

2013

Macon County Community Health Improvement Plan



Macon County
Public Health



Highlands-Cashiers Hospital
& Fidelia Eckerd Living Center



ANGEL
MEDICAL CENTER

WNC **HEALTHY** IMPACT

2013 MACON COUNTY COMMUNITY HEALTH IMPROVEMENT PLAN (CHIP)

May 2013

ACKNOWLEDGEMENTS

This document was developed by Macon County Public Health, in partnership with Angel Medical Center and Highlands-Cashiers Hospital, as part of a community-wide action planning process.

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This CHIP format draws heavily on the work of the Wisconsin Association of Local Health Departments and Boards (WALHDAB), particularly their Template Implementation Plan, as well as actual examples from Bexar County, Texas. This product was also informed by many other organizations, which can be found in the [reference section](#) at the end of this document.

Our collaborative action planning process and community health improvement plan (CHIP) product were also supported by the technical assistance and tools available through our participation in WNC Healthy Impact, a partnership between hospitals and health departments in western North Carolina to improve community health. www.WNCHealthyImpact.com.

Please contact Dawn Wilde Burgess, Macon County Public Health, if you have any questions or would like to discuss more about how to get involved in moving forward the strategies outlined in this community health improvement plan (CHIP).

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Executive Summary

A Community Health Improvement Plan (CHIP) is a long-term, systematic effort to address health problems in a community based on results from a community health assessment. The plan recommends priorities for action and is used by health and other governmental, education, and social service agencies and organizations to implement policies and programs that promote health. It is a community-wide, collaborative strategic plan that sets priorities for health improvement and engages partners and organizations to develop, support and implement the plan. A CHIP is intended to serve as a vision for the health of a community and a framework for organizations to use in making that vision a reality.

The Community Health Improvement Plan reflects the understanding that the quality of the communities where we live, work, and play is as important to achieving good health as going to the doctor for regular checkups, proper nutrition, and adequate physical activity. There are many factors, or determinants, that affect health and have a tremendous influence on health outcomes. The physical environment, social and economic factors, and clinical care all play a part in an individual's health and are all incorporated into the plan.

Analysis of health, social and economic data as well as direct input from the community led to the identification of the top three threats to community health – obesity, cancer and access to care– and the selection of three priorities that will address these threats. The plan recommends strategies to improve health and well-being across the lifespan for all county residents. This is the community's plan, designed to be implemented by community agencies, partners and residents across the county.

Healthy Carolinians Task Forces were convened to develop the Community Health Improvement Plan for Macon County. Members of the groups represented different sectors of the community to contribute diverse points of view. The groups developed a vision of health for the community, values for the process, and identified three data-driven health priorities and action steps to be addressed in the plan.

These are not HCMC priorities alone. They are community priorities recommended to the entire community for consideration and action. It is hoped many community leaders and organizations will explore opportunities to work together and achieve the following for the benefit of Macon County.

Priorities:

1. Reduce the incidence of preventable chronic diseases related to obesity, particularly diabetes and heart disease.
2. Promote recruitment and retention of additional primary care physicians and dental practitioners serving Macon County residents.
3. Reduce the incidence and mortality rates of breast, colon, and lung cancer through prevention and early intervention efforts.

There are certainly other health issues and concerns that merit community attention, and these three priorities are not meant to be exclusive. The current assessment points to other areas of concern that merit attention in the county, but do not rank as primary concerns for 2012 to 2015. These secondary priorities include:

- End-of-Life Issues
- Access for Uninsured
- Suicide/Mental Health
- Smoking
- Youth and Family

Increased health education efforts were also identified as one of the top health needs in the community. The Community Needs Assessment subcommittee of Healthy Carolinians discussed naming health education as a priority area; however, decided that the need for increased health education efforts was a means to an end rather than a health priority in itself.

Many health providers and advocates within the community and within HCMC will continue to make progress in a variety of areas of interest: senior services, mental health care, family and children's issues, environmental concerns, transportation safety and more.

