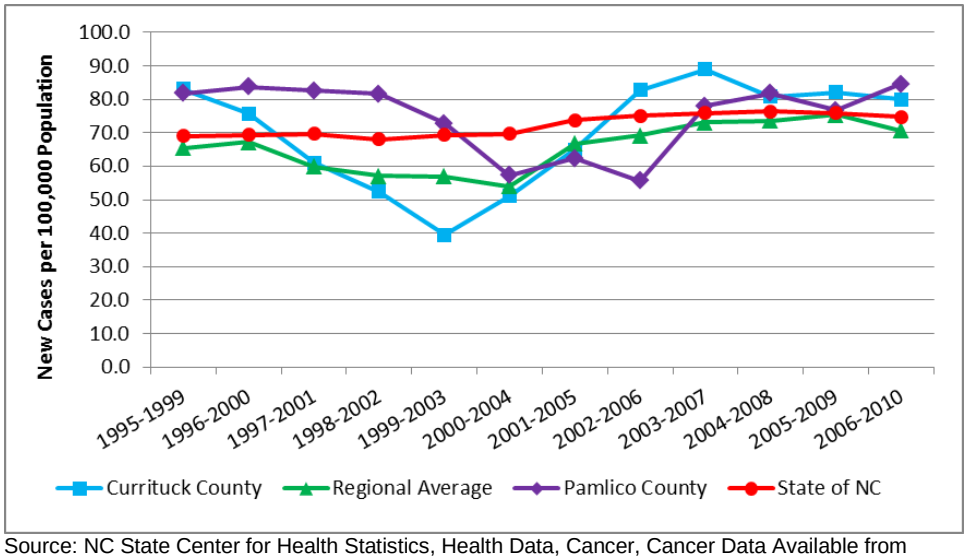
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Lung Cancer Incidence

Figure 12 plots the incidence rate trend for lung cancer.

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

Figure 12. Lung Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Prostate Cancer

Prostate Cancer Hospitalizations

Table126 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 126. 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
Currituck County	**0.0**	**0.3**	**0.0**	**0.2**	**0.1**	**0.2**	**0.3**
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 seven hospitalizations of Currituck County residents somewhere in NC for treatment of malignant neoplasms of the prostate (53).

Inpatient hospitalizations of Currituck County residents in 2012 for diagnosis and/or treatment of neoplasms of the prostate (ICD-9 Code 185) at Albemarle Hospital and The Outer Banks Hospital are displayed in Table 127. In 2012 there were four inpatient hospitalizations in that code category at those hospitals.

Table 127. Inpatient Hospitalizations of Currituck County Residents for Neoplasms of the Prostate, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Number of Inpatient Hospitalizations	
	Albemarle Hospital	The Outer Banks Hospital
185	4	0

Source: Albemarle Health and The Outer Banks Hospital

Table 128 presents data on outpatient/day surgery procedures of the prostate performed among Currituck County residents at Albemarle Hospital and The Outer Banks Hospital 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 four procedures in that procedure code category conducted on Currituck County residents at Albemarle Hospital in the period 2010-2012; none were tallied at The Outer Banks Hospital.

Table 128. Outpatient Operations on the Prostate and Seminal Vesicles, Currituck County Residents, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

Year	ICD-9 Procedure Code 60 Operations	
	Albemarle Hospital	The Outer Banks Hospital
2010	1	0
2011	1	0
2012	2	0

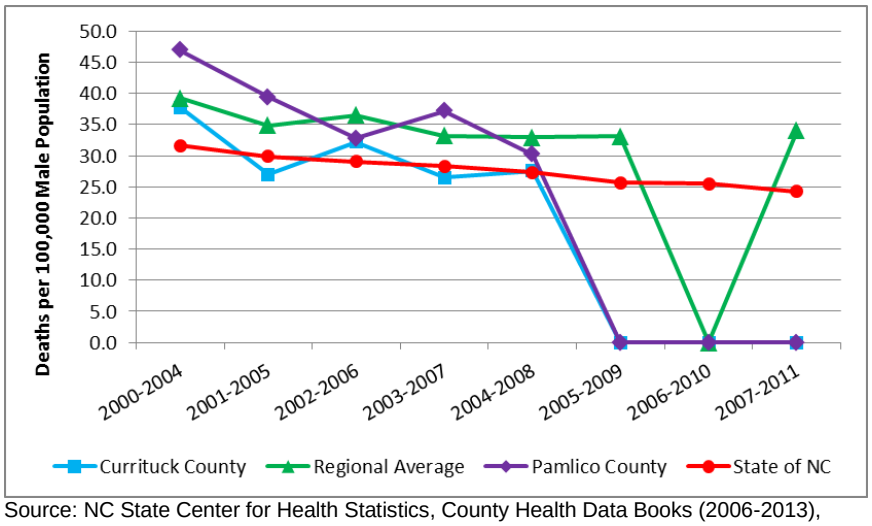
Source: Albemarle Health and The Outer Banks Hospital

Prostate Cancer Mortality Rate Trend

Figure 13 displays prostate cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The erratic nature of the plot of the Currituck County and Pamlico County prostate cancer mortality rates is a reflection of the instability in the rates. 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 13. Overall Prostate Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Racial Disparities in Prostate Cancer Mortality

Table 129 presents prostate cancer mortality rate data for the 2007-2011 aggregate period, stratified by race.

- Due to below-threshold numbers of prostate cancer deaths among racially-stratified populations in all jurisdictions except NC, mortality rates for those groups were suppressed.
- Statewide, the prostate cancer mortality rate for African American non-Hispanic males (55.6) was 2.8 *times* the comparable rate for white non-Hispanic males (19.6).
- Statewide the prostate cancer mortality rates for Other race non-Hispanic men and Hispanic men were 12% and 39% lower, respectively, than the comparable rate for white non-Hispanic men.

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

Location	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
Currituck County	12	N/A	2	N/A	0	N/A	0	N/A	14	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

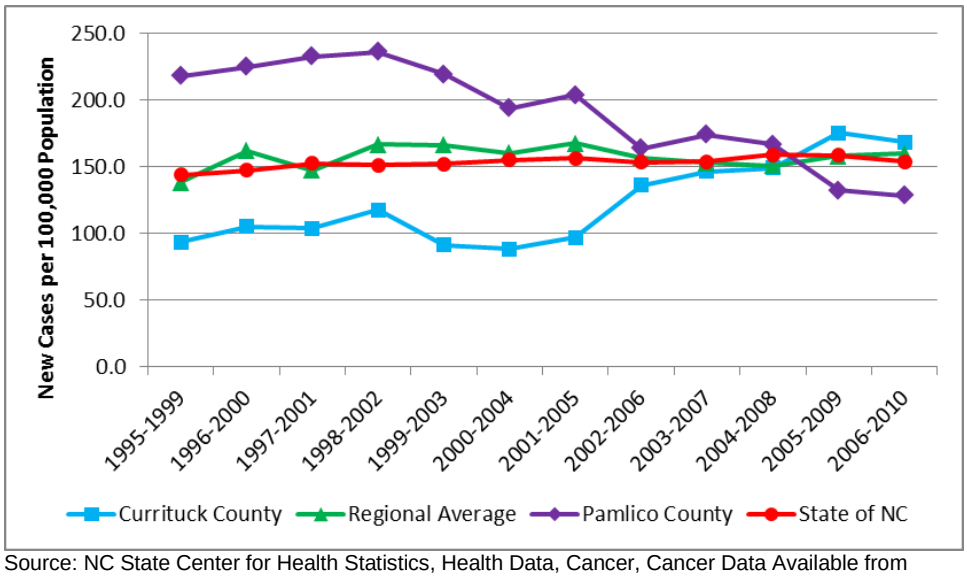
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County;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

Prostate Cancer Incidence

Figure 14 plots the incidence rate trend for prostate cancer.

- The prostate cancer incidence rate in Currituck County increased 80% over the period cited, from 93.5 in 1995-1999 to 168.3 in 2006-2010.
- The prostate cancer incidence rate for the region increased 16% over the period cited; the rate for the state rose 7% over the same period.
- In Pamlico County there was a significant 41% *decrease* in the prostate mortality rate, from 217.6 in 1995-1999 to 128.3 in 2006-2010.

Figure 14. Prostate Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

It is not known whether or not increased screening activity played a role in any of the increases in prostate cancer incidence.

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

Breast Cancer Hospitalizations

Table130 summarizes hospital discharge rate data for breast cancer.

- Hospital discharge rates for breast cancer in the two counties were unstable due to small numbers of hospitalizations; the rates for the region also were unstable since the regional average was based on county rates many of which were unstable.
- Statewide, the discharge rate for female breast cancer was steady at 0.2 until the most recent period, when it fell to 0.1.

Table 130. Malignant Female Breast Neoplasms Hospital Discharge Rate Trend (Single Years, 2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	**0.0**	**0.0**	**n/a**	**0.1**	**0.1**	**0.1**	**0.0**
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 was one hospitalization of a Currituck County resident somewhere in NC for treatment of a malignant neoplasm of the female breast (53).

Inpatient hospitalizations of Currituck County residents in 2012 for malignant neoplasms of the female breast (ICD-9 Code 174) at Albemarle Hospital and The Outer Banks Hospital are displayed in Table 131. In 2012 there was one such inpatient admission, at Albemarle Hospital.

Table 131. Inpatient Hospitalizations of Currituck County Residents for Malignant Neoplasms of the Female Breast, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Number of Inpatient Hospitalizations	
	Albemarle Hospital	The Outer Banks Hospital
174	1	0

Source: Albemarle Health and The Outer Banks Hospital

Table 132 presents data on outpatient/day surgery procedures of the breast performed among Currituck County residents at Albemarle Hospital or The Outer Banks Hospital 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 32 such procedures conducted among Currituck County residents at the two hospitals in the period cited.

Table 132. Outpatient Operations on the Breast, Currituck County Residents, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

Year	ICD-9 Procedure Code 85 Operations	
	Albemarle Hospital	The Outer Banks Hospital
2010	7	7
2011	10	0
2012	7	1

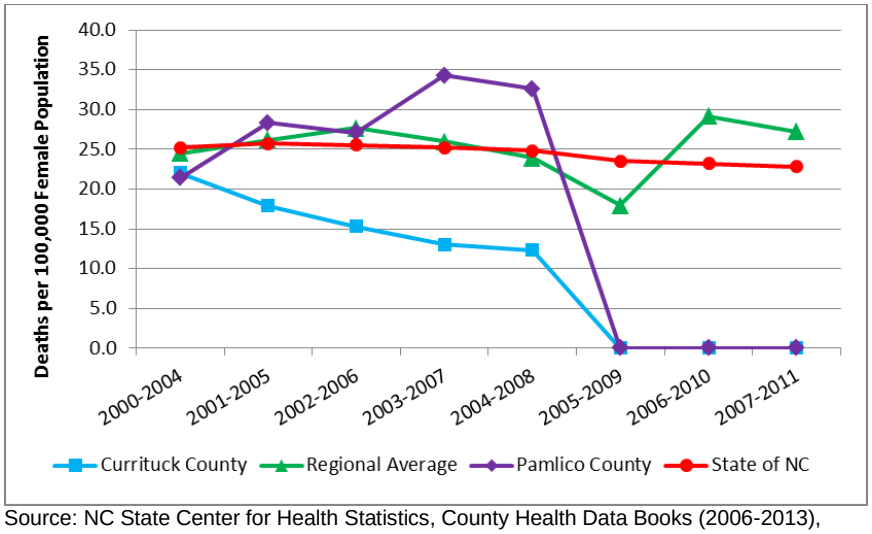
Source: Albemarle Health and The Outer Banks Hospital

Breast Cancer Mortality Rate Trend

Figure 15 displays female breast cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

- The last three breast cancer mortality rates in Currituck County and Pamlico County were suppressed due to below-threshold numbers of deaths. Prior to that suppression, the breast cancer mortality rate in Currituck County was falling and the comparable rate in Pamlico County was rising. All the measured county rates were unstable.
- 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 15. Overall Female Breast Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Racial Disparities in Breast Cancer Mortality

Table 133 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 racially stratified groups in Currituck County and elsewhere, NC SCHS suppressed the associated mortality rates, leaving no data to compare.
- Statewide, the breast cancer mortality rate for African American non-Hispanic women was 40% *higher* than the comparable rate for white non-Hispanic women, and the rates for Other race non-Hispanic women and Hispanic women were 40% and 60% lower, respectively, than the comparable rate for white non-Hispanic women.

Table 133. 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
Currituck 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

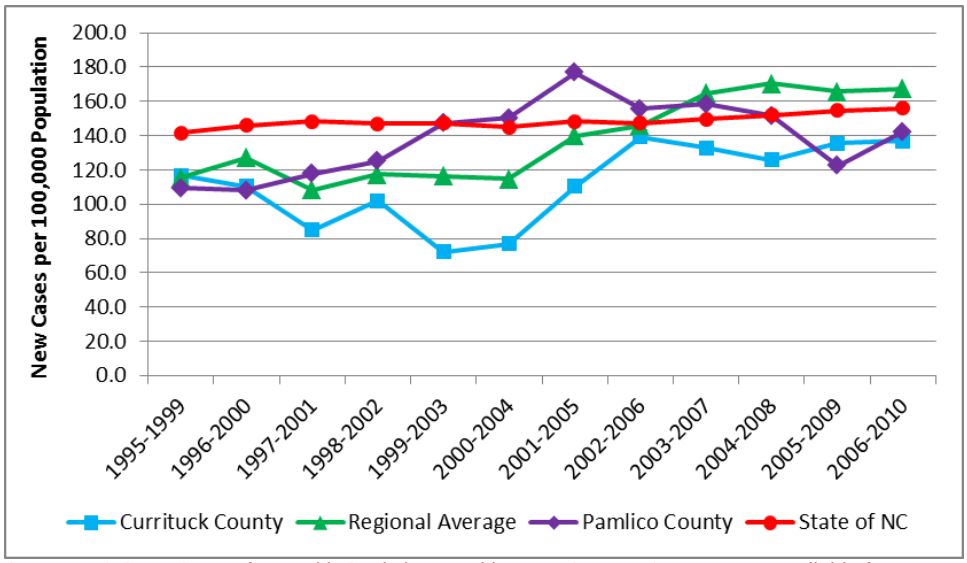
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County;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

Breast Cancer Incidence

Figure 16 plots the incidence rate trend for breast cancer.

- Breast cancer incidence rates increased at least slightly in every jurisdiction over the period cited. In Currituck County the overall increase was 17%, from 116.9 in 1995-1999 to 136.9 in 2006-2010. Comparable net increases were 30% in Pamlico County, 45% region-wide, and 10% statewide.

Figure 16. Breast Cancer Incidence Rate Trend (Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

It is not known whether or not increased screening activity played a role in any of the increases in breast cancer incidence, although breast cancer screening activities are common.

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

Table134 summarizes hospital discharge rate data for malignant neoplasms of the colon, rectum and anus. Local discharge rates were mostly unstable. There was a small decrease in the colon cancer discharge rate at the state level.

Table 134. 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
Currituck County	**0.2**	**0.1**	0.4	**0.4**	**0.1**	**0.0**	**0.2**
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 Currituck County residents were hospitalized somewhere in NC with diagnoses of malignant neoplasms of the colon, rectum and anus in 2011 (53).

Inpatient hospitalizations of Currituck County residents in 2012 for malignant neoplasms of the colon, rectum and anus (ICD-9 Codes 153 and 154) at Albemarle Hospital and The Outer Banks Hospital are displayed in Table 135. In 2012 there were five such admissions in those code categories among those two hospitals.

Table 135. Inpatient Hospitalizations of Currituck County Residents for Malignant Neoplasms of the Colon, Rectum and Anus, Albemarle Hospital and The Outer Banks Hospital (2012)

DRG Code	Number of Inpatient Hospitalizations	
	Albemarle Hospital	The Outer Banks Hospital
153	4	1
154	0	0

Source: Albemarle Health and The Outer Banks Hospital

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 136 tracks outpatient/day

surgery admissions in those categories for Currituck County residents at Albemarle Hospital and The Outer Banks Hospital. There were 314 total procedures in these categories among Currituck County residents in the period from 2010-2012.

Table 136. Outpatient Procedures on Large Intestine, Currituck County Residents, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

Year	ICD-9 Procedure Code 45.2 and 45.4 Procedures	
	Albemarle Hospital	The Outer Banks Hospital
2010	70	9
2011	100	12
2012	104	19

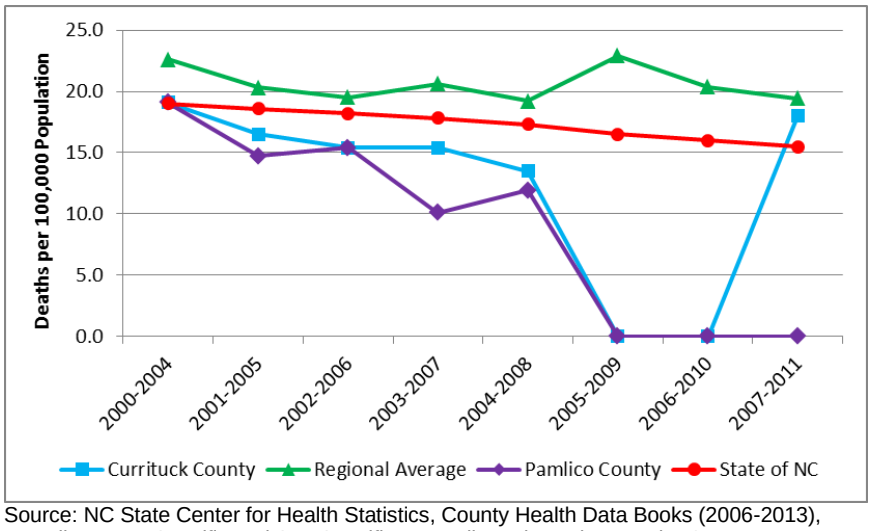
Source: Albemarle Health and The Outer Banks Hospital

Colon Cancer Mortality Rate Trend

Figure 17 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 17. Overall Colon Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Colon Cancer Mortality

Table 137 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 137. Race/Ethnicity-Specific and Sex-Specific Colon Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

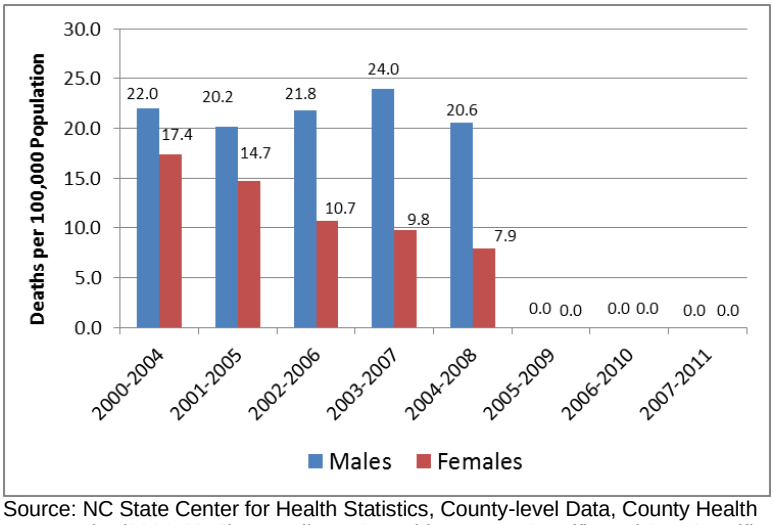
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	19	N/A	2	N/A	0	N/A	0	N/A	8	N/A	13	N/A	21	18.0
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 18 depicts gender-stratified colon cancer mortality rates in Currituck 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, the degree of difference between the measured rates for men and women appears to be significant, with the rates for men higher than the rates for women. Note that “zero” signifies only that a rate was suppressed.