General Review of Data and Trends

The HCMC Comprehensive Health Assessment collected a variety of community perspectives from a series of focus groups, and also lengthy interviews with eight informed community leaders. Participants in the focus groups included the following:

- Representatives of the business community
- Senior citizens
- Representatives of the Latino community
- High school students (three groups)
- Residents of Highlands
- Medical community leaders

Those interviewed were:

- Dan Brigman, Superintendent, Macon County Schools
- Jim Bruckner, Director, Macon County Health Department
- Elena Carlson, Hispanics for Hispanics
- Commissioner Ron Haven
- Dr. Kit Helm, M.D.
- Jerry Hermanson, Highlands & Franklin Volunteer Clinics
- Leslie Mason, Nantahala School Counselor
- Johnny Mira-Knippel, Businessman and Hospital Board Member

Concerns and issues raised from these diverse community voices provide context for the research and statistical analysis. Their input provided important perspective on a variety of issues that will influence Macon County life and health over the next few years. A synopsis of the input provided by these groups and individuals may be reviewed on pages 8 to 13 of the 2011 Macon County Community Needs Assessment found at <http://www.maconnc.org/images/healthy-carolinians/2011MaconCountyCommunityHealthAssessmentReport.pdf>.

Integral to the comprehensive health assessment is collection, review, and comparison of key health statistics from Macon County. Public health departments, hospitals, and other health providers from across the state compile and report data on an annual basis. Evaluation of this data provides leaders in Macon County the opportunity assess their own health status, and also to compare local experiences with peer counties, as well as the state overall.

A subcommittee of HCMC leadership reviewed 22 key health statistics for Macon County and compared findings with state averages and with the following peer counties: Ashe, Haywood, Jackson, Polk and Transylvania. The source of the data was primarily the North Carolina State Center for Health Statistics, augmented with local Macon County data and findings from the Youth Risk Behavior Surveillance System (YRBSS).

The statistical analysis revealed that there are areas where Macon County has both more favorable and less favorable findings when compared to the state and peer counties. For example, areas where Macon County statistics are significantly worse than North Carolina state findings included:

- Suicides
- Injury from accidents, other than motor vehicles
- Women who smoke during pregnancy

Areas where Macon County statistics are significantly better than North Carolina state findings:

- Homicides
- Death from injuries motor vehicle accidents
- Trachea, bronchus and lung cancer
- Infant mortality
- Breast cancer
- Prostate cancer
- Obesity

Comparisons to peer counties can be more meaningful for some analyses. Peer counties are close to Macon either geographically or demographically. Areas where Macon County statistics are significantly worse than two or more peer counties included:

- Injury from accidents, other than motor vehicles
- Diabetes
- Colon, rectal and anus cancer
- Teen pregnancy
- Availability of primary care physicians
- Availability of dentists

Areas where Macon County statistics are significantly better than two or more peer counties:

- Suicides
- Injury from motor vehicle accidents
- Infant mortality
- Prostate cancer
- Low birth-weight babies
- Obesity

Simply identifying those issues where our community's numbers are better or worse than peer county numbers does not tell the entire story. Some findings can be influenced by one-time or short-term events. For example, a flooding tragedy at Peeks Creek in Macon County killed five in one day in 2004. Further, just being better than an average, does not diminish the importance of driving the incidence of health threats and disease even lower.

Summarized Action Plans

To address the priority areas, we will engage community partners that are either already working on these issues or are willing to help develop plans to address the issues.

For the priority issue of Obesity, we will utilize data from the Youth Risk Behavior Surveillance System and Body Mass Index information from school health fairs. Health Education Programs will be provided to encourage individual change. These may include Shopping Matters Tours, Eat Smart Move More NC, Faithful Families Eating Smart and Moving More, adult weight management classes, Lighten Up 4 Life, youth classes, such as Shape Down, Health Tracks for cardiac rehabilitation and physical activity, and worksite wellness/employee plans. Media campaigns, such as 5-2-1-AN will be utilized. Environmental changes will be addressed through safer conditions for outdoor physical activity. Policy changes will be addressed through food policies. Through regional efforts of the Community Transformation Project, issues such as healthier corner stores, Farmers' Markets and identification of community resources for chronic disease and weight management will be addressed.

For the priority issue of Recruitment and Retention of Primary Care Physicians and Dentists, we will continue to address issues of funding for the Community Care Clinic of Franklin, will promote use of the Molar Roller and Adult Dental Clinic, will assist Angel Medical Center as needed on recruitment of physicians, and will provide referral information to NC Access Care.