Figure 18. Sex-Specific Colon Cancer Mortality Rate Trend, Currituck County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



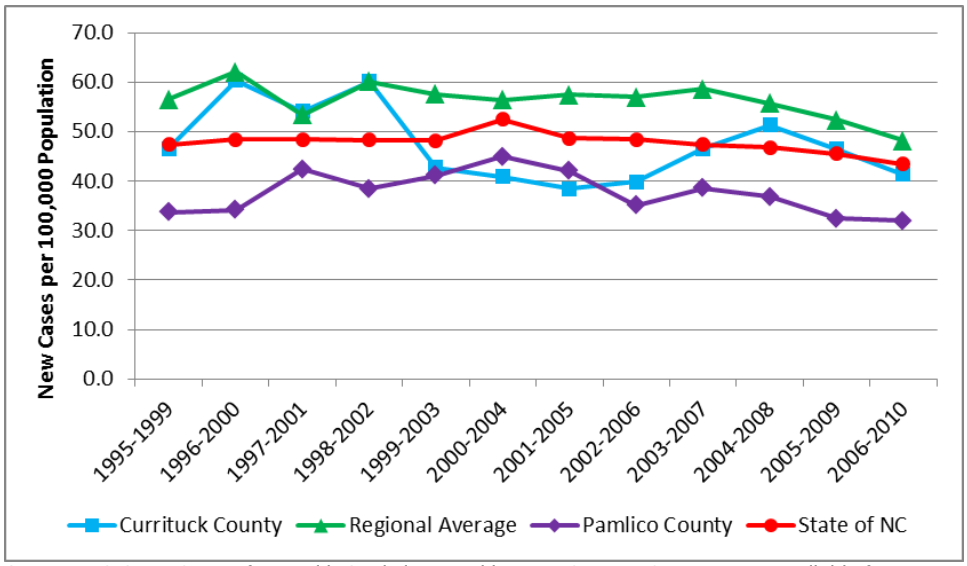
Source: NC State Center for Health Statistics, County-level Data, County Health Data Books (2006-2013), Mortality, NC Resident Race-Specific and Sex-Specific Age-Adjusted Death Rates, by County; http://www.schs.state.nc.us/SCHS/data/databook/.

Colon Cancer Incidence

Figure 19 plots the incidence rate trend for colon cancer.

- The colon cancer incidence rate in Currituck County fell slightly overall across the period cited, but only after a period of significant variability. The county's colon cancer incidence rate in 2006-2010 (41.3) was 11% lower than the rate in 1995-1999 (46.6).
- 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 19. Colon Cancer Incidence Rate Trend
(Five-Year Aggregate Periods, 1995-1999 through 2006-2010)



Source: NC State Center for Health Statistics, Health Data, Cancer, Cancer Data Available from SCHS, Annual Reports, NC Cancer Incidence Rates for All Counties by Specified Site (Years as noted); http://www.schs.state.us.nc/SCHS/CCR/reports.html.

Pancreas Cancer

Although the pancreas cancer mortality rate is the fifth highest among the site-specific cancers in NC, some of the typical data sets referenced in this report do *not* cover this cancer; among them are the Inpatient Hospital Utilization and Charges dataset and the Cancer Incidence dataset. Pancreas cancer mortality data *is* available.

Pancreas Cancer Mortality Rate Trend

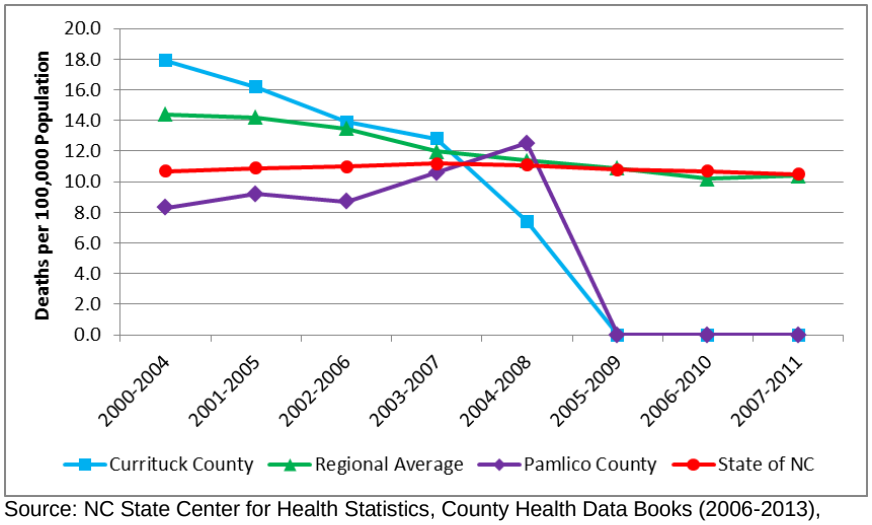
Figure 20 displays pancreas cancer mortality rate trends over time in the four jurisdictions being compared in this CHA.

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

trend in Pamlico and a falling mortality trend in Currituck. 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 20. Overall Pancreas Cancer Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Pancreas Cancer Mortality

Table 138 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 stratified populations in Currituck County and elsewhere, 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 138. Race/Ethnicity-Specific and Sex-Specific Pancreas Cancer Mortality (Single Five-Year Aggregate Period, 2007-2011)

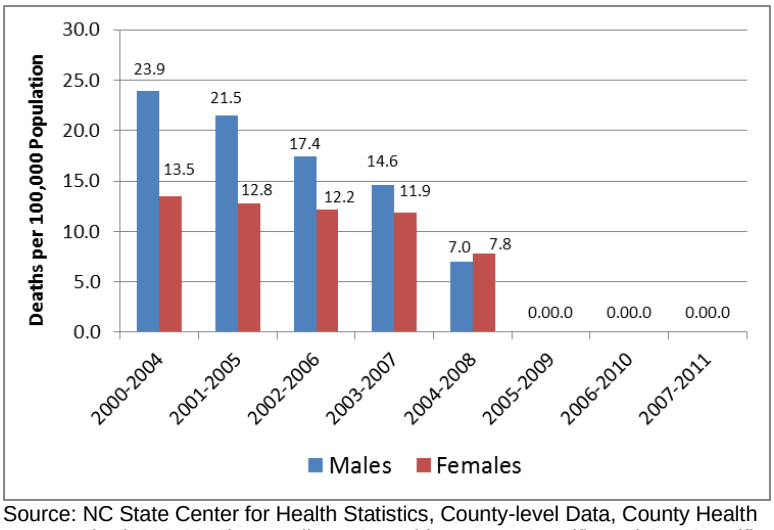
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	9	N/A	5	N/A	0	N/A	0	N/A	7	N/A	7	N/A	14	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 21 depicts gender-stratified pancreas cancer mortality rates in Currituck 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 the pancreas cancer mortality rates for males and females were decreasing and that in most periods the mortality rate for men was higher than the rate for women.

Figure 21. Sex-Specific Pancreas Cancer Mortality Rate Trend, Currituck County (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Pancreas Cancer Incidence

Historical pancreas cancer incidence rates are not available from NC SCHS at the present time.

Diseases of the Heart

Heart disease is an abnormal organic condition of the heart or of the heart and circulation. Heart disease is the number one killer in the US and a major cause of disability. The most common cause of heart disease, coronary artery disease, is a narrowing or blockage of the coronary arteries, the blood vessels that supply blood to the heart itself. Coronary artery disease is the major reason people have heart attacks, but other kinds of heart problems may originate in the valves in the heart, or the heart may not pump well and cause heart failure (54).

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

Heart Disease Hospitalizations

Table 139 presents hospital discharge rate trend data for several years. According to this data from NC SCHS, heart disease has been cause for a significant rate of hospitalization among Currituck County residents, but below the comparable state and regional averages and below the rate for Pamlico County.

Table 139. Heart Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	4.6	4.5	4.6	4.0	3.5	2.4	3.0
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 Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

Table 140 presents data on 2012 inpatient hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital 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 93 inpatient hospitalizations of Currituck County residents for these categories of heart disease at Albemarle Hospital and The Outer Banks Hospital in 2012.

Table 140. Inpatient Hospitalizations of Currituck County Residents for Diseases of the Heart, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
393-398	Chronic rheumatic heart disease	0	0
402	Hypertensive heart disease	1	0
410-414	Ischemic heart disease	38	0
415-416	Pulmonary heart disease	9	1
420-429	Other forms of heart disease	43	1
TOTAL		91	2

Source: Albemarle Health and The Outer Banks Hospital

Table 141 presents data on the number of emergency department (ED) admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with diseases of the heart. The list of diagnoses is the same as the list in the table above and does *not* include all types of heart disease. Currituck County residents made a total of 123 ED visits for these categories of heart disease over the three years cited.

Table 141. Emergency Department Admissions of Currituck County Residents for Diseases of the Heart, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
393-398	Chronic rheumatic heart disease	0	0	0
402	Hypertensive heart disease	0	0	0
410-414	Ischemic heart disease	15	11	7
415-416	Pulmonary heart disease	4	1	1
420-429	Other forms of heart disease	25	32	27
TOTAL		44	44	35

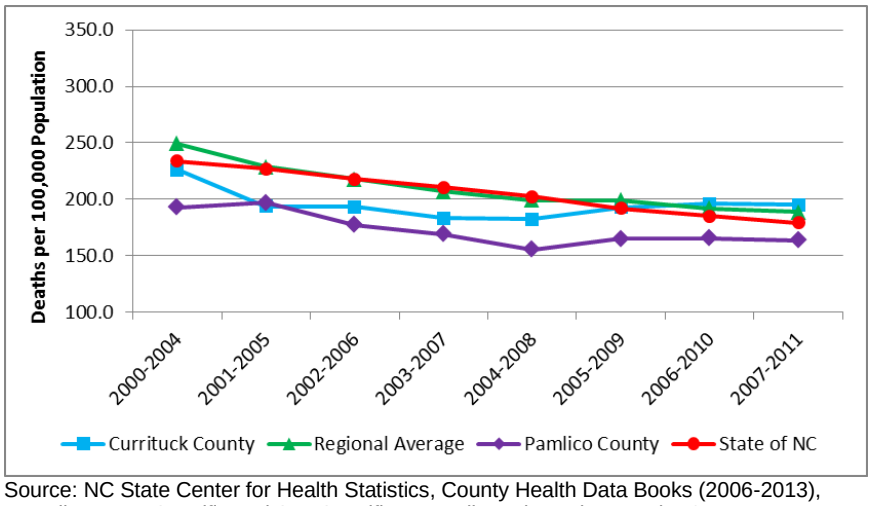
Source: Albemarle Health and The Outer Banks Hospital

Heart Disease Mortality Rate Trend

Figure 22 displays the heart disease mortality rate trend over time in the four jurisdictions being compared in this CHA.

- The heart disease mortality rate fell in all four jurisdictions over the period cited.
- The largest decrease over the period cited—24%—occurred in the ARHS region.
- The heart disease mortality rate for Currituck County fell by 14% (from 226.1 to 195.0) between 2000-2004 and 2007-2011.
- At the state level, the heart disease mortality rate fell 23% over the period cited.

Figure 22. Overall Heart Disease Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Heart Disease Mortality

Table 142 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 Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the heart disease mortality rate was lowest in Pamlico County and highest in Currituck County. Among African American non-Hispanic persons the heart disease mortality rate was lowest statewide and highest in Currituck County.
- There appeared to be a large gender difference in heart disease mortality in all jurisdictions; this disparity will be described in greater detail below.

Table 142. Race/Ethnicity-Specific and Sex-Specific Heart Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

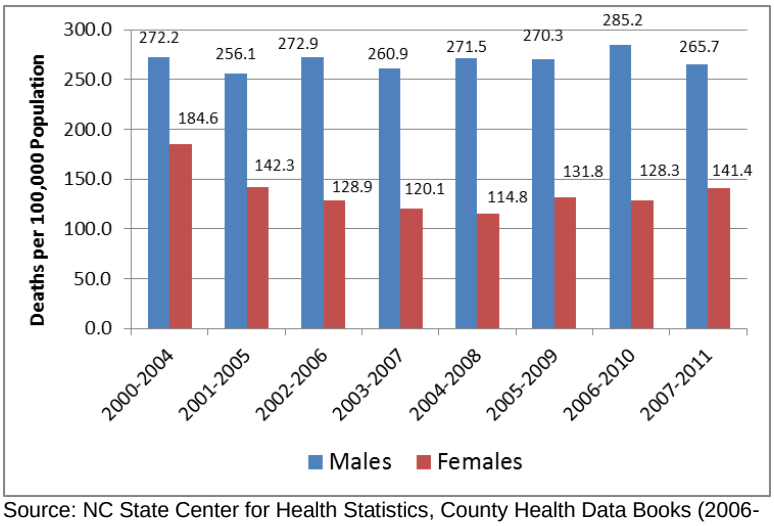
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	200	194.4	22	256.3	0	N/A	0	N/A	133	265.7	89	141.4	222	195.0
Regional Average	148	185.4	71	222.3	1	N/A	0	N/A	122	256.2	97	136.6	220	188.9
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 23 depicts gender-stratified heart disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- It appears that the gender difference in heart disease mortality noted in Currituck County for 2007-2011 is actually longstanding. At times during the period cited the rate for males was more than twice the rate for females.

Figure 23. Sex-Specific Heart Disease Mortality Rate Trend, Currituck 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 143 presents heart disease mortality rate data stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of heart disease deaths in some stratified populations the NC SCHS suppressed the related mortality rates.
- 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 143. 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
Currituck County	257.0	N/A	N/A	N/A	143.5	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/.

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 (55).

Pneumonia/influenza was the third leading cause of death in Currituck County in the 2007-2011 aggregate period. It was ranked the eleventh leading cause of death in the ARHS region and ninth statewide in that period (cited previously); it was unranked in Pamlico County since it did not have a stable rate due to a below-threshold number of deaths.

Pneumonia and Influenza Hospitalizations

Table 144 presents hospital discharge rate trend data. It appears from this data that no jurisdiction demonstrated a clear pattern of pneumonia/influenza hospitalizations.

Table 144. Pneumonia and Influenza Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	2.7	2.0	1.2	1.4	1.7	1.7	1.3
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 32 hospital admissions for pneumonia/influenza among Currituck County residents; this figure includes hospitalizations anywhere in NC (54).

The ICD-9 codes for pneumonia are 480-487 and the code for influenza is 488. Table 145 presents data on 2012 hospitalizations of Currituck County residents in Albemarle Hospital and The Outer Banks Hospitals for diagnoses in those categories. There were 26 such inpatient hospitalizations in 2012 with a diagnosis of pneumonia; there were no hospitalizations of Currituck County residents in 2012 associated with a diagnosis of influenza.

Table 145. Inpatient Hospitalizations of Currituck County Residents for Pneumonia and Influenza, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
480-487	**Pneumonia**	19	7
488	**Influenza**	0	0

Source: Albemarle Health and The Outer Banks Hospital

Table 146 presents data on the number of emergency department (ED) admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 associated with a diagnosis of pneumonia or influenza. For the period from 2010-2012 Currituck County residents made a total of 153 ED visits to Albemarle Hospital and The Outer Banks Hospital for pneumonia, and seven ED visits for influenza.

Table 146. Emergency Department Admissions of Currituck County Residents for Pneumonia and Influenza, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
480-487	**Pneumonia**	41	72	40	153
488	**Influenza**	2	5	0	7

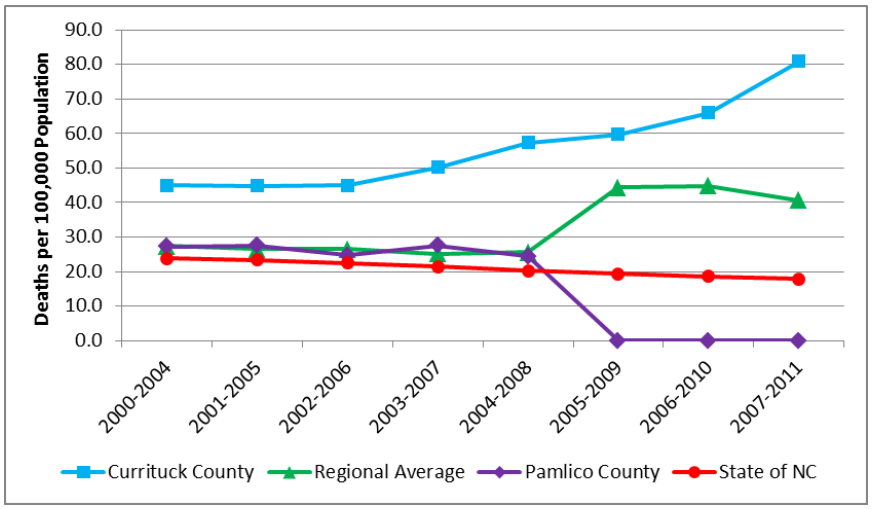
Source: Albemarle Health and The Outer Banks Hospital

Pneumonia and Influenza Mortality Rate Trend

Figure 24 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 Currituck County was consistently the highest among the comparators and in 2007-2011 was several times both the regional and state rates.
- The pneumonia/influenza mortality rate in Currituck County demonstrated a significant rise between 2000-2004 and 2007-2011, increasing by 80% from 45.0 to 80.9 over that period.
- The pneumonia/influenza mortality rate in Pamlico County seemed to be falling until 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 24. 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 147 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 Currituck County and elsewhere, mortality rates were suppressed for those groups.
- 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 147. Race/Ethnicity-Specific and Sex-Specific Pneumonia and Influenza Mortality (Single Five-Year Aggregate Period, 2007-2011)

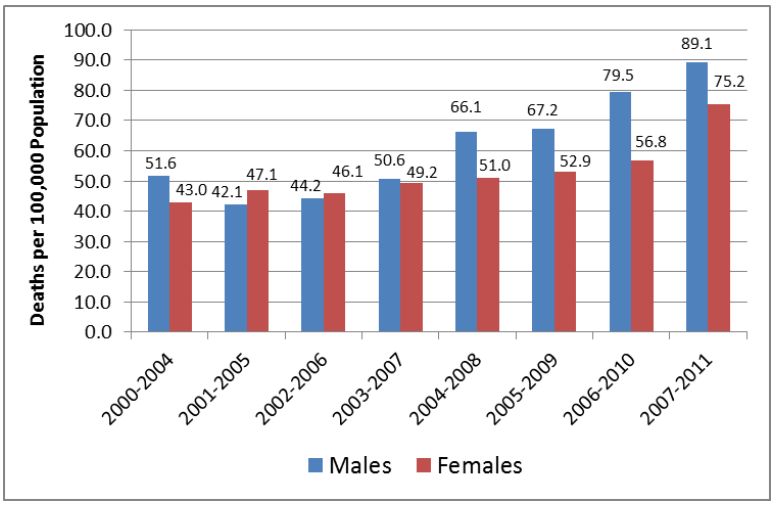
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	68	78.0	12	N/A	0	N/A	0	N/A	35	89.1	45	75.2	80	80.9
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 25 depicts gender-stratified pneumonia/influenza mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- While apparently there has been a long-term gender difference in the pneumonia/influenza mortality rate in Currituck County, perhaps more significant is that the mortality rate for both men and women has been increasing. Note that all the stratified rates for females were stable, as were all the rates for males beginning in 2003-2007.

Figure 25. Sex-Specific Pneumonia and Influenza Mortality Rate Trend, Currituck 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 most 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).

Chronic Lower Respiratory Disease (CLRD)

Chronic lower respiratory disease (CLRD) is composed of three major diseases, chronic bronchitis, emphysema, and asthma, all of which are characterized by shortness of breath caused by airway obstruction and sometimes lung tissue destruction. The obstruction is irreversible in chronic bronchitis and emphysema, reversible in asthma. Before 1999, CLRD was called *chronic obstructive pulmonary disease* (COPD). Some in the field still use the designation COPD, but limit it to mean chronic bronchitis and emphysema only. In the US, tobacco use is a key factor in the development and progression of CLRD/COPD, but exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections also play a role (56).

CLRD was the fourth leading cause of death in Currituck County, the fourth leading cause of death in Pamlico County, and the third leading cause of death in the ARHS region and NC in the 2007-2011 period (cited previously).

CLRD/COPD Hospitalizations

Table 148 presents the hospital discharge rate trend data for COPD (the term still used by some data-compiling organizations). COPD discharge rates were variable in all jurisdictions.

Table 148. COPD Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	4.3	2.9	3.4	3.1	1.8	2.6	2.8
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 67 hospital admissions for COPD among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

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 149 presents data on 2012 inpatient hospitalizations of Currituck County residents at Albemarle Hospital or The Outer Banks Hospital for diagnoses of COPD. There were 53 inpatient hospitalizations at these hospitals for treatment of COPD among Currituck County residents in 2012.

Table 149. Inpatient Hospitalizations of Currituck County Residents for COPD, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
490-496	**Chronic obstructive pulmonary disease**	47	6

Source: Albemarle Health and The Outer Banks Hospital

Table 150 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital or The Outer Banks Hospital in 2010-2012 for diagnoses associated with COPD. There was a total of 412 and an annual average of 137 ED visits to those hospitals by Currituck County residents with diagnoses of COPD.

Table 150. Emergency Department Admissions of Currituck County Residents for COPD, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
490-496	**Chronic obstructive pulmonary disease**	132	146	134

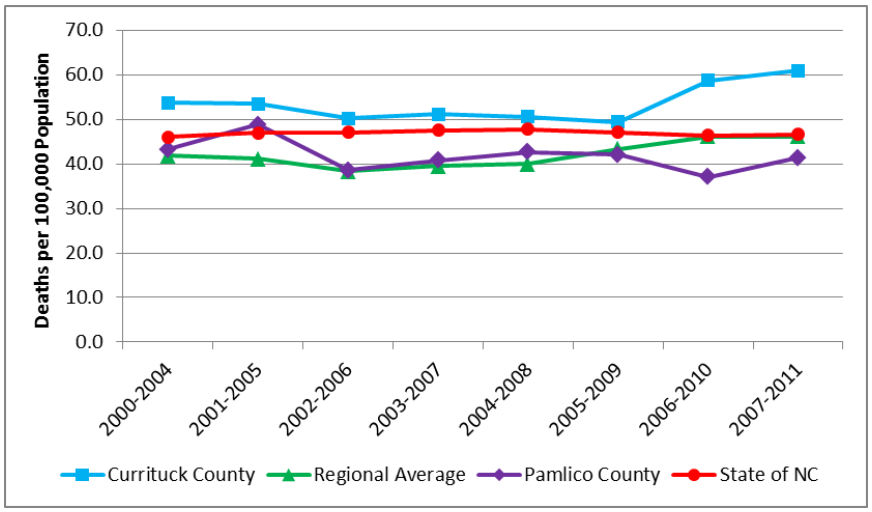
Source: Albemarle Health and The Outer Banks Hospital

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 Currituck County was the highest among the comparator jurisdictions throughout the period cited, and rose 13% between 2000-2004 (53.7) and 2007-2011 (60.9).
- The CLRD mortality rate in Pamlico decreased 4% between the endpoints of the period cited.
- The regional CLRD mortality rate increased by 10% between 2000-2004 and 2007-2011.
- 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 151 presents CLRD mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Note that due to below-threshold numbers of CLRD disease deaths among some stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the CLRD mortality rate was lowest in Pamlico County and highest in Currituck County.
- 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 Currituck County, the region and the state the rate for males was higher than the rate for females; in Pamlico County the reverse was true.

Table 151. Race/Ethnicity-Specific and Sex-Specific CLRD Mortality
(Single Five-Year Aggregate Period, 2007-2011)

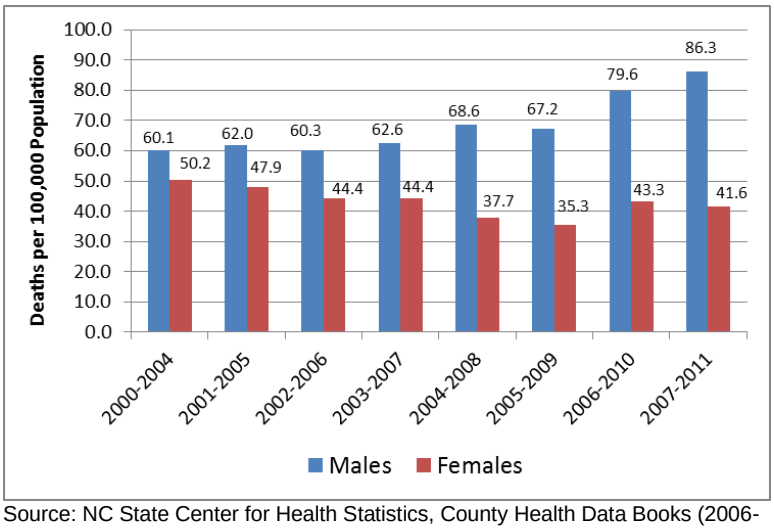
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	67	63.7	2	N/A	2	N/A	0	N/A	46	86.3	25	41.6	71	60.9
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 Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- In every aggregate period the CLRD mortality rate among Currituck County males was higher than the rate for females. Further, the CLRD mortality rate for males appears to be increasing, while the rate for females appears to be decreasing.

Figure 27. Sex-Specific CLRD Mortality Rate Trend, Currituck 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 152 presents CLRD mortality rates stratified by gender and race/ethnicity for 2007-2011.

- Because of below-threshold numbers of CLRD deaths in some stratified categories, the NC SCHS suppressed the associated mortality rates.
- At the state level, the CLRD mortality rate was highest among white non-Hispanic males, followed by white non-Hispanic females, African American non-Hispanic males, non-Hispanic males of other races, and African American non-Hispanic females. CLRD mortality rates statewide were lowest among male and female Hispanics.

Table 152. 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
Currituck County	91.3	N/A	N/A	N/A	41.8	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 the fifth leading cause of death in Currituck County in 2007-2011. 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).

All Other Unintentional Injury Hospitalizations

Neither the NC SCHS nor the hospitals participating in this assessment use a diagnosis specific for hospitalizations caused by non-motor vehicle injury. Table 153 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 Currituck County was the lowest in every year cited.

Table 153. Injuries and Poisonings Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	3.0	2.7	2.4	2.3	2.7	2.1	1.9
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 46 injury and poisoning hospitalizations among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

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 154 presents data on 2012 inpatient hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital for diagnoses of injury or poisoning. Note that this list does not include all diagnoses in the category. There were 37 inpatient hospitalizations of Currituck County residents at those hospitals for treatment of injuries and poisoning in 2012.

Table 154. Inpatient Hospitalizations of Currituck County Residents for Injury and Poisoning, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
800-829	**Fractures**	15	3
830-839	**Dislocations**	0	0
840-848	**Sprains and strains**	0	0
850-854	**Intracranial injury**	0	0
870-897	**Open wounds**	0	0
910-919	**Superficial injury**	0	0
930-939	**Foreign body entering through orifice**	1	0
960-979	**Poisoning by drugs and medicinal substances**	7	0
990--995	**Other effects of external causes**	3	0
996-999	**Complications of surgical and medical care**	8	0

Source: Albemarle Health and The Outer Banks Hospital

Table 155 presents data on the number of emergency department (ED) admissions of Currituck County residents to Albemarle Hospital or The Outer Banks Hospital in 2010-2012 for diagnoses associated with injury and poisoning.

- For the period from 2010-2012 there was a total of 3,001 and an annual average of 1,000 ED visits to Albemarle Hospital and The Outer Banks Hospital by Currituck County residents for diagnoses of injury and poisoning in the categories listed below.
- The three diagnoses resulting in the largest number of ED admissions of Currituck County residents were: sprains and strains (688), contusions (516), and open wounds (508).

Table 155. Emergency Department Admissions of Currituck County Residents for Injury and Poisoning, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
800-829	Fractures	124	132	145	401
830-839	Dislocations	21	17	14	52
840-848	Sprains and strains	234	236	218	688
850-854	Intracranial injury	19	12	21	52
860-869	Internal injury	2	6	4	12
870-897	Open wounds	163	172	173	508
910-919	Superficial injury	60	64	76	200
920-924	Contusions	150	181	185	516
925-929	Crushing injury	3	0	4	7
930-939	Foreign body entering through orifice	17	20	19	56
940-949	Burns	18	7	21	46
950-957	Injury to nerves and spinal cord	1	1	1	3
958-959	Traumatic complications	62	77	73	212
960-979	Poisoning by drugs and medicinal substances	17	18	21	56
980-989	Toxic effects of chiefly nonmedicinal substances	16	12	11	39
990--995	Other effects of external causes	29	32	38	99
996-999	Complications of surgical and medical care	21	15	18	54
TOTAL		957	1,002	1,042	3,001

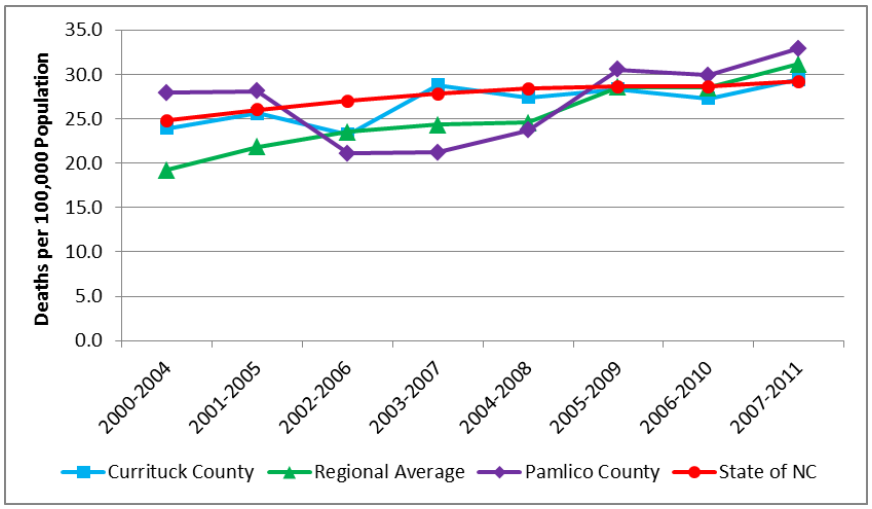
Source: Albemarle Health and The Outer Banks Hospital

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 appeared to increase over the period cited in each of the four comparator jurisdictions.
- In Currituck County, the overall increase was 23%, from 23.9 in 2000-2004 to 29.4 in 2007-2011.
- In Pamlico County, only the last four rates were stable; they 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 156 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.
- Among white non-Hispanic persons in the comparator jurisdictions, the all other unintentional injury mortality rate was lowest in Currituck County and highest in Pamlico County.
- 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 difference 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 156. Race/Ethnicity-Specific and Sex-Specific All Other Unintentional Injury Mortality (Single Five-Year Aggregate Period, 2007-2011)

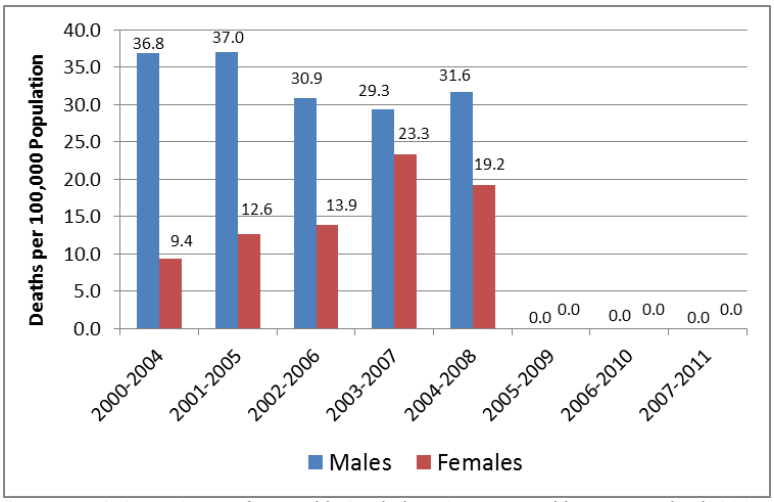
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	33	31.8	0	N/A	0	N/A	1	N/A	17	N/A	17	N/A	34	29.4
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 Currituck 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 gender disparity in mortality from all other unintentional injuries, with males consistently experiencing the higher rate. Noteworthy is an apparent increase in the rate among females in the county.

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

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 the sixth leading cause of death in Currituck County in 2007-2011. It was the seventh leading cause region-wide, the sixth in Pamlico County, and the tenth statewide in that period (cited previously).

Unintentional Motor Vehicle Injury Hospitalizations

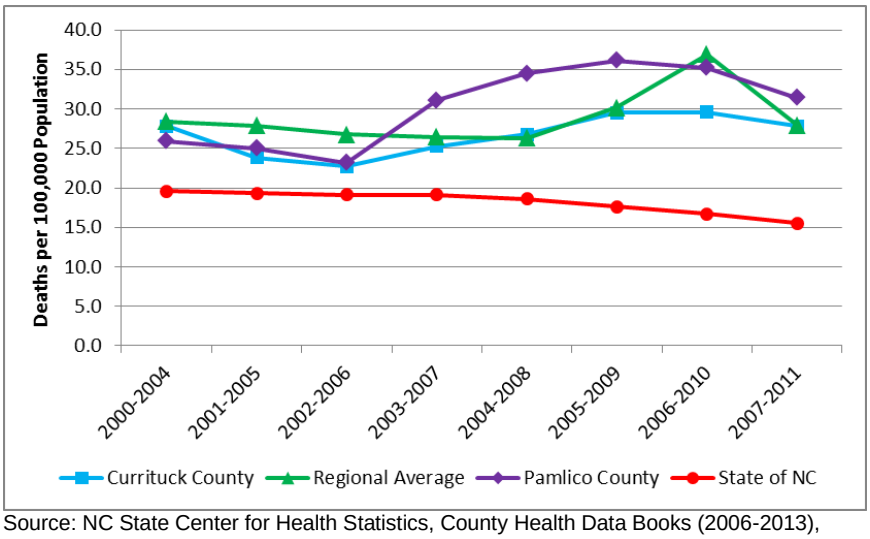
As noted previously in the discussion of all other unintentional injuries, neither the NC SCHS nor the hospitals participating in this assessment use a diagnosis specific for hospitalizations caused by motor vehicle injury. Instead, hospitalizations for injuries of all kinds appear in a category called *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 30 displays the unintentional motor vehicle injury mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The state unintentional motor vehicle injury mortality rate was consistently the lowest and fell 21% over the period cited.
- The unintentional motor vehicle injury mortality rate in Currituck County fluctuated over the period cited but was the same in 2007-2011 as it was in 2000-2004: 27.8.

Figure 30. Unintentional Motor Vehicle Injury Mortality Rate Trend (Five-Year Aggregate Periods, 2000-2004 through 2007-2011)



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

Gender and Racial Disparities in Unintentional Motor Vehicle Injury Mortality

Table 157 presents unintentional motor vehicle injury mortality data for the aggregate period 2007-2011, stratified by race and sex.

- Due to below-threshold numbers of unintentional motor vehicle injury deaths among stratified populations in Currituck County and elsewhere, mortality rates were suppressed for those groups, leaving little data to compare.
- Stratified unintentional motor vehicle injury mortality rates were higher across the ARHS region than across the state as a whole.
- 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 because the regional rates were composed of county rates some of which were unstable, the regional rates, too likely were unstable.
- Statewide, the unintentional motor vehicle injury rate for males was 2.7 *times* the comparable rate for females.

Table 157. Race/Ethnicity-Specific and Sex-Specific Unintentional Motor Vehicle Injury Mortality
(Single Five-Year Aggregate Period, 2007-2011)

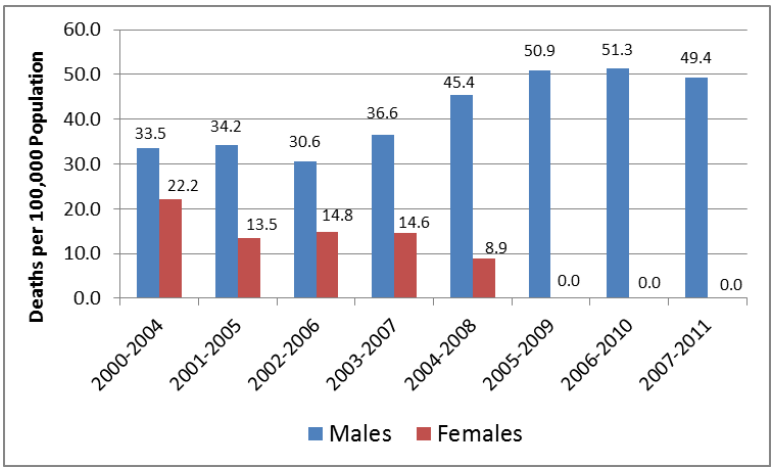
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	28	26.5	2	N/A	0	N/A	2	N/A	27	49.4	5	N/A	32	27.8
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 31 depicts gender-stratified unintentional motor vehicle injury mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- The unintentional motor vehicle injury mortality rate among males in the county was as many as five times the comparable rate for females. Further, the rate for males appeared to have increased, while the rate for females appeared to have decreased. Note, however, that all of the rates for females were either unstable or suppressed (as indicated by “0”).

Figure 31. Sex-Specific Unintentional Motor Vehicle Injury Mortality Rate Trend, Currituck 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 158 presents unintentional motor vehicle injury mortality data, stratified by age group. Note that this data is *not* age-adjusted.

- Statewide, the 20-39 age group has the highest motor vehicle injury mortality rate (21.1), followed by the 40-64 age group (16.0).
- Although many of the age-stratified mortality rates in the counties were unstable, they appeared to follow the same pattern as NC as a whole.

Table 158. 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
Currituck County	32	26.7	**3**	**9.5**	**15**	**55.6**	**11**	**23.7**
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 159 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 Currituck County the six-year average of alcohol-related traffic crashes was 7.2%. Region-wide the comparable average was 5.7%, in Pamlico County it was 7.2%, and in NC it was 5.3%

Table 159. 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
Currituck County	361	27	7.5	360	32	8.9	337	25	7.4	324	21	6.5	334	23	6.9	339	20	5.9
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 160 presents detail on the outcomes of alcohol-related crashes in 2011.

- In 2011 in Currituck County 5.9% of all crashes, 4.1% of all property damage only crashes, 7.8% of non-fatal crashes, and 40.0% of all fatal crashes were alcohol-related. Note however, that the figure for percent of alcohol-related fatal crashes was based on a small number of deaths, and may be unstable.
- Statewide in 2011 5.1% of all crashes, 3.5% of all property damage only crashes, 8.1% of all non-fatal crashes, and 32.6% of fatal crashes were alcohol-related.

Table 160. 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
Currituck County	339	20	5.9	219	9	4.1	115	9	7.8	5	2	40.0
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 161 displays data on automobile/pedestrian crashes in Currituck County over the period from 2006-2010.

- There were all together 12 automobile/pedestrian crashes during the period.
- The most common location for automobile/pedestrian crashes (7 of 12) was non-roadway sites.
- The most common type of automobile/pedestrian crash involved pedestrians walking off the roadway (3 of 12).
- The motorists in automobile/pedestrian crashes were most frequently in the under 19 age group (4 of 12).
- The pedestrians in automobile/pedestrian crashes were most frequently in the 16-20 age group (6 of 12).
- Excessive speed was indicated in two 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 or was unknown in nine of the crashes.

Table 161. Automobile/Pedestrian Crashes, Currituck County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Intersection	0	0	2	0	0	2
Non-Intersection	1	2	0	0	0	3
Non-Roadway	1	2	0	3	1	7
Total	2	4	2	3	1	12
Crash Type						
Backing Vehicle – Parking Lot	1	0	0	1	0	2
Motor Vehicle Loss of Control	0	1	1	0	0	2
Off Roadway – Other/Unknown	0	1	0	1	1	3
Pedestrian Failed to Yield	0	1	1	0	0	2
Pedestrian Loss of Control	0	0	0	1	0	1
Walking Along Roadway Against Traffic – From Front	1	0	0	0	0	1
Walking Along Roadway With Traffic – From Behind	0	1	0	0	0	1
Total	2	4	2	3	1	12
Driver Age Group						
0-19	1	1	1	1	0	4
20-24	0	1	0	1	0	2
30-39	1	0	0	0	0	1
40-49	0	1	0	1	0	2
50-59	0	1	0	0	1	2
60-69	0	0	1	0	0	1
Total	2	4	2	3	1	12
Pedestrian Age Group						
11-15	0	0	0	1	0	1
16-20	2	1	1	1	1	6
26-30	0	1	0	0	0	1
41-50	0	1	1	0	0	2
51-60	0	0	0	1	0	1
61-79	0	1	0	0	0	1
Total	2	4	2	3	1	12
Excessive Speed Indicated						
No	2	3	2	2	1	10
Yes	0	1	0	1	0	2
Total	2	4	2	3	1	12
Hit and Run						
No	2	4	2	3	1	12
Total	2	4	2	3	1	12
Fault						
Motorist at Fault	1	1	0	0	0	2
Pedestrian at Fault	0	1	0	0	0	1
Fault Not Coded	0	0	2	3	1	6
Unknown	1	2	0	0	0	3
Total	2	4	2	3	1	12

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 162 (next page) presents data on automobile/bicycle crashes in Currituck County in the period from 2006-2010.