The issue of Cancer Prevention and Support is being addressed many ways throughout the county by many organizations and community groups. It was determined we could best address this issue by acting as a referral and/or source of information for those effected by cancer. Health Education Programs about cancer prevention and early detection are offered through public speaking opportunities as community organization meetings, Ladies Night Out and Men's Night Out. We will continue to advocate for tobacco free parks in municipalities and continuation of the TRU clubs in schools. We will also develop a way to explain uniform insurance coding to physician offices to facilitate payment by insurance companies, thereby reducing costs for the patient for out of pocket expenses. Angel Medical Center has a cancer clinic in outpatient medicine. They will also be working on the Cancer Prevention Study-3 with American Cancer Society. Through Regional efforts, the Community Transformation Project will address tobacco free living areas and identification of community resources for chronic disease. We plan to seek assistance of an intern to research cancer incidence rates and to review death certificates to determine cancer deaths in geographic locations.

Monitoring and Accountability

The process to develop the plan accounted for existing efforts and activities in the community, identified gaps in the same areas, engaged stakeholders, and built consensus for action. Successful implementation of the plan includes a commitment to action by organizations and residents throughout Macon County. Achievement of the goals for health improvement will be monitored through future community assessment activities. The plan will be revised in 2016.

This document is meant to be fluid in that it is an ever changing process to improve meeting the needs of the community. Strategies might be met or changed over time. Periodic updates will be posted as to the progress made.

CHAPTER 1 - INTRODUCTION

What is a Community Health Improvement Plan (CHIP)?

A Community Health Improvement Plan, or CHIP, is an action-oriented strategic plan outlining the priority health issues for a defined community, and how these issues will be addressed, including strategies and measures, to ultimately improve the health of the community. CHIPs are created through a community-wide, collaborative action planning process that engages partners and organizations to develop, support, and implement the plan. A CHIP is intended to serve as a vision for the health of the community and a framework for organizations to use in leveraging resources, engaging partners, and identifying their own priorities and strategies for community health improvement.

This CHIP is intended to help focus and solidify each of our key partner agency's commitment to improving the health of the community in specific areas. The goal is that through sustained, focused effort on this overarching framework, a wide range of public health partners and stakeholders engaged in assessment, planning, and action will be able to document measured improvement on these key health issues over the coming years.

The next phase will involve broad implementation of the action plan details included in this CHIP, and monitoring/evaluation of the CHIP's short-term and long-term outcomes and indicators.

This 2013 CHIP is focused on creating plans within a six month to three year timeline. The community health improvement process is iterative and involves continuous monitoring; we plan to release an annual update of this document in December 2013, and again in December 2014. The next community health assessment will be conducted in 2015.

How to Use this CHIP

This CHIP is designed to be a broad, strategic framework for community health, and will be a "living" document that will be modified and adjusted as conditions, resources, and external environmental factors change. It has been developed and written in a way that engages multiple voices and multiple perspectives. We are working towards creating a unified effort that helps improve the health and quality of life for all people who live, work, and play in our county.

We encourage you to review the priorities and goals, reflect on the suggested intervention strategies, and consider how you can join this call to action: individually, within your organizations, and collectively as a community. To get involved or for questions about the purpose of this document, please contact Dawn Wilde Burgess at Macon County Public Health at (828) 349-2426 or dwilde@maconnc.org.

Connection to the 2011 Community Health Assessment (CHA)

Community health assessment (CHA) is the foundation for improving and promoting the health of a community. Community health assessment, as a process and product, is a key step in the continuous community health improvement process. The role of CHA is to identify factors that affect the health of a population and determine the availability of resources within the county to adequately address these factors.

The 2011 Macon County Community Health Assessment process and products were designed to provide a rich set of data for our county and its partners to use in identifying major health concerns and issues. The information collected through this process, and the priorities identified, were considered in setting the priorities for our county, which are included in this CHIP¹.

WNC Healthy Impact

WNC Healthy Impact is a partnership between hospitals and health departments, and their partners, in western North Carolina to improve community health. As part of a larger, and continuous, community health improvement process, these partners are collaborating to conduct community health (needs) assessments across western North Carolina. See www.WNCHealthyImpact.com for more details about the purpose and participants of this regional effort. The regional work of WNC Healthy Impact is supported by a steering committee, workgroups, local agency representatives, and a public health/data consulting team.

¹ In some guidance documents, including National Public Health Accreditation standards, the CHIP includes details on the priority setting process. However, in the state of North Carolina, Local Health Department Community Health Assessment process and product includes the priority setting process, and the CHIP here is intended to document efforts involved in action planning that follow the collaborative setting of priorities in each county.