- There were all together 14 automobile/bicycle crashes in Currituck County during the period.
- The most common location for automobile/bicycle crashes (9 of 14) was non-intersection sites.
- The most common type of automobile/bicycle crash was bicyclist failed to yield/midblock (3 of 14).
- The motorists in automobile/bicycle crashes were most frequently in the 30-39 age group (4 of 14).
- The cyclists in automobile/bicycle crashes were most frequently 11-15 (3 of 14).
- Excessive speed was not indicated in any of the automobile/bicycle crashes.
- One of the automobile/bicycle crashes was deemed hit and run.
- The bicyclist was at fault in two of the automobile/bicycle crashes, and the motorist was at fault in one of the crashes. Fault was not coded or was unknown in 11 crashes.

Table 162. Automobile/Bicycle Crashes, Currituck County (2006-2010)

Parameter	2006	2007	2008	2009	2010	Total
Crash Location						
Intersection	1	1	0	1	1	4
Non-Intersection	0	2	2	4	1	9
Non-Roadway	0	0	1	0	0	1
Total	1	3	3	5	2	14
Crash Type						
Bicyclist Failed to Yield - Midblock	0	1	0	2	0	3
Bicyclist Left Turn / Merge	0	0	0	0	1	1
Bicyclist Right Turn / Merge	0	0	2	0	0	2
Crossing Paths – Other Circumstances	1	0	0	1	0	2
Motorist Failed to Yield – Sign-Controlled Intersection	0	1	0	0	1	2
Motorist Overtaking Bicyclist	0	1	0	1	0	2
Non-Roadway	0	0	1	0	0	1
Other/Unknown – Insufficient Details	0	0	0	1	0	1
Total	1	3	3	5	2	14
Driver Age Group						
20-24	0	0	2	0	0	2
25-29	0	0	0	1	1	2
30-39	1	0	1	1	1	4
40-49	0	1	0	1	0	2
50-59	0	1	0	1	0	2
60-69	0	1	0	0	0	1
Unknown	0	0	0	1	0	1
Total	1	3	3	5	2	14
Bicyclist Age Group						
11-15	1	1	0	1	0	3
16-19	0	1	0	1	0	2
20-24	0	0	0	1	0	1
25-29	0	0	2	0	0	2
30-39	0	1	0	0	0	1
40-49	0	0	1	0	1	2
50-59	0	0	0	1	1	2
70+	0	0	0	1	0	1
Total	1	3	3	5	2	14
Excessive Speed Indicated						
No	1	3	3	5	2	14
Total	1	3	3	5	2	14
Hit and Run						
No	1	3	3	4	2	13
Yes	0	0	0	1	0	1
Total	1	3	3	5	2	14
Fault						
Bicyclist at Fault	0	2	0	0	0	2
Motorist at Fault	0	1	0	0	0	1
Fault Not Coded	0	0	3	5	2	10
Unknown	1	0	0	0	0	1
Total	1	3	3	5	2	14

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.

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 seventh leading cause of death in Currituck County, the third leading cause of death in Pamlico County, and the fourth leading cause of death in the Albemarle region and the state of NC (cited previously).

Cerebrovascular Disease Hospitalizations

Table 163 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 Currituck County.

Table 163. Cerebrovascular Disease Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	1.0	1.1	1.4	1.0	1.2	1.1	0.7
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 17 hospital admissions for CVD among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

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 164 presents data on 2012 hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital with diagnoses of cerebrovascular disease. There were 17 such hospitalizations among Currituck County residents in 2012.

Table 164. Inpatient Hospitalizations of Currituck County Residents for Cerebrovascular Disease, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
430-438.9	**Cerebrovascular disease**	13	4

Source: Albemarle Health and The Outer Banks Hospital

Table 165 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with cerebrovascular disease. For the period from 2010-2012 Currituck County residents made 44 ED visits associated with diagnoses of cerebrovascular disease.

Table 165. Emergency Department Admissions of Currituck County Residents for Cerebrovascular Disease, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
430-438.9	Cerebrovascular disease	17	10	17

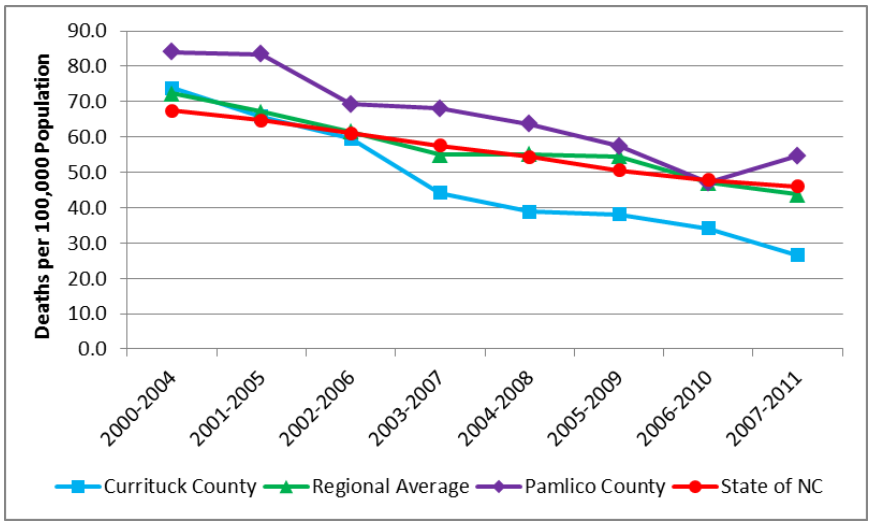
Source: Albemarle Health and The Outer Banks Hospital

Cerebrovascular Disease Mortality Rate Trend

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

- The CVD mortality rate in Currituck County was lowest among the four comparators from 2002-2006 through 2007-2011.
- CVD mortality rates in every jurisdiction fell over the period cited. The overall decrease in Currituck County was 64%, from 73.8 in 2000-2004 to 26.5 in 2007-2011. Comparable decreases were 35% in Pamlico County, 40% region-wide, and 32% statewide.

Figure 32. 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 166 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 in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, CVD mortality rates were highest in Pamlico County and lowest in Currituck County.
- 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 166. Race/Ethnicity-Specific and Sex-Specific Cerebrovascular Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

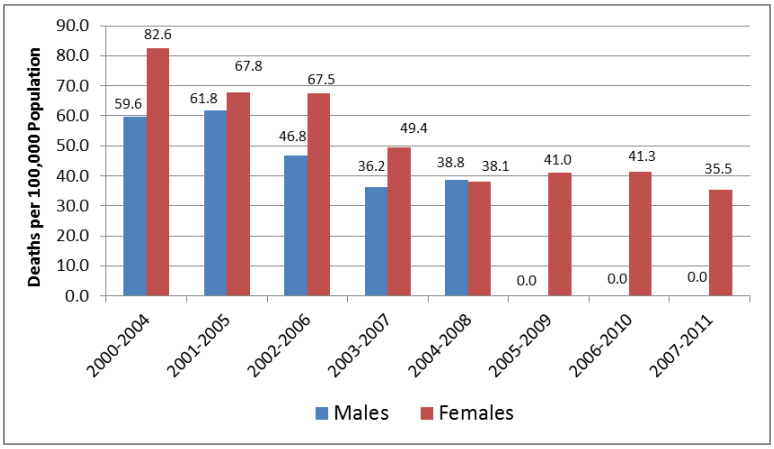
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	25	25.0	5	N/A	0	N/A	0	N/A	8	N/A	22	35.5	30	26.5
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 33 depicts gender-stratified CVD mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- The graph demonstrates that the CVD mortality rate among Currituck County females was higher than the CVD mortality rate among Currituck County males over the period cited, and that rates for both decreased over time.

Figure 33. Sex-Specific Cerebrovascular Disease Mortality Rate Trend, Currituck 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 167 presents CVD mortality rate data fully stratified by gender and race/ethnicity for the period 2007-2011.

- Because of below-threshold numbers of CVD deaths in some stratified categories, the NC SCHS suppressed the associated mortality rates, leaving little data to compare.
- 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 167. 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
Currituck 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/.

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 (58).

Alzheimer's disease was the eighth leading cause of death in Currituck County and the ARHS region, the seventh in Pamlico County, and the sixth in NC in the 2007-2011 aggregate period (cited previously).

Alzheimer's Disease Hospitalizations

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

Alzheimer's disease is coded 331.0 in the ICD-9 system; however, it can be difficult to diagnose and may first be identified as other forms of dementia, which are coded 290, 294.1 and 294.2. According to data provided for Albemarle Hospital and The Outer Banks Hospital, neither recorded inpatient hospitalizations among Currituck County residents with diagnoses in those ICD-9 code categories in 2012.

Table 168 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with Alzheimer's disease and other forms of dementia. For the period from 2010-2012 there was a total of seven ED visits to the region's four hospitals by Currituck County residents with diagnoses of Alzheimer's disease or other forms of dementia.

Table 168. Emergency Department Admissions of Currituck County Residents for Alzheimer's Disease and Other Forms of Dementia, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
331.0	Alzheimer's disease	0	0	2	2
331.1	Frontotemporal dementia	0	0	0	0
331.2	Senile degeneration of the brain	0	0	0	0
290	Dementia	0	1	0	1
294.1	Dementia in condition classified elsewhere	0	0	0	0
294.2	Dementia, unspecified	0	1	3	4

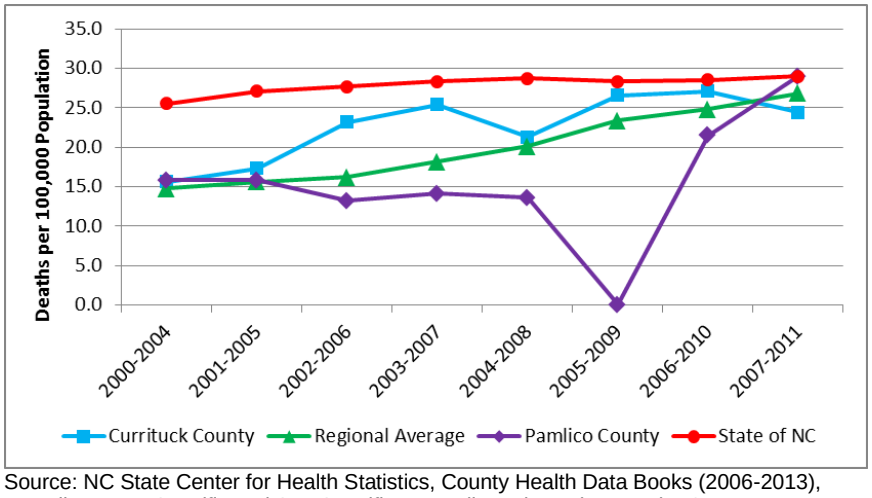
Source: Albemarle Health and The Outer Banks Hospital

Alzheimer's Disease Mortality Rate Trend

Figure 34 displays the Alzheimer's disease mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The Alzheimer's disease mortality rate in Currituck County was lower than the comparable rate for NC throughout the interval cited. However, the Currituck County rate rose 56% over that period, from 15.6 in 2000-2004 to 24.4 in 2007-2011. Over the same period the NC rate rose 14%.
- 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 rose dramatically to a stable high in 2007-2011 after a previous period of instability.

Figure 34. 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 169 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 in Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the Alzheimer's disease mortality rate was highest statewide and lowest in Currituck County.
- Statewide, the Alzheimer's disease mortality rate was 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.

Table 169. Race/Ethnicity-Specific and Sex-Specific Alzheimer's Disease Mortality (Single Five-Year Aggregate Period, 2007-2011)

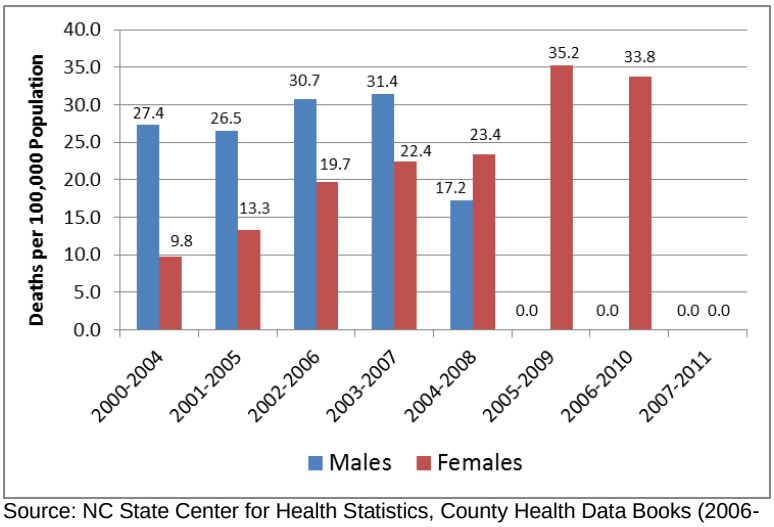
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	22	26.1	1	N/A	0	N/A	0	N/A	5	N/A	18	N/A	23	24.4
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 35 depicts gender-stratified Alzheimer's disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- Early in the period cited the Alzheimer's disease mortality among Currituck County males exceeded the comparable rate among females, a pattern apparently no longer the case since the mortality rate among women in the county has risen significantly. While the 2005-2009 and 2006-2010 data points for females were stable, all the other rates in the graph were unstable or suppressed.

Figure 35. Sex-Specific Alzheimer's Disease Mortality Rate Trend, Currituck 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.

Suicide

Suicide was the ninth leading cause of death in Currituck County in 2007-2011. It was unranked in Pamlico due to below-threshold numbers of deaths, but 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 Currituck County after Alzheimer's disease.

Suicide Hospitalizations

At the present time the NC SCHS does not track hospitalizations related to suicide or attempted suicide.

Hospitals do, however, track a diagnosis called Suicide Ideation, which is coded V62.84 in the ICD-9 system. There were no inpatient hospitalizations of Currituck County residents with that ICD-9 code at Albemarle Hospital or The Outer Banks Hospital in 2012. There were, however, 35 emergency department visits by Currituck County residents coded for suicide ideation, which are listed in Table 170.

Table 170. Emergency Department Admissions of Currituck County Residents for Suicide Ideation, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
V62.84	**Suicide ideation**	14	7	14	35

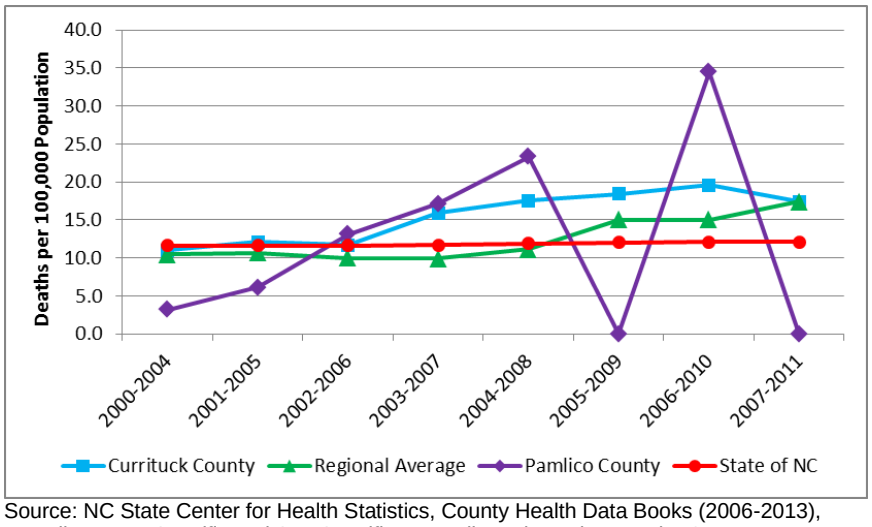
Source: Albemarle Health and The Outer Banks Hospital

Suicide Mortality Rate Trend

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

- The suicide mortality rate for Currituck County was unstable for the first four aggregate periods cited but stable for the last four. Over that time, the suicide mortality rate in the county rose 58%, from 11.0 in 2000-2004 to 17.4 in 2007-2011.
- The suicide mortality rates for Pamlico County were either unstable or suppressed throughout most of the period cited. However, the high rate noted in the 2006-2010 period *was* stable and continued an apparent trend of sharp increase.
- 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 stable at approximately 11.8 throughout the period cited.

Figure 36. 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 171 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 Currituck County and elsewhere, mortality rates were suppressed for those groups.
- Among white non-Hispanic persons, the suicide mortality rate was higher in Currituck County and the ARHS region than in the state as a whole.
- 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 171. Race/Ethnicity-Specific and Sex-Specific Suicide Mortality
(Single Five-Year Aggregate Period, 2007-2011)

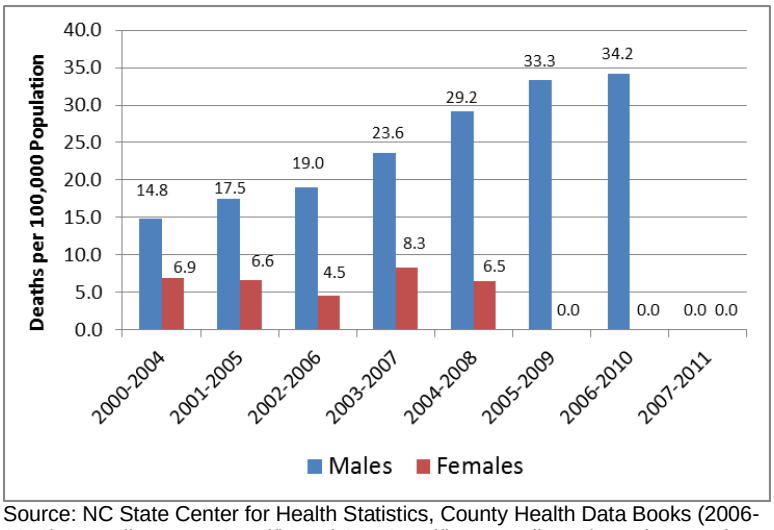
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	21	18.7	0	N/A	0	N/A	1	N/A	19	N/A	3	N/A	22	17.4
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 37 depicts gender-stratified suicide mortality rates in Currituck 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 Currituck County. The graph demonstrates that the suicide rate among males was several times the comparable mortality rate among females. Although all the rates for females and all but the 2005-2009 and 2006-2010 rates for males were either unstable or suppressed, this disproportionate-pattern of gender-based suicide mortality is common throughout NC. Note also that the suicide mortality rate among Currituck County males appeared to be increasing.

Figure 37. Sex-Specific Suicide Mortality Rate Trend, Currituck 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 (59).

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

Chronic Liver Disease and Cirrhosis Hospitalizations

Table 172 presents hospital discharge rate trend data for chronic liver disease and cirrhosis. Note that most of the county-level rates were unstable.

Table 172. 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
Currituck County	**0.2**	**0.1**	**0.2**	**0.2**	**0.1**	**0.0**	**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/.

In 2011 the NC SCHS did not specifically list hospitalizations for chronic liver disease and cirrhosis for Currituck County (53).

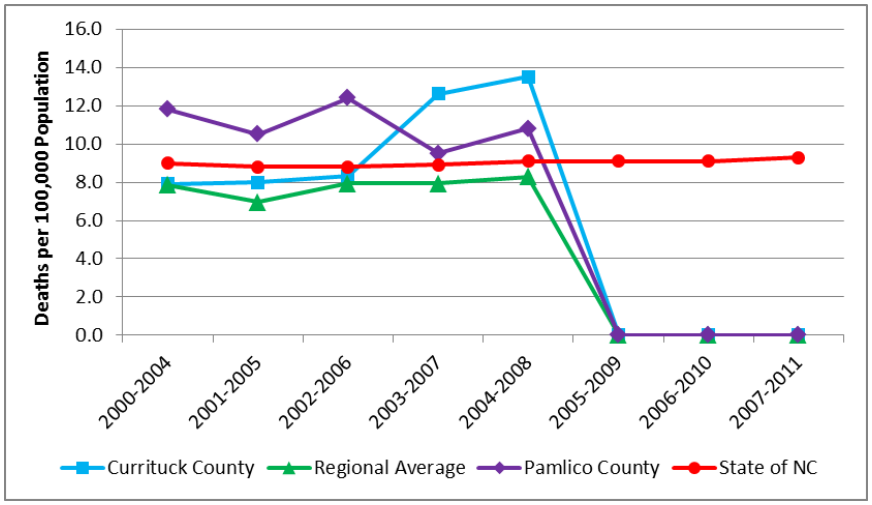
The ICD-9 Code for chronic liver disease and cirrhosis is 571, and the code for liver abscess and sequelae of chronic liver disease is 572. According to data from Albemarle Hospital and The Outer Banks Hospital there were no inpatient hospitalizations of Currituck County residents under those codes at either hospital in 2012. Neither were there any ED admissions of Currituck County residents at either hospital under those code categories in the period from 2010 through 2012.

Chronic Liver Disease and Cirrhosis Mortality Rate Trend

Figure 38 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 Currituck County or the other local jurisdictions were unstable or suppressed. Given the large number of unstable or suppressed rates detailed comparisons are not warranted.
- The chronic liver disease and cirrhosis mortality rate for NC as a whole was essentially unchanged at approximately 9.0 over the period cited.

Figure 38. 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 173 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 Currituck 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 173. Race/Ethnicity-Specific and Sex-Specific Chronic Liver Disease and Cirrhosis Mortality (Single Five-Year Aggregate Period, 2007-2011)

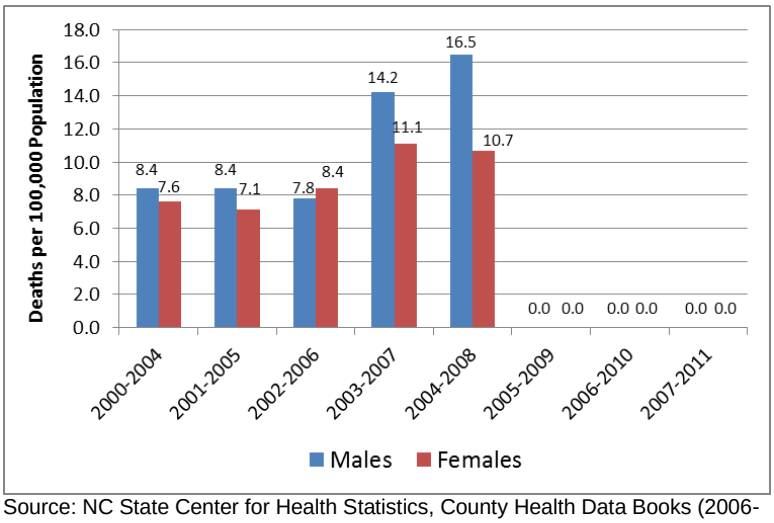
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	16	N/A	1	N/A	0	N/A	0	N/A	14	N/A	3	N/A	17	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 39 depicts gender-stratified chronic liver disease and cirrhosis mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- According to the graph, the chronic liver disease and cirrhosis mortality rate among Currituck County males appeared to be higher than the comparable rate among Currituck County females for all but one of the time periods shown. However, it should be noted that all the gender-stratified mortality rates were unstable or suppressed.

Figure 39. Sex-Specific Chronic Liver Disease and Cirrhosis Mortality Rate Trend, Currituck 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.

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 Currituck County and Pamlico County in 2007-2011 due to below-threshold numbers of deaths. It was ranked the fifth leading cause of death 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 Currituck County after chronic liver disease and cirrhosis.

Diabetes Mellitus Hospitalizations

Table 174 presents hospital discharge rate trend data for diabetes. The rates for Currituck County were lowest among the four jurisdictions in every year cited.

Table 174. Diabetes Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	**0.4**	0.8	0.5	1.1	0.6	0.7	0.8
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 18 hospitalizations for diabetes among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

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. Table 175 presents data on 2012 inpatient hospitalizations of Currituck County residents for diagnoses of diabetes mellitus. There were 21 total inpatient hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital for diagnoses of diabetes in 2012.

Table 175. Inpatient Hospitalizations of Currituck County Residents for Diabetes Mellitus, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
250.0-250.9	**Diabetes mellitus**	19	2

Source: Albemarle Health and The Outer Banks Hospital

Table 176 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with diabetes. For that period there was a total of 80 ED visits to those hospitals by Currituck County residents for diagnoses associated with diabetes.

Table 176. Emergency Department Admissions of Currituck County Residents for Diabetes Mellitus, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
250.0-250.9	**Diabetes mellitus**	18	22	40

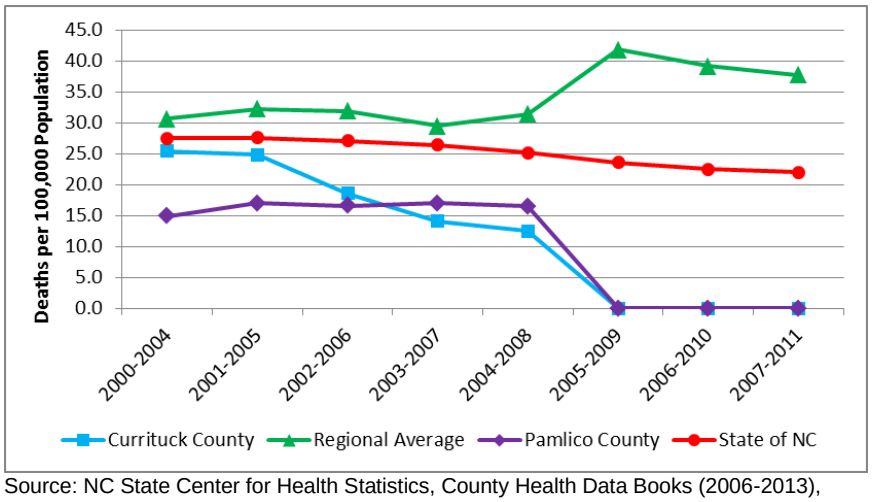
Source: Albemarle Health and The Outer Banks Hospital

Diabetes Mellitus Mortality Rate Trend

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

- The diabetes mortality rate in Currituck County was lower than the regional and state rates throughout the period cited, and appeared to be decreasing. It should be noted that all the rates for both counties were either unstable or suppressed.
- 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 40. 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 177 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 Currituck 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 177. 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
Currituck County	12	N/A	3	N/A	0	N/A	0	N/A	10	N/A	5	N/A	15	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

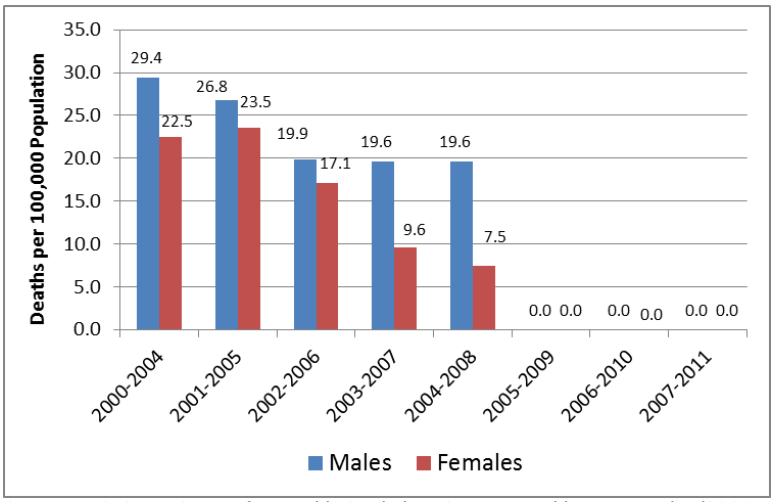
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County;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

Figure 41 depicts gender-stratified diabetes mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- The diabetes mortality rate among Currituck County males has been higher than the comparable rate among females, and the gap appears to have widened as the rate

leveled among males and decreased among females. Note that all the rates in the graph were unstable or suppressed.

Figure 41. Sex-Specific Diabetes Mellitus Mortality Rate Trend, Currituck 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 Currituck 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 Currituck County after diabetes.

Nephritis, Nephrotic Syndrome and Nephrosis Hospitalizations

Table 178 presents the hospital discharge rate trend data for the above named composite of kidney disorders. According to this data, the lowest kidney disease hospital discharge rates among the comparators occurred in Currituck County.

Table 178. Nephritis, Nephrosis, Nephrotic Syndrome Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	0.6	**0.4**	**0.4**	0.4	0.4	**0.1**	**0.3**
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 eight hospital discharges for nephritis, nephrotic syndrome and nephrosis among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

Diagnoses of nephritis, nephrotic syndrome and nephrosis are coded 580-589 in the ICD-9 system. Table 179 lists inpatient hospitalizations among Currituck County residents in these code categories in 2012. There were 18 hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital in 2012 for diagnoses associated with nephritis, nephrotic syndrome and nephrosis.

Table 179. Inpatient Hospitalizations of Currituck County Residents for Kidney Diseases, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
580-589	**Nephritis, nephrotic syndrome, nephrosis**	16	2

Source: Albemarle Health and The Outer Banks Hospital

Table 180 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with kidney diseases. For that period there was a total of 13 ED visits to those hospitals by Currituck County residents with diagnoses of nephritis, nephrotic syndrome or nephrosis.

Table 180. Emergency Department Admissions of Currituck County Residents for Kidney Diseases, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
580-589	**Nephritis, nephrotic syndrome, nephrosis**	3	3	7	13

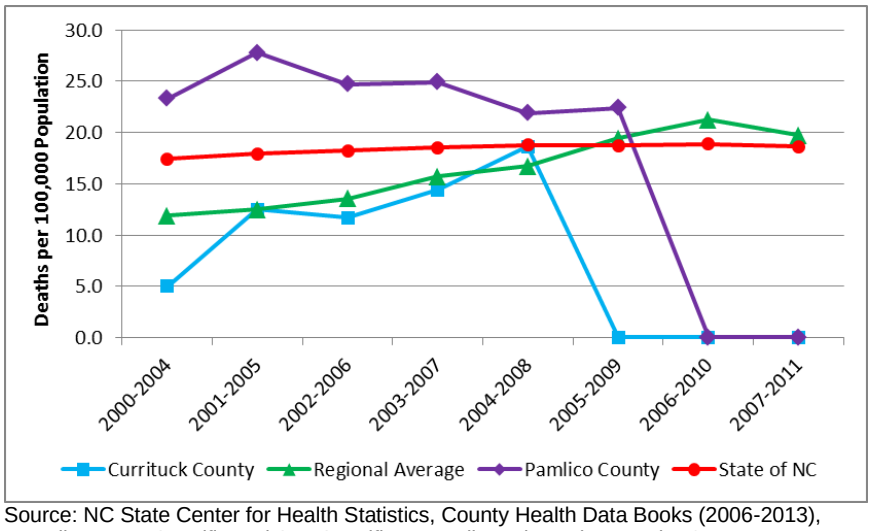
Source: Albemarle Health and The Outer Banks Hospital

Nephritis, Nephrotic Syndrome and Nephrosis Mortality Rate Trend

Figure 42 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 throughout the period cited. Currituck County had the lowest or co-lowest mortality rate in the first four aggregate periods.
- The kidney disease mortality rate in Currituck County more than tripled overall (from 5.0 to 18.6) between 2000-2004 and 2004-2008. It must be noted, however, that all the Currituck County rates 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 42. 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 181 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 Currituck 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 181. Race/Ethnicity-Specific and Sex-Specific Nephritis, Nephrotic Syndrome and Nephrosis Mortality (Single Five-Year Aggregate Period, 2007-2011)

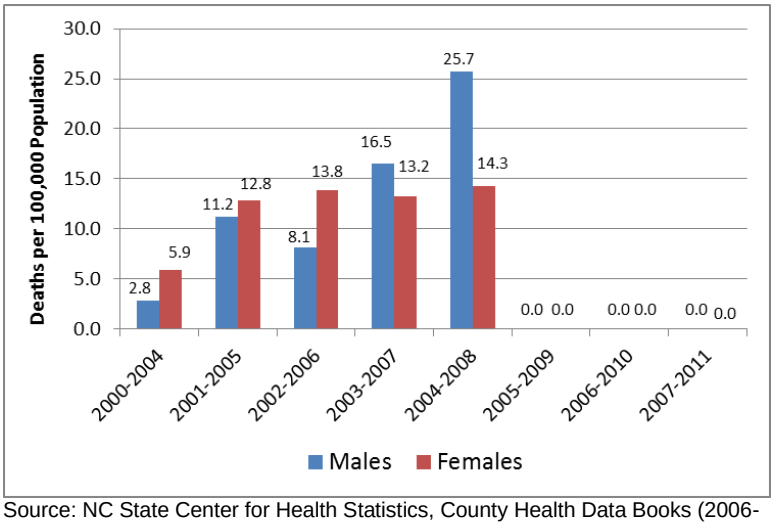
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	13	N/A	2	N/A	0	N/A	0	N/A	11	N/A	4	N/A	15	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 43 depicts gender-stratified kidney disease mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- While early in the interval cited in the graph the kidney disease mortality rate among Currituck County females exceeded the comparable rate among males, that pattern appeared to have reversed. Noteworthy too, is that the rate among males in the county appeared to be increasing. However, it should be noted that all the gender-stratified kidney disease mortality rates in the graph were either unstable or suppressed.

Figure 43. Sex-Specific Nephritis, Nephrotic Syndrome, Nephrosis Mortality Rate Trend, Currituck 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).

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 (63). 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 Currituck 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 Currituck County after kidney disease.

Septicemia Hospitalizations

Table 182 presents hospital discharge rate trend data for septicemia. According to this data, the lowest rate occurred consistently in Currituck County. The septicemia discharge rate in every jurisdiction was higher in 2011 than in 2005, in some cases twice as high.

Table 182. Septicemia Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	**0.3**	**0.2**	**0.3**	**0.1**	0.4	0.5	0.4
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 10 hospital admissions for septicemia among Currituck County residents; this figure includes hospitalizations anywhere in NC (53).

The ICD-9 Code for septicemia is 038. Table 183 presents data on inpatient hospitalizations of Currituck County residents associated with a diagnosis of septicemia. There were 25 such hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital in 2012.

Table 183. Inpatient Hospitalizations of Currituck County Residents for Septicemia, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
038	Septicemia	24	1

Source: Albemarle Health and The Outer Banks Hospital

Table 184 presents data on the number of emergency department admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 associated with a diagnosis of septicemia. There were seven such ED visits by Currituck County residents in that period.

Table 184. Emergency Department Admissions of Currituck County Residents for Septicemia, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
038	Septicemia	0	5	2	7

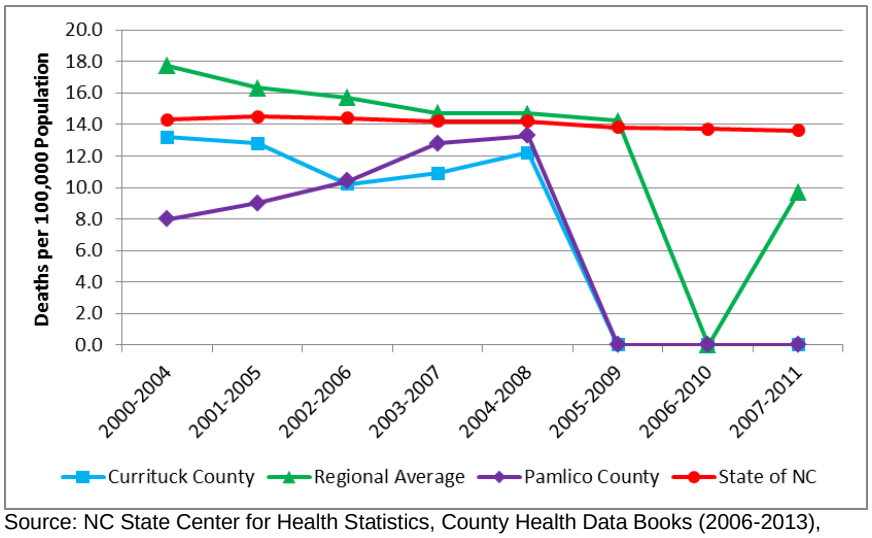
Source: Albemarle Health and The Outer Banks Hospital

Septicemia Mortality Rate Trend

Figure 44 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 rates in Currituck County and Pamlico County were lower than the comparable rates region-wide and statewide for the period cited, but it should be noted that all the rates for the counties were unstable or suppressed.
- The septicemia mortality rate for NC as a whole decreased 5% between 2000-2004 and 2007-2011.

Figure 44. 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 185 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 Currituck 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 185. 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
Currituck County	13	N/A	1	N/A	0	N/A	0	N/A	4	N/A	10	N/A	14	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

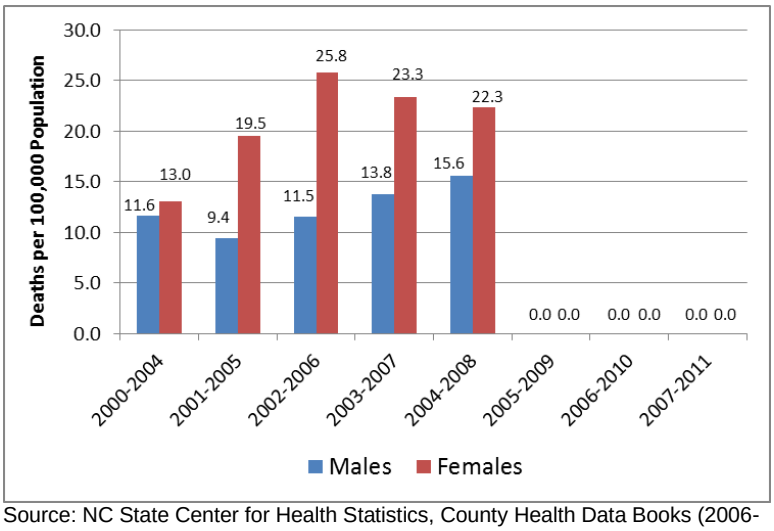
Note: The use of "n/a" in lieu of a numeral indicates a likely unstable rate based on a small (fewer than 20) number of cases.
Source: NC State Center for Health Statistics, County Health Data Book (2013), Mortality, 2007-2011 Race/Ethnicity Specific and Sex-Specific Age-Adjusted Death Rates by County;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

Figure 45 depicts gender-stratified septicemia mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- It appears from the data below that the septicemia mortality rate for females in Currituck County was higher than the comparable rate for males in every period for which there were published rates. Note that the rates for both sexes were higher in 2004-2008

(before rates were suppressed) than in 2000-2004. It also appeared that up until the time rates were suppressed the septicemia mortality was increasing among county males and decreasing among females. It should be noted that all the septicemia mortality rates for the period cited were either unstable or suppressed.

Figure 45. Sex-Specific Septicemia Mortality Rate Trend, Currituck 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).

Homicide

Homicide was an unranked cause of death in Currituck 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). It is being discussed here in this report on the basis of causing the next highest number of deaths in Currituck County after septicemia.

Homicide Hospitalizations

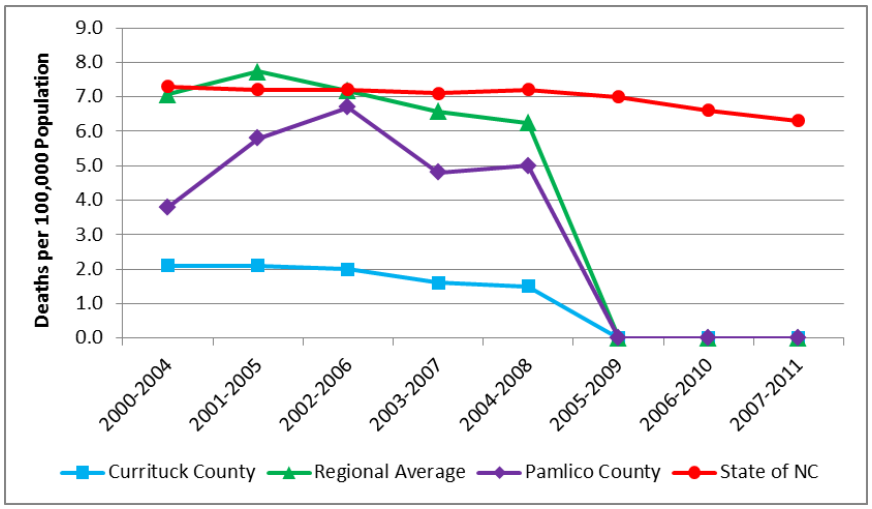
At the present time the NC SCHS does not track hospitalizations related to homicide or attempted homicide. There is an ICD-9 code descriptive of Homicidal Ideation (V62.85), and according to data provided by the hospitals, one Currituck County resident was admitted under that code to the emergency department of Albemarle Hospital in 2010-2012; there were no comparable ED admissions at The Outer Banks Hospital in that period, and there were no inpatient hospitalizations coded homicidal ideation at either hospital in 2012.

Homicide Mortality Rate Trend

Figure 46 displays the homicide mortality rate trend over time for each of the four jurisdictions being compared in this CHA.

- The homicide mortality rate in Currituck County was the lowest among the comparator jurisdictions during the entire 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 46. 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 186 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 a gender-based difference in homicide mortality, with the rate for males over three times the comparable rate for females.