CHAPTER 2 – COMMUNITY HEALTH ASSESSMENT PROCESS

Prioritization Process & Criteria

Macon County selected to use methods prescribed in the Assessment Protocol for Excellence in Public Health (APEXPH) for establishing local health priorities. APEXPH is a flexible planning tool developed to, in part, provide a framework for working with community members and other organizations to assess the health status of the community. APEXPH helps communities set priorities on the basis of the size and seriousness of the problem and the effectiveness of available interventions. The APEXPH method used by Macon County as described below is a modification of a method developed by J. J. Hanlon and others as reflected in the references section of this document.

A. Rate the Size of the Health Problems

- Each health problem being considered was given a numerical rating on a scale of 0 through 10 that reflected the percentage of the local population affected by the particular problem--the higher the percentage affected, the larger the numerical rating.

B. Rate the Seriousness of the Health Problems

- The following questions were given consideration when rating the seriousness of health problems:
 - What is the emergent nature of the health problem? Is there an urgency to intervene? Is there public concern? Is the problem a health problem?
 - What is the severity of the problem? Does the problem have a high death rate or high hospitalization rate? Does the problem cause premature morbidity or mortality?
 - Is there actual or potential economic loss associated with the health problem? Does the health problem cause long term illness? Will the community have to bear the economic burden?
 - What is the potential or actual impact on others in the community (e.g., measles spread in susceptible population)?

C. Rate the Health Problems for the Effectiveness of Available Interventions

- Each health problem was scored for the effectiveness of available interventions in preventing health problems.

D. Apply the "PEARL" Test

- Once health problems were rated for size, seriousness, and effectiveness of available interventions, they were judged for the factors of propriety, economics, acceptability, resources, and legality. (The initial letters of these factors make up the acronym "PEARL,")

- Propriety
 - Is a program for the health problem suitable?
- Economics
 - Does it make economic sense to address the problem? Are there economic consequences if a program is not carried out?
- Acceptability
 - Will the community accept a program? Is it wanted?
- Resources
 - Is funding available or potentially available for a program.
- Legality
 - Do current laws allow program activities to be implemented?

Using a worksheet and formula prescribed by this method, a priority rank was assigned for each problem, based on the size of its priority score. In Macon County, three primary priorities were identified as well as five secondary priorities. The Macon County Healthy Carolinians Coalition subsequently developed working subcommittees to address the three primary priorities and identified existing community partnerships to address the secondary priorities.

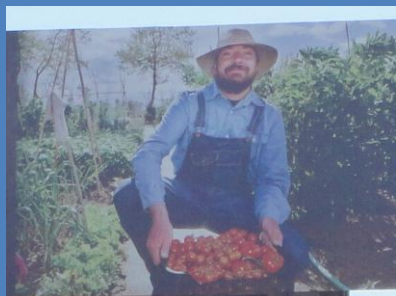
Chapter 3 – Priority # 1: Obesity Prevention

"We are in danger of raising the first generation of children who live sicker and die younger than their parents.

Teenagers in Macon County participating in focus groups said they would like to see a greater emphasis on exercise at school, recreation opportunities in the community, and also changes in their school lunches.

Physical activity and healthy eating are both critical parts of maintaining good health. Everyone benefits from being physically active and eating a variety of fresh, healthy foods every day.

Regular physical activity and good nutrition can reduce a person's risk of obesity and chronic disease and may prevent certain health conditions from worsening over time."



mountainwise.org

Those with their eye on the health of the community worry about a growing culture of obesity, especially among children and young adults. The problem is exacerbated by poor dietary choices, a lack of exercise and perhaps a lack of understanding of weight gain and life changes that lead to better health.

There is a need for increased emphasis on exercise and healthy eating. Among children, pediatricians and schools are important factors in the educational effort. Parents should be a part of the effort as well, although many parents also suffer from too much weight. Among older adults, physicians and employers (who bear increased health care costs) should be part of the solution.

Youth also recognize there is an obesity problem. Teenagers in Macon County participating in focus groups said they would like to see a greater emphasis on exercise at school, recreation opportunities in the community, and also changes in their school lunches.

There is a movement in the Latino community to promote gardening, and to increase appreciation for natural foods over processed foods. Those in focus groups and interviews report those in the Latino culture grew up unfamiliar with fruits and vegetables that grow well in the south, so they do not have a taste for them. Community leaders hope that gardens, where Latinos can grow vegetables they like, will not only help address dietary problems, but also help feed families who are struggling economically.