Table 186. Race/Ethnicity-Specific and Sex-Specific Homicide Mortality (Single Five-Year Aggregate Period, 2007-2011)

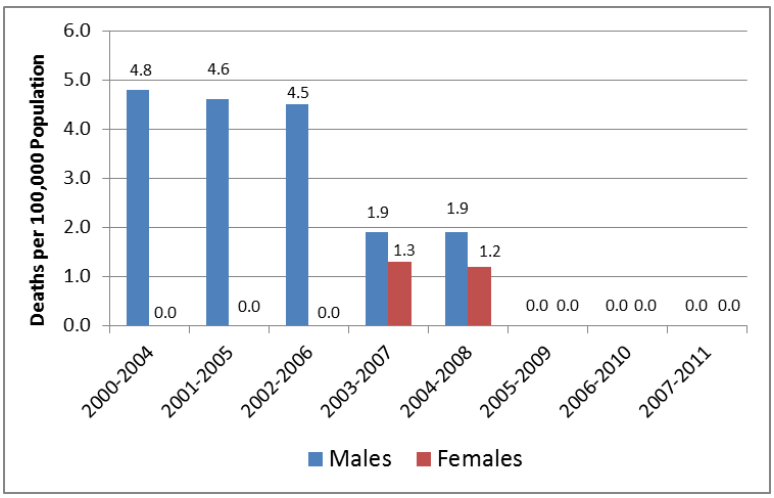
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	4	N/A	0	N/A	0	N/A	0	N/A	1	N/A	3	N/A	4	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 47 depicts gender-stratified homicide mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- Although all the rates for males were either unstable or suppressed due to below-threshold numbers of events, the disproportional gender-based pattern of homicide mortality noted—mortality rates much higher among males—is common throughout NC.
- Note that the “zero” values plotted for Currituck County females in the 2000-2004 through 2002-2006 aggregate periods actually represent true zero values. The last three plots of “zero” for both sexes represent suppressed rates.

Figure 47. Sex-Specific Homicide Mortality Rate Trend, Currituck 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).

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) (64).

AIDS was an unranked cause of death in Currituck 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). It is being discussed here in this report on the basis of causing the next highest number of deaths in Currituck County after homicide.

AIDS Hospitalizations

Table 187 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 187. AIDS Hospital Discharge Rate Trend (2005-2011)

Location	Rate (Discharges per 1,000 Population)						
	2005	2006	2007	2008	2009	2010	2011
Currituck County	**0.1**	**n/a**	**0.0**	**0.0**	**0.2**	**0.0**	**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/.

The NC SCHS listed no HIV/AIDS hospital discharges of Currituck County residents in 2011 (53).

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 Albemarle Hospital and The Outer Banks Hospital, one Currituck County resident was hospitalized for HIV/AIDS in 2012.

Table 188 presents data on the number of emergency department admissions of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital in 2010-2012 associated with a diagnosis of AIDS. For the period from 2010-2012 there were five such admissions.

Table 188. Emergency Department Admissions of Currituck County Residents for AIDS, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
042	Acquired immune deficiency syndrome	3	1	1	5

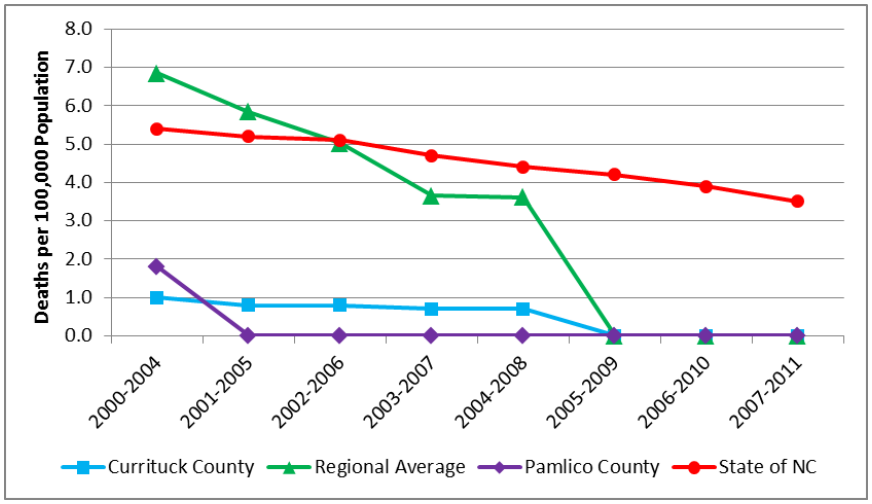
Source: Albemarle Health and The Outer Banks Hospital

AIDS Mortality Rate Trend

Figure 48 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 48. 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 189 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 189. Race/Ethnicity-Specific and Sex-Specific AIDS Mortality (Single Five-Year Aggregate Period, 2007-2011)

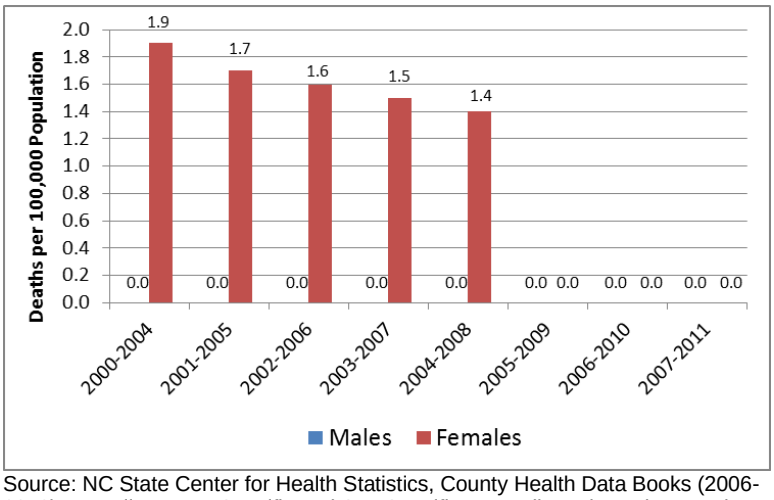
Location	Deaths, Number and Rate (Deaths per 100,000 Population)													
	White, Non-Hispanic		African American, Non-Hispanic		Other Races, Non-Hispanic		Hispanic		Male		Female		Overall	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Currituck County	2	N/A	0	N/A	0	N/A	0	N/A	2	N/A	0	N/A	2	N/A
Regional Average	1	N/A	3	N/A	0	N/A	0	N/A	3	N/A	1	N/A	4	N/A
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 49 depicts gender-stratified AIDS mortality rates in Currituck County for the aggregate periods 2000-2004 through 2007-2011.

- All the AIDS mortality rates shown in the graph were either unstable or suppressed. The apparent pattern of higher AIDS mortality rates for females than for males definitely is *not* the norm.

Figure 49. Sex-Specific AIDS Mortality Rate Trend, Currituck 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.

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 (65).

Table 190 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).
- Among the comparators the lowest chlamydia infection rate in every year was in Currituck County, but the local rate more than doubled between 2007 and 2011.
- 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 190. 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
Currituck County	33	138.3	33	136.6	42	173.4	39	165.6	66	280.3
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 (66).

Table 191 presents incidence data (i.e., new cases diagnosed) for gonorrhea infections.

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

Table 191. 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
Currituck County	83	76.4	83	73.6	81	69.9	93	78.9	102	85.5
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 192 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 8 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 192. 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
Currituck County	102	85.5	60	56.4	39	449.8	**1**	**75.4**	**2**	**71.2**
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 Currituck County and its comparators tend to be low and yield extremely variable or suppressible rates. (For example, there were three new HIV cases in Currituck County in the three-year period from 2009-2011.) Instead, Table 193 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 14 persons with HIV/AIDS living in Currituck County.

Table 193. HIV Prevalence: HIV and AIDS Cases Living as of December 31, 2011 (By County of Residence)

Location	Number of Living Cases
Currituck County	14
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 194 presents a summary of 2012 inpatient hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital for *selected diagnoses* of infectious and parasitic diseases.

- In 2012 there were eight hospitalizations among Currituck County residents at Albemarle Hospital and The Outer Banks Hospital for diagnoses of infectious and parasitic diseases *in selected categories listed below*. The majority of the hospitalizations (5 of 8) were associated with intestinal infectious diseases.

Table 194. Inpatient Hospitalizations of Currituck County Residents for Infectious and Parasitic Diseases, Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	2012 Inpatient Hospitalizations		
		OBH	AH	Total
001-009	**Intestinal Infectious Diseases**			
003	Salmonella (including food-borne)	0	1	1
008.4	Other specified bacteria (incl. Staphylococcus)	1	1	2
009	Ill-defined intestinal infections	1	1	2
080-088	**Rickettsiosis and other arthropod-borne diseases**			
082.4	Erlichiosis	0	1	1
110-118	**Mycoses**			
112	Candidiasis	1	1	2

Source: Albemarle Health and The Outer Banks Hospital.

Table 195 lists a summary of emergency department visits to Albemarle Hospital and The Outer Banks Hospital by Currituck 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 184 ED visits by Currituck County residents resulting in specific diagnoses of infectious and parasitic diseases.
- Among the 17 ED admissions for intestinal infectious diseases listed, the most common diagnosis (15 cases) was viral enteritis.
- Among the 71 ED admissions for other bacterial diseases listed, the most common diagnosis (68 cases) was streptococcal sore throat.
- Among the 39 ED admissions for viral diseases generally accompanied by exanthema (rash) listed, the most common diagnosis (25 cases) was *Herpes zoster* (e.g., shingles).
- Among the 5 ED admissions for other diseases due to viruses and chlamydiae listed, the most common diagnosis (3 cases) was infectious mononucleosis.
- Of the 37 ED admissions for mycoses (fungal infections) listed, the most common diagnosis (25 cases) was candidiasis (i.e., yeast infections).

Table 195. Emergency Department Admissions of Currituck County Residents for Infectious and Parasitic Diseases, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Emergency Department Visits		
		2010	2011	2012
001-009	**Intestinal Infectious Diseases**			
008.4	Other specified bacteria (incl. Staphylococcus)	0	0	1
008.6	Viral enteritis	1	0	0
008.8	Viral enteritis	3	8	3
009	Ill-defined intestinal infections	1	0	0
030-041	**Other bacterial diseases**			
034.0	Streptococcal sore throat	25	31	12
034.1	Scarlet fever	1	0	1
041	Bacterial infections in conditions classified elsewhere	0	0	1
050-059	**Viral diseases generally accompanied by exanthem**			
052	Chickenpox	3	0	1
053	Herpes zoster (incl. shingles)	14	6	5
054	Herpes simplex	3	5	2
070-079	**Other diseases due to viruses and chlamydiae**			
070	Viral hepatitis	0	0	2
075	Infectious mononucleosis	0	3	0
080-088	**Rickettsiosis and other arthropod-borne diseases**			
088.81	Lyme disease	1	0	0
110-118	**Mycoses**			
110	Dermatophytosis	1	6	5
112	Candidiasis	5	12	8
130-136	**Other infectious and parasitic diseases**			
133.0	Scabies	2	5	7

Source: Albemarle Health and The Outer Banks Hospital

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 (67).

Table 196 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 196. 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
Currituck County	25	105.2	**3**	**75.2**	**7**	**29.4**	**0**	**0.0**	13	55.2	**2**	**44.4**
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). Table 197 presents data on 2012 inpatient hospitalizations of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital for a diagnosis of asthma. There were 12 such hospitalizations in 2012.

Table 197. Inpatient Hospitalizations of Currituck County Residents for Albemarle Hospital and The Outer Banks Hospital (2012)

ICD-9 Code	Diagnosis	Number of Inpatient Hospitalizations	
		Albemarle Hospital	The Outer Banks Hospital
493	**Asthma**	11	1

Source: Albemarle Health and The Outer Banks Hospital

Table 198 presents data on the number of emergency department admissions of Currituck County residents at Albemarle Hospital and The Outer Banks Hospital in 2010-2012 for diagnoses associated with asthma. For the period from 2010-2012 there was a total of 238 ED visits to those hospitals by Currituck County residents for treatment of asthma; this computes to an annual average of 79 visits.

Table 198. Emergency Department Admissions of Currituck County Residents for Asthma, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
493	**Asthma**	79	89	70

Source: Albemarle Health and The Outer Banks Hospital

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 (68).

Table 199 presents estimates of the prevalence of diagnosed diabetes in adults age 20 and older in Currituck County and its local comparators (state-level data was not available).

- The five-year average prevalence in Currituck County was 8.8%; the five-year average for the region was 11.4%, and the five-year average for Pamlico County was 11.9%.
- In Currituck County the prevalence of diabetes increased 29% between 2005 and 2009; regionally the increase was 11%. In Pamlico County diabetes prevalence increased 11%.

Table 199. 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	
	#	%	#	%	#	%	#	%	#	%
Currituck County	1,337	7.8	1,405	7.9	1,547	8.7	1,685	9.3	1,801	10.1
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 21 inpatient hospitalizations at area hospitals among Currituck County residents for diabetes, and from 2010-2012 there were 80 ED admissions associated with the diagnosis of diabetes.

Obesity

Obesity in Adults

Table 200 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 Currituck County was 27.4%; 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 Currituck County, the estimated prevalence of diagnosed obesity in adults increased 38% between 2005 and 2009. The increase region-wide was 13% and in Pamlico County the increase was 2%.

Table 200. 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	
	#	%	#	%	#	%	#	%	#	%
Currituck County	4,079	23.7	4,355	24.5	4,851	27.2	5,270	29.1	5,820	32.6
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 (69). (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 201 presents NC NPASS data for children ages 2-4 for the period 2007-2011.

- Currituck County had the highest percentage of obese 2-4 year olds among the comparators in 2007 and 2008, but the lowest percentage in 2009, 2010, and 2011. The county also had the lowest or second-lowest percentage of overweight 2-4 year olds in 2007 through 2010 but the highest percentage in 2011.
- The five-year average percent of overweight 2-4 year old children in Currituck County was 15.2%; the five-year average of obese 2-4 year olds in the county was 14.0%.
- 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 201. 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
Currituck County	13.4	15.9	15.8	18.6	13.3	10.6	14.5	10.8	19.1	14.0
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. Currituck 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 Currituck County.

As noted in the Health Resources section of this report the ratio of dentists-to-population in Currituck County is low, and there are few dentists in the county that accept Medicaid and/or HealthChoice patients. 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 202 lists ED visits to Albemarle Hospital and The Outer Banks Hospital in 2010-2012 by Currituck County residents for conditions associated with this code category.

- For the three year period 2010-2012, Currituck County residents made a total of 299 visits (an annual average of 100 visits) to local EDs for attention to dental problems.

Table 202. Emergency Department Admissions of Currituck County Residents for Dental Conditions, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions		
		2010	2011	2012
520.6	Disturbance in tooth eruption	0	1	0
520.7	Teething syndrome	0	0	1
521.0	Dental caries	13	18	30
522	Diseases of pulp and periapical tissue	20	19	21
523	Gingival and periodontal disease	5	2	2
524	Dentofacial anomalies, including malocclusion	4	4	2
525	Other diseases of the teeth and supporting structure	52	43	62
Total		94	87	118

Source: Albemarle Health and The Outer Banks Hospital

A search of the hospital databases revealed the following payers for *all* dental ED visits to Albemarle Hospital and The Outer Banks Hospital by Currituck County residents:

- Self-pay covered an annual average of 59% of the ED visits listed;
- Medicaid covered an annual average of 24% of those visits; and
- 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 203 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 Currituck County receive 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 203. 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
Currituck County	1,968	708	36.0	1,232	292	23.7
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 (70).

Table 204 presents partial summaries of the screenings conducted in SY2005-2006 through SY2008-2009.

- An average of 95.0% of kindergarteners, and 96.0% of fifth graders in Currituck 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 20.8% of kindergarteners and 3.5% of fifth graders in Currituck 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 204. 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
Currituck County	99.0	25.0	101.0	6.0	94.0	23.0	95.0	4.0	91.0	19.0	95.0	3.0	96.0	16.0	93.0	1.0
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 Currituck 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 (71).

The local management entity serving Currituck 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 205 presents an annual summary of the number of persons in each jurisdiction served by LMEs/Area Programs from 2005 through 2010.

- In Currituck County the number of persons served by mental health area programs fluctuated from year to year over the period cited, but fell 3% overall between 2005 and 2010.
- 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 205. Persons Served by Mental Health Area Programs/Local Management Entities (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Currituck County	572	580	607	609	543	554
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 (72).

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 206 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 Currituck County, the net decrease from 2005 to 2010 was 77%; in Pamlico County the net decrease was 94%, and statewide it was 61%.

Table 206. Persons Served in NC State Psychiatric Hospitals (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Currituck County	44	34	24	11	18	10
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 207 presents ED admissions of Currituck County residents to Albemarle Hospital and The Outer Banks Hospital relative to ICD-9 Codes 290-319, Mental, Behavioral and Neurodevelopmental Disorders for the period 2010-2012. Of specific interest in this case are the numbers of admissions for mental health diagnoses excluding dementias, which were covered in the discussion of Alzheimer's disease in the mortality section of this report. The period covered is 2010-2012.

- In the period cited there was a total of 458 ED visits by Currituck County residents to the Albemarle Hospital or Outer Banks Hospital ED with complaints diagnosed as mental or behavioral disorders. The total computes to an annual average of 153 ED visits. 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 non-dependent abuse of drugs, which represented 25% of all the visits listed in the table.

Table 207. Emergency Department Admissions of Currituck County Residents for Mental, Behavioral and Neurodevelopmental Disorders, Albemarle Hospital and The Outer Banks Hospital (2010-2012)

ICD-9 Code	Diagnosis	Number of ED Admissions			
		2010	2011	2012	Total
290-319	**Mental, Behavioral and Neurodevelopmental Disorders**				
291	Alcohol-induced mental disorders	1	5	1	7
292	Drug-induced mental disorders	3	9	5	17
295	Schizophrenic disorders	4	4	3	11
296	Episodic mood disorders (including bipolar disorder)	16	23	35	74
298	Other nonorganic and unspecified mood disorders	8	10	9	27
300	Anxiety, dissociative and somatoform disorders	28	34	34	96
303	Alcohol dependence syndrome	14	21	4	39
304	Drug dependency	11	10	10	31
305	Non-dependent abuse of drugs	27	34	53	114
311	Depressive disorder, not elsewhere classified	16	16	10	42
Total		128	166	164	458

Source: Albemarle Health and The Outer Banks Hospital

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 (73).

The NC Council on Developmental Disabilities estimated that as of January, 2011 there were over 167,000 persons in NC with a developmental disability (74).

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 208 presents a summary of the persons in each jurisdiction served in NC State Developmental Centers for the period from 2005 through 2010.

- The numbers of persons in the three local jurisdictions served in state developmental centers were small and variable, and demonstrated no definitive pattern other than falling then rising again.
- At the state level, the number of persons served decreased by 37% between 2005 and 2010.

Table 208. Persons Served in NC State Developmental Centers (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Currituck County	2	2	0	1	3	3
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 209 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 variable, and demonstrated no definitive pattern.
- At the state level, the number of persons served increased by 20% between 2005 and 2010.

Table 209. Persons Served in NC Alcohol and Drug Abuse Treatment Centers (2005-2010)

Location	Number of Persons Served					
	2005	2006	2007	2008	2009	2010
Currituck County	13	19	16	33	35	16
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 207, cited previously, presented 2010-2012 ED admissions of Currituck 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 seven total admissions under ICD-9 Code 291, Alcohol-induced mental disorders, and 17 total admissions under ICD-9 Code 292, Drug-induced mental disorders.
- There also were 39 total admissions under ICD-9 Code 303, Alcohol dependence syndrome, and 31 total admissions under ICD-9 Code 304, Drug dependency.
- There were 114 total admissions under ICD-9 Code 305, Non-dependent use of drugs.

Substance Use and Abuse among Youth

Tobacco

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

Table 210 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 210. 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 Currituck 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 (75).

According to EPA data, in 2011 there were no facilities in Currituck County reporting TRI releases of any kind to any destination (76).

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 (77).

As of July 21, 2012, SDWIS listed 25 active water systems in Currituck County. Eight were *community water systems* that together served 23,199 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. Several water systems in Currituck County exist for the use of residential developments.

SDWIS also listed one non-transient, non-community water system in Currituck County that served a total of 165 people. These are water systems that serve the same people, but not year-round (e.g. schools that have their own water system). In Currituck County, the non-transient, non-community water system is at Knott's Island Elementary School.

Finally, SDWIS listed 16 transient, non-community water systems in Currituck County that serve an estimated 1,615 people. Transient, non-community water systems are those that serve different people at different times at sites such as campgrounds, parks, restaurants and gas stations.

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

- All of the active water systems utilize groundwater.
- All but one of the community water systems in Currituck experienced health-based violations in the past, for either excessive trihalomethanes or coliforms. There were no reported violations after 2005.
- Three of the 16 transient, non-community water systems had health-based violations, one as recently as 2011.

Table 211. Active Water Systems in Currituck County (As of July 12, 2012)

Type of Water System	Total Population Served	Primary Water Source Type	Health Violations 2000-2011
Community Water Systems			
Carolina Village Mobile Home Park	427	Groundwater	None
Currituck Club Water Company	869	Groundwater	MCL average for trihalomethanes (2005, 2006)
Currituck County Water System	12,494	Groundwater	MCL average for trihalomethanes (2008)
Ocean Sands Development	2,449	Purchased groundwater	MCL average for trihalomethanes (2004, 2005)
Pine Island Utilities	744	Groundwater	MCL average for trihalomethanes (2004, 2005); MCL acute TCR for Coliforms (2003)
Ponderosa Mobile Home Park	300	Groundwater	MCL monthly TCR for Coliforms (2002)
Sandy Point Resort and Campground	559	Groundwater	MCL monthly TCR for Coliforms (2002, 2005)
Southern Outer Banks Water System	5,357	Groundwater	MCL average for trihalomethanes (2004, 2005)
Total	**23,199**		
Non-Transient, Non-Community Water Systems			
Knott's Island Elementary School	125	Groundwater	OCCT Study Recommendation for Lead and Copper Rule
Total	**125**		
Transient, Non-Community Water Systems			
Bay Villa Restaurant	30	Groundwater	MCL monthly TCR for Coliforms (2011)
Bell's Island Campground	160	Groundwater	None
Carova Park	250	Groundwater	None
Currituck County Rural Center	25	Groundwater	None
Dawn's Kitchen Gourmet to Go	25	Groundwater	None
Duck Thru No. 25	250	Groundwater	None
Hollyridge Golf	100	Groundwater	None
Knotts Island Senior Center	25	Groundwater	None
Knotts Island United Methodist Church	30	Groundwater	None
Knott's Island Baptist Church	125	Groundwater	MCL acute TCR for Coliforms (2002); MCL monthly TCR for Coliforms (2002)
Knott's Island Ferry Operations	50	Groundwater	None
Knott's Island Market	200	Groundwater	MCL monthly TCR for Coliforms (2010)
OBX Vacation Station	50	Groundwater	None
Pointe Golf Course	75	Groundwater	None
Powell's Point Christian Church	150	Groundwater	None
Wiseguys Pies	70	Groundwater	None
Total	**1,615**		

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

Currituck County Water Department

The Currituck County Water Department services over 4,800 active accounts, and by EPA estimates serves 12,494 people. The county water system is self-supporting and uses no tax dollars in its operating funds.

The Currituck County Water System produces and delivers potable water for County residents; installs new water services and meters for individual property owners; maintains and repairs County-owned water mains, service lines, and metering equipment; reads meters for billing; calculates, produces, mails, and collects bills for water and sewer services; tests private well water; and locates water lines for customers who are digging. The department does *not* install supply lines from meters to dwellings or buildings, diagnose or repair customer plumbing problems, or advise customers on well or septic tank/field placement (78).

The original 1.4-million-gallon-per-day Green Sand Filter Treatment Plant draws water from twenty-eight shallow wells that are supplied from the Yorktown Aquifer and the Upper Tertiary Aquifer. In 2009 a 1.5-million-gallon-per-day Reverse Osmosis Plant came online, drawing water from three deep wells located in the Yorktown Aquifer. Combined, the county's water treatment facilities can provide 2.9 million gallons of clean drinking water every day (79).

Mainland Water Department. The Mainland Water Department serves properties on the Currituck County mainland only. Consideration of a countywide water system for the residents of Currituck County began in the early 1970's. Feasibility studies were submitted in 1973 and again in 1982.

Construction began in 1988. Water distribution line construction was scheduled in several phases. Phase I, serving residents from Moyock south to Grandy and west to Shawboro and Gregory, was completed in September 1989. Consumers were able to tap into the system and begin using water in November 1989.

Phase II of the water system expansion began in 1999 and was completed in 2001, providing service to residents along US Highway 158 from Grandy to Point Harbor. At this time, only those properties bordering US Highway 158 are eligible for water service in Phase II.

The system has a storage capacity of 1.9 million gallons. There are five elevated storage tanks: Moyock (100,000 gallons), High Cotton (500,000) Currituck (300,000 gallons), Grandy (100,000 gallons), and Currituck Industrial Park (300,000) (80).

Southern Outer Banks Water System. The Southern Outer Banks Water System (SOBWS) serves the potable water needs of several communities on the Currituck Outer Banks. These communities include:

- The Villages at Ocean Hill
- Ocean Hill Section 1
- Corolla Village area
- Whalehead Beach
- Ocean Sands Water/Sewer District (OSWSD)
- Ocean Sands Sections A, B and C
- Spindrift
- Corolla Light
- Currituck Club
- Monteray Shores
- Pine Island

Private Wells

The On-site Water Protection program of the ARHS/Currituck 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 212 summarizes ARHS/Currituck County Health Department activities related to wells and well testing for 2008 through 2010 as catalogued by the state's Environmental Health Section.

Table 212. Currituck County Health Department On-Site Water Protection Activities: Well Water
FY2008 through FY2010

Activity	2008	2009	2010
Well Sites Evaluated	N/A	128	119
Well Site Consultative Visits	N/A	N/A	N/A
Well Construction Permits Issued			
New	39	53	39
Repair	27	58	80
Bacteriological Samples Collected	N/A	84	119
Other Samples Collected	N/A	73	119

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

Although there is no large municipal wastewater facility in Currituck County there are several smaller wastewater entities that serve regions or residential developments within the county (81).

Municipal Wastewater Systems

Moyock Commons Sewer District

The Moyock Commons Sewer District was created to provide wastewater service to the following commercial areas:

- Moyock Commons Subdivision
- Currituck Commercial Center Subdivision
- Romm Business Center

The Moyock Commons wastewater facility is operated by Currituck County. The Currituck County Water Department administrative office provides billing and administrative services for the District.

Newtown Road Wastewater Treatment District

The Newtown Community Wastewater Collection and Treatment District (Water and Sewer District) was created by a resolution adopted by the Currituck County Board of Commissioners on February 3, 1992 in order to alleviate the public health nuisance created by the failure of individual septic systems and the resulting drainage of that overflow into open ditches within the district.

In general, properties on Newtown Road and Richard Shaw Road may be serviced by the District.

System operations, maintenance, billing and administrative services are provided by the Currituck County Water Department. Public water service within the District is provided by the Currituck County Water Department.

Ocean Sands Water/Sewer District

The Currituck County Water Department administrative office provides billing and administrative services for the Ocean Sands Water/Sewer District. The sewer treatment facilities are operated by Enviro-Tech under contract with Currituck County. Areas served include:

- Ocean Sands subdivision, in the following sections: D, E, F, H, I, J, K, L, M, N, O, P, Q
- Crown Point

Walnut Island Sewer District

On November 1, 2011, the County of Currituck acquired ownership of the Walnut Island Sanitary District.

On-Site Wastewater

The ARHS/Currituck 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 213 summarizes ARHS/Currituck County Health Department activities related to septic systems for 2008 through 2010 as catalogued by the state's On-Site Water Protection Branch.

Table 213. Currituck 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)	310	258	182
Operation Permits Issued	174	123	157
Improvement Permits Issued - Repair or replace malfunctioning system	3	N/A	N/A
Construction Authorizations			
New, Revision or Relocation	153	118	100
Repair/Replacement of Malfunctioning System	17	25	17
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 214 lists the NPDES-permitted dischargers in Currituck County and the destinations and permitted volumes of their discharges. Both permitted dischargers are municipal water treatment plants.

Table 214. National Pollutant Discharge Elimination System (NPDES) Permitted Dischargers, Currituck County (November, 2012)

Owner	Facility	Type	Discharge Destination	Permitted Flow (Gal/Day)
Currituck County	Mainland WTP	Water Treatment Plant	North River	1,670,000
Currituck County	Southern Outer Banks Water System WTP	Water Treatment Plant	Atlantic Ocean	600,000

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

- In FY2010-11, Currituck County managed 22,944 tons of municipal solid waste (MSW) for a rate of 0.97 tons per capita. This figure represented a decrease of 3% from the per capita rate for FY1991-92 (the period customarily used for the base rate).
- During the same FY2010-11 period the overall state per capita solid waste management rate was 8% less than the FY1991-92 base per capita rate.
- The per capita rate in Pamlico County decreased 4% between the base year and FY2010-11.

Table 215. Solid Waste Disposal
FY2006-07 through FY2010-11

Location	MSW Tons Managed 1991-1992	MSW Tons Disposed					Base Year Per Capita (1991-1992)	Per Capita Rate 2010-2011	% Change Base Year to 2010-2011
		2006-07	2007-08	2008-09	2009-2010	2010-2011			
Currituck County	13,792.48	31,288.16	36,495.69	24,769.20	22,564.59	22,944.32	1.00	0.97	-3
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 216 presents the FY2010-11 County Waste Disposal Report for Currituck County.

- Almost all of Currituck County's solid waste is transferred to or transported directly to landfills *outside* the county.

Table 216. County Waste Disposal Report, Currituck County
(FY2010-11)

Location	Facility Name	Facility Type	Tons Received	Tons Transferred
Currituck County	Waterway Recycling, LLC	CD TP	2,223.68	2,223.68
	Soundside Recycling & Materials, Inc.	Materials Recovery TP	1,758.17	1,644.86
	East Carolina Regional Landfill	Municipal Solid Waste Landfill	22,619.48	0.00
	Atlantic Waste Disposal, Inc. (VA)	Municipal Solid Waste Landfill	2,260.48	0.00
	John C. Holland Enterprises	Municipal Solid Waste Landfill	414.48	0.00
	Currituck Transfer Station	Municipal Solid Waste Transfer Station	21,696.13	21,696.13

Source: NC Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section. Solid Waste Management Annual Reports, FY2010-2011; County Waste Disposal Report Fiscal Year 2010-2011. http://portal.ncdenr.org/c/document_library/get_file?p_l_id=4649434&folderId=4667253&name=DLFE-38490.pdf.

Municipal Solid Waste Management

Solid waste management in Currituck County is the responsibility of Albemarle Regional Solid Waste Management Authority (ARSWMA), a subsidiary of Albemarle Regional Health Services.

ARSWMA is a county-level legal entity serving the Counties of Perquimans, Chowan, Gates, Dare, Currituck, Hyde, and Tyrrell. This area currently has approximately 107,000 permanent residents and several hundred thousand visitors each year. Through a 26-year contract signed in 2009 with Republic Services of NC, LLC, the Authority aims to provide cost-effective and efficient solid waste disposal for the region.

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

Currituck County Recycling Program

Currituck County has eight manned Recycling Centers for residential solid waste collection and recycling. Each Recycling Center has the capability to recycle many products (82).

Manned Convenience Center Locations

- Knotts Island - 180 Knotts Island Rd. (SR 1255)
- Moyock - 101 Panther Landing Rd. (SR 1231)
- Shawboro (Swap Shop location) - 426 Shawboro Rd. (NC 34)
- Barco - 183 Shortcut Rd. (US 158)
- Grandy - 6815 Caratoke Hwy. (US 158)
- Powells Point - 309 N. Spot Rd. (SR 1113)
- Gibbs Woods - 132 Reeds Rd. (SR 1250)
- Carova Beach - 2030 Ocean Pearl Rd.

Special Materials Recycling

Oyster Shells will be accepted at the Moyock and Barco recycling centers for the NC Division of Marine Fisheries oyster bed re-seeding program.

Currituck County's Barco site accepts electronics during normal hours of operation. Collection Sites for electronics recycling have also been established at the Knotts Island Recycling Center and the Corolla Library. Electronics recycling includes: computer equipment, fax machines, scanners, computer peripherals, televisions, and UPS backup systems.

Dry cell batteries (AAA, AA, C, D, 9-volt) are now collected for recycling at all centers as are CFL (compact fluorescent lamps). These items must be properly disposed of in designated collection containers.

A Cooking Oil recycling container is now located at each recycling center.

Salvation Army Drop boxes are located at many of the centers for charitable donations.

Hazardous Waste Generation

The EPA maintains a database that catalogs generators, transporters, and other handlers of hazardous wastes. The data, located in the Resource Conservation and Recovery Act Information (RCRAInfo) database, is accessed via EPA Envirofacts. Table 217 lists the hazardous waste generators in Currituck County, each of which generates a small quantity of hazardous waste.

Table 217. Hazardous Waste Generators, Currituck County (Accessed April, 2013)

Location	Generator Name	Location	Type of Business (NAICS Code/Description)	Type of Generator
Currituck County	Currituck County Schools Maintenance	Currituck	Not provided	Small Quantity
	XE Services/US Training Center	Moyock	Technical/Trade School	Small Quantity

Source: US EPA, Envirofacts, RCRAInfo, Search; http://www.epa.gov/enviro/facts/rcrainfo/search.html.

LEAD

Lead is a highly toxic natural metal found in the environment in soil, dust, air, and water. Historically it was used for many years in common household products such as paint, batteries, makeup, and ceramics, as an additive to gasoline, and as an ingredient in pesticides. Currently, it is used in lead-acid batteries, fishing weights, marine paint, lead shot, bullets, and in the manufacture of some plastics. Recently, the electronics industry is using more lead in magnetic imaging equipment, transistors, night vision equipment, and energy generation (83).

People can get lead in their body if they put their hands or other objects covered with lead dust in their mouths, ingest paint chips, soil, or water that contains lead, or breathe in lead dust, especially during renovations that disturb painted surfaces. Children are at greatest risk.

The Children's Environmental Health Branch of DENR, via its Lead Poisoning Prevention Program, catalogues data on the results of blood lead level monitoring among children. Table 218 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 218. 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
Currituck County	2006	521	214	41.1	**2**	**0.9**	309	**2**	N/A
	2007	498	183	36.7	**1**	**0.5**	257	N/A	N/A
	2008	511	180	35.2	**2**	**1.1**	254	N/A	N/A
	2009	489	162	33.1	N/A	**0.0**	246	N/A	N/A
	2010	448	188	42.0	**1**	**0.5**	270	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 Currituck County residents presented at the emergency departments of the four hospitals in the region.

Table 219 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 219. Food-, Water-, and Vector-Borne Diseases, North Carolina (2009-2012)

Disease/Organism	Number of Cases			
	2009	2010	2011	2012[1]
Campylobacter infection	587	851	909	857
Cryptosporidiosis	160	94	115	88
E. Coli O157:H7 (or other STEC)	112	97	155	79
Ehrlichiosis	31	130	96	99
Encephalitis California Group (Lacrosse)	169	22	24	18
Hepatitis A	41	48	30	20
Listeriosis	27	22	21	9
Lyme Disease	252	89	75	71
Rocky Mountain Spotted Fever	325	292	305	431
Salmonellosis	1,806	2,352	2,516	1,612
Shigellosis	358	253	225	104

[1] 2012 data includes January-September 2012 only
Source: NC DHHS, Epidemiology Branch, Communicable Disease Section, Facts and Figures, NC Communicable Disease Reports, 2009, 2010, 2011, 2012; http://epi.publichealth.nc.gov/cd/figures.html.

Vector Control

Bacterial, viral and parasitic diseases that are transmitted by mosquitoes, ticks and fleas are collectively called *vector-borne diseases* (the insects and arthropods are the *vectors* that carry the diseases). Although the term vector can also apply to other carriers of disease—such as mammals that can transmit rabies or rodents that can transmit Hantavirus—those diseases are generally called *zoonotic* (animal-borne) diseases.

The most common vector-borne diseases found in North Carolina are carried by ticks and mosquitoes. The tick-borne illnesses most often seen in the state are Rocky Mountain Spotted Fever, ehrlichiosis, Lyme disease and Southern Tick-Associated Rash Illness (STARI). The most frequent mosquito-borne illnesses, or "arboviruses," in North Carolina include LaCrosse encephalitis, West Nile virus and Eastern equine encephalitis (84).

One way to prevent or limit the transmission of vector-borne illnesses is to control the vectors of the disease. In the case of mosquitoes, that is usually accomplished by improving cultural practices (e.g., emptying temporary water reservoirs like puddles, flowerpots and bird feeders or by people covering their skin or applying insect repellent when outdoors). In extreme cases, communities may sometimes resort to large-scale aerial spraying to destroy the insect or interfere with its reproductive cycle. Spraying initiatives can be controversial, however, since the typically broadcast application of the pesticide is non-selective and can affect humans and pets.

Rabies, a vector-borne disease, can be controlled among pets by having dogs and cats properly vaccinated. While pets can be protected that way, there is no practical way to control rabies in the wild, where it actually is more common. Table 220 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 220. Animal Rabies Cases, ARHS Counties (2005-2012)

Location	Total Number of Animal Rabies Cases							
	2005	2006	2007	2008	2009	2010	2011	2012
Bertie County	0	0	0	0	2	1	0	1
Camden County	0	0	1	0	0	0	0	0
Chowan County	0	0	0	0	1	3	0	0
Currituck County	0	0	1	2	1	0	0	0
Gates County	1	2	0	2	0	0	0	1
Pasquotank County	1	0	1	2	5	3	0	0
Perquimans County	1	3	0	1	1	3	0	0
Regional Total	*3*	*5*	*3*	*7*	*10*	*10*	*0*	*2*

Source: NC Division of Public Health, Epidemiology. Rabies. Facts and Figures. Rabies by County, Tables by Year. http://epi.publichealth.nc.gov/cd/rabies/figures.html.

Animal Control in Currituck County

The Currituck County Animal Control Office handles all aspects of domesticated animal safety and welfare concerns. The office is responsible for protecting the rights of animals in the community to ensure proper care and accommodations are provided. The Animal Control Officers enforce the animal ordinances as mandated by the Currituck County Ordinances and the North Carolina General Statutes.

The Currituck Animal Control Office, a division of the Currituck Sheriff's Office, is located in the quarantine building. The office is not regularly manned, so calls for assistance are routed through Currituck Communications for dispatch.

The Animal Control Officers respond to emergency as well as routine calls for assistance concerning the animals in the County. The Animal Control Officers investigate reports of animal bites and quarantine the animal if necessary. They investigate cruelty and neglect reports as well as enforce the countywide leash law. They do not issue dog tags, handle adoption of pets, process the release of picked-up animals, pick up/remove deceased animals from roadways, or capture or remove wild or non-domestic animals (85).

Animal Shelters Serving Currituck County

The Animal Lovers Assistance League operates the local Animal Shelter in Maple, NC.

The Currituck County Commissioners granted the Animal Lovers Assistance League a contract to operate the Currituck County Animal Shelter beginning on July 1st, 2005. A 501(c)(3) organization, the League has made improvements in the shelter and forged partnerships with other shelters and rescue groups in the Hampton Roads area. The group also began a Veterinary program to provide disease testing for dogs and cats as well as heartworm treatment and prevention for dogs. It expanded the hours the shelter is open to the public, adding late afternoon hours so that hours of operation are more closely aligned with prospective adoptive families, and offered on-line adoption application. It also sponsors a foster care program that effectively extends the capacity of the shelter (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 221 presents data on the availability of grocery stores.

- The number of grocery stores in Currituck County remained the same (9) between 2007 and 2009.
- Approximately 186 Currituck County households (~2%) have no car and therefore low access to grocery stores.

Table 221. 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 222 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 Currituck County.

Table 222. 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 223 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.
- Currituck County had 24 fast food restaurants in 2007 and 22 in 2009.

Table 223. 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 224 presents data on the availability of recreational and fitness facilities.

- There were three recreation/fitness facilities in Currituck County in 2007 and two in 2009. A more recent listing of recreational facilities was provided earlier in this document.

Table 224. 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.

CHAPTER SEVEN: ISSUES PRIORITIZATION

PRIORITIES SELECTION

On September 20, 2013, the Healthy Carolinians of the Albemarle (HCOTA) Partnership met to identify the leading community health problems for Pasquotank, Perquimans, Camden, and Currituck Counties. Data gathered from the community surveys, stakeholder surveys, and secondary data were presented and discussed.

In attendance were: Amy Underhill, Holly Cook-Wood, Juanita Johnson, Susan Norton, Ashley Miller, Dana Hamill, Pam Hurdle, Yvonne Mullen, Kay Cooper, Dr. Spellman, Barbara Courtney, and Amanda Betts.