We are in danger of raising the first generation of children who live sicker and die younger than their parents. During the past 30 years, the number of overweight young people in the United States has more than tripled among children 6 to 11 years old and more than doubled among adolescents 12 to 19 years old (Source: CDC, Child Overweight and Obesity). Locally in Macon County, 9.5% of children on the WIC program are obese; 21.86% of Elementary School children are obese; 25.32% of Middle School Children are obese; and 10% of High School students are obese. Children and adolescents who are overweight have a greater risk of developing Type 2 diabetes and asthma; they are

more likely to have increased blood pressure and high cholesterol levels; and they are more likely to experience depression. In addition, the majority of children and adolescents who are overweight are likely to remain overweight throughout adulthood. Based on the 2011 Community Health Assessment for Macon County, 37% of adults are overweight and 33% are obese. Overweight and obese adults are at increased risk for heart disease, diabetes, stroke, osteoarthritis, and several forms of cancer resulting in reduced quality of life, and premature death (U.S. Department of Health and Human Services, 2001).

Physical activity and healthy eating are both critical parts of maintaining good health. Everyone benefits from being physically active and eating a variety of fresh, healthy foods every day. Regular physical activity and good nutrition can reduce a person's risk of obesity and chronic disease and may prevent certain health conditions from worsening over time. As a community, we must commit to creating an environment that guides residents to make healthy choices and take responsibility for decisions that support good health in our homes, neighborhoods, schools and workplaces.

Macon County has started to make these changes, but needs to increase opportunities for physical activity and healthy eating.

Spotlight on Success

The Macon County School Nutrition Program received the Gold Award of Distinction from HealthierUS School Challenge from the United States Department of Agriculture, a voluntary certification initiative established in 2004 to recognize those schools participating in the National School Lunch Program that have created healthier school environments through promotion of nutrition and physical activity.



Macon County first NC school district to receive USDA honor for nutrition

Dr. Jim Duncan recognized the district Child Nutrition Program for being the only program in North Carolina to receive the HealthierUS School Challenge Gold Award of Distinction from the United States Department of Agriculture.

"The awards have been granted to all four elementary sites: South Macon, Cartoogechaye, East Franklin and Iotla Valley," said Dr. Duncan. "The HealthierUS School Challenge is a voluntary certification initiative that recognizes schools participating in the National School Lunch Program that have created healthier school environments through promotion of nutrition and physical activity."

Although the award was given to Sherry Held, Child Nutrition Director Macon County Schools, she said that the award was made possible through the total participation by students and the hard work of the directors at each school site.

Held noted that the program required that the school meals reflect good menu planning principles, which emphasize a healthy variety of fruits, vegetables, whole grains and fat-free or low-fat milk. Held mentioned that while the program required 70 percent student participation, Macon County students embraced the changes and received the award with 78-80 percent of average lunch participation.

Partners

Addressing obesity is complex and will require the collaborative planning, action, and coordination of multiple partners in our community. The following partner agencies and organizations are engaged in efforts to reduce the incidence of preventable chronic disease related to obesity, particularly diabetes and heart disease, in our community.

KEY PARTNERS			
<ul style="list-style-type: none">• Macon County Schools• Macon County Public Library• Chamber of Commerce• WNC Healthy Kids/ WNCHN• Angel Medical Center• Highlands-Cashiers Hospital• Macon County Public Health• NC Cooperative Extension• Community Transformation Grant• Physician offices• Food Policy Council• Worksite wellness sites• Caterpillar Precision Seals• Churches• Recreational Facilities• Exercise Facilities• Government officials/leaders• City and County Planning Offices• Community Centers• MANNA• MAHEC	<table border="1"><thead><tr><th>ADDITIONAL RESOURCES</th></tr></thead><tbody><tr><td><ul style="list-style-type: none">• Center for Disease Control• Eat Smart Move More NC• NC Division of Public Health• The Community Guide Recommended Community Strategies And Measurements To Prevent Obesity In The United States: Implementation and Measurement Guide, July 2009, CDC• http://andevidencelibrary.com/category.cfm?cid=14&cat=0</td></tr></tbody></table>	ADDITIONAL RESOURCES	<ul style="list-style-type: none">• Center for Disease Control• Eat Smart Move More NC• NC Division of Public Health• The Community Guide Recommended Community Strategies And Measurements To Prevent Obesity In The United States: Implementation and Measurement Guide, July 2009, CDC• http://andevidencelibrary.com/category.cfm?cid=14&cat=0
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GOAL: Reduce the incidence of preventable chronic disease related to obesity, particularly diabetes and heart disease.