A PowerPoint presentation highlighting the strengths and weaknesses from the secondary data and information from the primary survey and stakeholder survey for each of the Healthy Carolinians of the Albemarle counties was shared with the group by Amy Underhill, chair of HCOTA. After the data presentation a roundtable discussion was facilitated among the group to identify service gaps, educational needs, and awareness issues within the four counties. Participants were then asked to use the list that was developed to anonymously vote for their top three to five priority areas. The priority areas with the most votes were as follows:

Priority Areas

Obesity – Unhealthy eating and lack of physical activity.
Chronic Disease including heart disease, stroke, cancer, and diabetes – identification and management.
Personal accountability – making health a priority in one's life, self-responsibility, taking advantage of health programs, making healthier life style choices.
Educational and resource communication regarding services and programs within the four counties – marketing, resource development, community collaboration especially with the faith and church community.
Program funding.

NEXT STEPS

The next step Healthy Carolinians of the Albemarle plans to take is the development of the community action plans which are due in June 2014. The Action Plans will reflect the priority health issues, strategies, and steps to implement change along with our target populations, and resource networking with the various community partners. This is a critical component that the partnership must take in selecting activities that are reasonable and relatively easy to implement and align with the 2020 Healthy People Objectives in Pasquotank, Perquimans, Camden, and Currituck Counites. Healthy Carolinians of the Albemalre Partnership members will utilize the information gathered during the community assessment process and the prioritization process to clearly define our community's health priorities, actions, and expected results. Healthy Carolinians of the Albemarle will meet on January 17, 2014 to begin this process. Partnership meetings will take place the third Friday each month throughout this process. All partnership members as well as the Steering Committee will be involved in completing new or revised action plans based on the prioritization of health needs. The completed action plans will include a description of each health issue/problem and will specify the proposed actions and community

organizations that will provide and coordinate the intervention activities. The action plans will be developed after carefully considering all the factors that cause and perpetuate the problem they address. The plans will also identify how progress towards the outcome will be measured.

DISSEMINATION PLAN

Sheila Pfaender, Public Health Consultant presented the results of the CHA findings in: Currituck and Camden Counties on August 19th at Currituck Cooperative Extension Agency, Pasquotank County on August 20th at Pasquotank County Health Department, and Perquimans County on August 21st at the Albemarle Commission Building. The public was notified and invited to attend all of the events via local newspapers and Albemarle Regional Health Services' (ARHS) website and Facebook page. The CHA documents are available for review and/or download on ARHS' website at www.arhs-nc.org. The CHA Leaders Team, as well as all community members involved with this CHA process did receive an invitation to the CHA presentations via e-mail and were notified that the documents are available on-line, and the link was included.

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2013 COMMUNITY HEALTH SURVEY

ALBEMARLE REGIONAL HEALTH SERVICES
Partners in Public Health

Currituck County

Hello, I am _____ and this is _____ representing the Currituck 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 Currituck County, North Carolina. The Currituck 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 Currituck 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:

- *Currituck Health Dept. → 252-232-2271*

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

- *Currituck County Sheriff's Office → 252-453-8204*

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 Currituck 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 Currituck 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 Currituck County.** (Think about health care options, access, cost, availability, quality, etc.)	**9.1%**	**30.1%**	**44.3%**	**2.9%**
Question 2 **Currituck 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.)	**6.2%**	**3.3%**	**40.6%**	**50.0%**
Question 3 **Currituck 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.)	**5.2%**	**12.3%**	**49.1%**	**31.1%**
Question 4 **There are plenty of ways to earn a living in Currituck County.** (Think about job options and quality of jobs, job training/higher education opportunities, etc.)	**29.9%**	**40.1%**	**20.2%**	**5.9%**
Question 5 **Currituck County is a safe place to live.** (Think about safety at home, in the workplace, in schools, at playgrounds, parks, shopping centers, etc.)	**2.5%**	**4.2%**	**48.1%**	**45.2%**
Question 6 **There is plenty of support for individuals and families during times of stress and need in Currituck County.** (Examples include neighbors, support groups, faith community outreach, agencies, organizations, etc.)	**5.1%**	**12.8%**	**54.3%**	**21.1%**
Question 7 **Currituck County has clean air.**	**2.0%**	**3.4%**	**42.7%**	**52.0%**
Question 8 **Currituck County has clean water.**	**5.1%**	**6.1%**	**56.8%**	**25.5%**

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 Currituck 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 Currituck 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 Currituck 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 Currituck 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 Currituck 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: **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.)

45.4% Health insurance *my* employer provides
24.8% Health insurance *my spouse's* employer provides
0% Health insurance *my school* provides
0.6% Health insurance *my parent or my parent's* employer provides
8.6% Health insurance I bought for myself
1.4% Medicaid
28.4% Medicare
14.3% Veteran's Administration benefits
0.7% Other: _____

12.0% I currently do not have any kind of health insurance or health care coverage
0% 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?

12.2% Yes **86.9%** No 1.0% No Response

Question 16

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

92.4%	Doctor's office	0%	Company nurse
4.2%	Health department	0%	Community or Rural Health Center
7.4%	Hospital clinic	20.6%	Urgent Care Center
12.7%	Hospital emergency room	0.2%	Other: _____
0%	Student Health Services	0.2%	Cardiologists or Heart Specialist
0.6%	No Response		

Question 17

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

0%	Ahoskie	0%	Franklin	0%	Suffolk
35.3%	Chesapeake	0%	Gatesville	20.1%	Virginia Beach
20.1%	Dare County	0%	Greenville	0%	Williamston
0.6%	Edenton	0%	Hertford	0%	Windsor
25.5%	Elizabeth City	17.4%	Norfolk	32.4%	Other: _____
0.5%	Barco	17.1%	Currituck	1.0%	Grandy
4.7%	Hampton	9.0%	Moyock	0%	No Response

Question 18

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

79.1%	Doctor's office	10.0%	Urgent Care Center
3.4%	Health department	17.2%	Family
4.2%	Hospital clinic	15.1%	Friends
6.2%	Hospital emergency room	7.1%	Media (television, news, radio, magazine)
0.5%	Student Health Services	29.4%	Internet or other computer-based info
2.5%	Company nurse	2.3%	Other: _____
0.5%	Community or Rural Health Center		
2.3%	Work	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.***

80.9% Within the past 12 months
7.5% 1-2 years ago
8.6% 3-5 years ago
1.5% More than 5 years ago
0.6% I have never had a routine or "well" medical checkup
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.***

61.7% Within the past 12 months
17.0% 1-2 years ago
6.5% 3-5 years ago
12.6% More than 5 years ago
0% I have never had a routine or "well" dental checkup
1.2% 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.)

2.6% Children's Developmental Services Agency/Developmental Evaluation Center
18.0% Counselor or Therapist in private practice
21.5% Doctor
0% Emergency Room
5.1% Employee Assistance Program
13.4% Local Mental Health Facility
11.1% Minister/Pastor
0.5% School Counselor
0% Vocational Rehabilitation/Independent Living
22.7% I don't know
3.7% Other: _____
0.4% No Response

Question 22

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

13.5% High **51.2%** Moderate 33.8% Low 0.4% 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?

8.5% Always 15.0% Usually 15.2% Sometimes 17.6% Rarely **40.0%** Never

Question 24

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

26.4%	None	0%	5 days
9.9%	1 day	0%	6 days
11.7%	2 days	6.9%	7 days
5.3%	3 days	**36.2%**	I never drink alcohol
2.7%	4 days	0%	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?

30.1%	None	0%	4 times
4.0%	1 time	0%	5 times
0%	2 times	0%	7 times
0%	3 times	2.4%	No Response

Question 26

Do you smoke cigarettes?

13.0% Yes
53.3% I have never smoked cigarettes
29.0% I used to smoke but have quit
3.7% No Response

Question 27

How many cigarettes do you smoke per day? *(Choose only one answer.)*

3.5% Less than half a pack per day
8.4% Between half a pack and one (1) pack per day
0.6% One (1) pack a day
1.2% More than one (1) pack a day
0.6% Two (2) packs a day
1.2% No Response

Question 28

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

17.6% Yes **79.1%** No 2.4% No Response

Question 29

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

4.5%	Public Places	3.9%	Car
11.4%	Home	0%	Hospital
0.4%	Workplaces	0%	School (public, community college, university)
0.4%	Other: _____		
0%	No Response		

Question 30

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

83.7% Not at all 6.0% On some days 5.3% Every day 1.0%No Response

Question 31

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

67.0% Yes 29.2% No 2.9% 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?

18.2% None
3.1% Less than once a week
16.0% Once a week
28.1% 2-3 times a week
11.9% 4-6 times a week
21.7% Daily

Question 33

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

0.4% My job is physical or hard labor
1.7% I don't have enough time for physical activity
7.0% I'm too tired for physical activity
4.8% 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)
1.9% 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.)

43.3% Park/Playground
20.8% School
30.8% Church
36.0% Community Center
21.7% Senior Center
37.7% Parks & Recreation Facility
48.7% Gyms
40.0% Walking Trail
38.0% Nature Trail
35.1% Bike Trail
14.3% Canoeing
16.8% Kayaking
30.7% Walkable Communities – i.e. areas measured, deemed safe to walk, etc.
2.0% No Response

Question 35

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

25.0% Yes **70.1%** No 4.0% No Response

Question 36

How often do you visit county parks and recreation facilities?

4.7% Daily
16.1% Weekly
12.9% Monthly
19.8% Occasionally
24.9% Rarely
20.5% 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
1.0% No bathrooms
0% Unclean
0.4% Unsafe
0.5% No drinking fountains
0.5% Not handicap accessible
0% Lack of shade
0% Lack of children's play equipment
2.4% Lack of fields or courts for sports
0.2% Lack of walking paths/tracks

0.6% Lack of biking paths
0% Lack of trashcans/pet waste disposal
3.7% Lack of transportation
6.1% Cost
33.8% Nothing offered of interest to me
20.8% Other: _____
9.1% No Response

Question 38

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

6.8%	None	0%	5 servings
52.8%	1 serving	0%	6 servings
22.6%	2 servings	0%	7 servings
9.4%	3 servings	2.3%	Don't Know
5.1%	4 servings	0%	No Response

Question 39

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

2.4%	None	0%	5 servings
31.9%	1 serving	2.3%	6 servings
35.4%	2 servings	0%	8 servings
24.1%	3 servings	0%	Don't Know
3.0%	4 servings	0%	No Response

Question 40

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

87.4% Yes 9.2% No 2.4% No Response

Question 41

Are fresh fruits and vegetables readily available at these stores?

85.1% Yes 2.3% No 0% Don't Know 0% No Response

Question 42

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

84.0% Yes 10.0% No 2.6 Don't Know 2.4%No Response

Question 43

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

4.2% Daily
38.1% Weekly
15.4% Monthly
9.8% Occasionally

11.4% Rarely
5.0% Never
0% No Response

Question44

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

0% Lack of transportation
20.3% Too expensive
0% I do not eat fruits and vegetables
0.4% I do not know the locations and hours of operation
3.6% I am working during hours of operation
0% Does not accept EBT or WIC
6.3% I have my own garden
4.6% Other: _____
5.0% Illness/sickness
3.3% No Response

Question 45

On average, how many meals a week do you eat out? Mean: **2.9** 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	6.4%	Yes	**93.6%**	No
Depression	10.0%	Yes	**90.0%**	No
Diabetes	6.8%	Yes	**93.2%**	No
High blood pressure	38.5%	Yes	**61.5%**	No
High cholesterol	28.9%	Yes	**71.1%**	No
Mental Illness	0%	Yes	**100%**	No
Overweight/obesity	36.3%	Yes	**63.7%**	No
Heart Disease	19.1%	Yes	**80.9%**	No
Cancer	7.3%	Yes	**92.7%**	No

Question 47

What year were you born? Mean Age: **52.9**

Age Groups:

0%	<=18	**26.5%**	>58-68
9.0%	>18-28	14.0%	>68-78
10.1%	>28-38	1.1%	>78-88
24.9%	>38-48	0%	>88-98
14.4%	>48-58		

Question 48

Are you male or female? 41.6% Male **57.4%** Female

MEN'S HEALTH QUESTIONS. Answer the following two questions only if you are a man age 40 or older. *(If you are a man, but younger than age 40, skip to question 59. If you are a woman, skip to question 52.)*

Question 49

Do you get an annual prostate exam?

16.6% Yes 14.5% No 1.6% 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.)*

2.4% 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.)
4.8% Instructed by a health professional that an annual prostate exam was not necessary
0% Other reason

Question 51

How long has it been since your last prostate exam?

14.3% Within the past 12 months
5.5% 1-2 years ago
1.6% 3-5 years ago
6.2% More than 5 years ago
0% I don't know/don't remember
0.6% I have never had a prostate exam
1.6% 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?

36.0% Yes 11.7% No 6.6% 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)
1.7% Cost (Too expensive or provider wouldn't accept my insurance)
1.2% 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.)
4.7% Instructed by a health professional that an annual mammogram was not necessary
1.3% Other reason
0.8% Don't know
2.1% No Response

Question 54

How long has it been since your last mammogram?

30.7% Within the past 12 months
4.9% 1-2 years ago
3.4% 3-5 years ago
4.9% More than 5 years ago
0% I don't know/don't remember
7.9% I have never had a mammogram
2.4% No Response

Question 55

Do you get a Pap test at least every 1-3 years? **48.4%** Yes 8.9% No

Question 56

If you answered no to Q 55, why don't you get a pap test at least every 1-3 years?
(Choose only one answer.)

0% Lack of Information (Didn't know about/Couldn't locate information about it)
1.2% 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.)
3.5% Instructed by a health professional that a pap test every 1-3 years was not necessary
3.7% Other reason

Question 57
How long has it been since your last Pap test?

22.3% Within the past 12 months
23.2% 1-2 years ago
8.6% 3-5 years ago
2.3% More than 5 years ago
0% I don't know/don't remember
0% I have never had a pap test
1.0% 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?

38.4% Yes 16.1% No 0% Under age 50 2.4% 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.)

23.3% Yes **71.8%** No 3.9% 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.)*

8.7% Nutrition	1.4% Gang violence
6.3% Physical Activity	8.1% Reckless driving/speeding
5.7% Sex	4.3% Eating disorder (e.g. anorexia or bulimia)
0.5% Tobacco	0.5% Mental Health issues (depression, anxiety)
4.2% Asthma Mgmt	3.9% Suicide Prevention
5.2% Diabetes Mgmt	4.9% Substance Abuse (alcohol/drugs)
2.9% Overweight/Obesity	4.4% STDs including HIV
9.5% First Aid/CPR	0% Other: _____

6.2% My child does not need information on any of the above topics

PART 6: Emergency Preparedness
The next seven questions ask about how prepared you and your household are for an emergency.

Question 61
Does your household have working smoke and carbon monoxide detectors?
(Choose only one answer.)

48.9% Yes, smoke detectors only 0.4% Yes, carbon monoxide detectors only

40.6% Yes, both 9.1% No
1.0% No Response

Question 62
Does your household have a Family Emergency Plan?

53.3% Yes 42.1% No 1.0% 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?

8.8% Yes **87.8%** No 2.4% 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.

27.9% No 27.1% 3 days **33.7%** 1 Week 4.2% 2 weeks 6.1% More than 2 weeks
0% Don't Know 1.0% No Response

Question 65
What would be your main way of getting information from authorities in a large-scale disaster or emergency?

36.6% Television
44.8%Radio
5.3%Internet
0% Print media (ex: newspaper)
3.5% Social networking site (i.e. Facebook)
2.0% Neighbors
0.4% County Reverse 911/Emergency Alert Phone System
3.7% Text message (emergency alert system)
0.5% Other: _____
0% Don't know
2.4% No response

Question 66
If public authorities announced a mandatory evacuation from your neighborhood or community due to a large-scale disaster or emergency, would you evacuate?

63.7% Yes 7.9% No 25.5% Don't know 2.0% No Response

Question 67
What would be the main reason you might not evacuate if asked to do so?
(Choose only one answer.)

0% Lack of transportation
0.6% Lack of trust in public officials
23.7% Concern about leaving property behind
1.2% Concern about personal safety

0.8% Concern about family safety
13.1% Concern about leaving pets
4.7% Concern about traffic jams and inability to get out
5.3% Can't afford to evacuate (gas, hotel stay, eating out)
18.7% Other: _____
14.0% Don't know
14.2% 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 Currituck County? 29.6% Yes **69.44%** No

Question 69

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

7.9% African American/Black
0% Asian/Pacific Islander
3.7% Hispanic/Latino
84.8% Caucasian/White
0.2% Native American
2.4% Other: ___
0% No Response

Question 70

What is your marital status?

68.3% Married
11.4% Widowed
1.6% Separated
9.7% Divorced
8.0% Never married
0% Other: _____

Question 71

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

0% Less than 9th grade
6.6% 9th-12th grade, no diploma
18.7% High school graduate (or GED/equivalent)
13.3% Associate's Degree or Vocational Training
23.4% Some college (no degree)
30.8% Bachelor's degree
6.1% Graduate or professional degree
0.0% Other: _____

Question 72

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

42.0% Employed full-time
3.8% Employed part-time
3.9% Unemployed
42.9% Retired
3.4% Disabled; unable to work
0.6% Student
3.2% Homemaker
0.0% 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*.)

4.7% Less than $20,000
8.0% $20,000 to $29,999
21.0% $30,000 to $49,999
21.5% $50,000 to $74,999
21.8% $75,000 to $100,000
7.3% Over $100,000
11.1% No Response
3.7% Don't Know

Question 74

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

Question 75

Do you have access to the internet?

87.6% Yes 11.4% No 0.0% No Response 0% Don't know/not sure

THE END!

Thank you very much for completing the Community Health Survey!

Currituck 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 17 stakeholders and five 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 advise on landscaping, plants, pests and pathogens; serving homeowners of all ages, gender, race, and income

- Provides lunch 5 days a week and meals to our shut-ins, health-related programs, social activities and trips, tax service for low to middle income at no charge, a phone call to shut-ins at a certain time a day to check on them to make sure they are ok; serving anybody that is 55 years of age or older, more females than males, and all levels of income
- 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.

- The composition of people seeking emergency food has grown by 48% over the past five years due to the poor economic climate.

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

- Lack of knowledge of what we do
- Transportation is a barrier for rural NENC residents followed by access. Emergency food programs tend to serve when people are traditionally working.
- Sometimes our services are limited due to the amount of funding we have. Sometimes people simply don't know about our services.

4. What does your agency do to try to meet the special needs of people who use your services (e.g. language/cultural issues, cost, transportation, etc.)?

- We offer free services and will go to the individuals homes if requested
- We offer transportation to our seniors through ICPTA at no charge to seniors that are 60 years or older. Have not had an issue with language or cultural issues.
- 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?

- We offer many free opportunities for training and general information.
- We have a variety of activities, health seminars, health screenings, and trips.
- We are always looking for opportunities to collaborate with community.

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

- We could offer more in the way of specific programs to address local landscape problems.
- Exercise programs, because we are connected to the YMCA and they offer a variety of exercise programs.
- We need a shelter for the homeless; we need job training services; we need a public transportation system that runs a specific route to major areas; we need a real farmers market to provide greater access to healthy fruits and vegetables
- More parenting; more services to support health and nutrition of young children; drop-in child care
- Shopping facilities: clothing and grocery

7. Overall, what would you consider to be the county's greatest strength?

- Strong involvement in the community and consideration of the needs of the various neighborhoods.
- Currituck County cares about their citizens.
- 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?

- Lack of funding; lack of communication with community
- The economy
- 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?

- Providing appropriate wellness opportunities in the county i.e. classes in health, welfare, physical fitness, vaccinations, dental, etc.
- Heart; diabetes; stroke; overweight

- In one 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?

- Lack of funding; appropriate facilities in the county; lack of communication
- Not living healthy; stress
- 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?

- Identification of these needs by county leaders and concerted effort to those goals by all available agencies
- Education and jobs
- More farmers markets
- More research

12. Please rate the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
There is a good healthcare system in the county	**2**	**1**		**2**	
The county is a good place to raise children.	**2**	**2**		**1**	
The county is a good place to grow old.	**2**	**2**	**1**		
There are plenty of ways to earn a living in the county.				**2**	**3**
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.		**2**		**3**	
The county has clean air.		**5**			
The county has clean water.		**4**	**1**		
Comments:					

Numbers represent the number of responses for each statement

13. Additional thoughts or comments:

- Our county has good leaders that look out for its citizens.
- Keep asking for feedback from the community