VISION OF IMPACT: Building a healthy community by reducing chronic health disease through various obesity prevention measures such as physical activity, improved nutrition and normal BMI ranges.

RISK FACTORS: Unhealthy diet and eating habits; lack of physical activity; unsafe exercise areas; insufficient walking paths; lack of knowledge about healthy foods.

Overweight and obesity pose significant health concerns for both children and adults. Excess weight increases an individual's risk of developing type 2 diabetes, high blood pressure, heart disease, certain cancers, and stroke. For the first time in two centuries, the life expectancy of children in the United States is predicted to be lower than that of their parents. The root cause of this phenomenon is the increase in obesity. Increased physical activity and improved nutrition are among the many factors that can help individuals reach and maintain a healthy weight.

While rates of childhood obesity are lower in Macon County than peer counties, this is still perceived as a significant and growing problem that needs community attention. 70% of adults interviewed and in focus groups were designated as overweight or obese.

Overweight and obesity are not only risk factors for several serious diseases, but may also worsen existing conditions.

Heart disease, cancer, stroke and chronic lung disease are the leading causes of death in North Carolina. Compared with national rates, North Carolina adults are more likely to have sedentary lifestyles and be obese.

Unhealthy diet and physical inactivity are among the leading causes of preventable death in North Carolina. More than half (53%) of all deaths of North Carolinians are preventable.

- In North Carolina, two-thirds of all adults (65.7%) are overweight or obese
- North Carolina ranks 5th worst in the US for childhood obesity
- Four of the leading 10 causes of death in the US are related to obesity

SHORT-TERM OBJECTIVES:

- Advocate for the continued administration of the county-specific Youth Risk Behavior Survey.
- Continue annual school health screening fairs, including Body Mass Index screenings.

RECOMMENDATIONS/EVIDENCE BASED STRATEGIES:

- Create convenient and safe opportunities for physical activities for Macon County residents through activities like increasing lighting for public walking areas, such as on the Greenway
- Identify community champions in targeted areas of the community to promote healthy eating and active living behavior and resources
- Collaborate with school system to administer the Center For Disease Control's Youth Risk Behavior Surveillance System to obtain county specific data

- The Macon County School Nurse Supervisor will continue to act as lead agent for coordinating the school screening fairs and delivering comparable BMI data
- Promote healthy eating and active living behaviors through existing networks and large-scale community events (such as community based organizations, workplaces, libraries, schools, child care centers, community centers, government, faith organizations, recreational facilities) through use of messages such as 5-2-1-Almost None (eat at least 5 servings of fruits and vegetables per day; no more than 2 hours of recreational screen time; at least 1 hour of physical activity; almost no sugar sweetened beverages)
- Increase reach of nutrition education by building capacity for delivery in community-based organizations, libraries, schools, day care centers, community centers, faith organizations, and recreational facilities
- Meet with city and county government leaders to promote strategies in the physical activity and nutrition plan
- Promote use of Farmer’s Markets and Roadside stands for purchase of fresh fruits and vegetables
- Establish community based prevention programs to promote healthy communities and reduce health inequities
- Promote worksite wellness programs that promote healthy foods and physical activity, assess health care risks and offer feedback and intervention support to employees
- Increase the number of convenience/corner stores offering and promoting healthier food and beverage options
- Increase the number of new or enhanced farmers’ markets, mobile markets, farm stands, and community supported agriculture programs
- Increase the number of identified community health resources for chronic disease management, weight management referral

Long-term Outcome Objectives	Baseline/Indicator Source
1. By December 2015, increase percentage of adults engaging in recommended physical activity from 37.6% to 41%	WNC Healthy Impact Survey
Related Healthy NC 2020 Objective: Increase the percentage of adults getting recommended amount of physical activity [2020 Target: 60.6%]	BRFSS
2. By December 2015, increase percentage of adults consuming recommended daily servings of fruits and vegetables from 8% to 10.3%	WNC Healthy Impact Survey
Related Healthy NC 2020 Objective: Increase the percentage of adults who report they consume fruits and vegetables five or more times per day [2020 Target: 29.3%]	BRFSS

3. By December 2015, decrease the number of children in K-5 with a Body Mass Index 85% and higher to no more than 32% (baseline 34.61%)	Macon County School Health Screening Fair BMI results
4. By December 2015, decrease the percentage of adults with diabetes from 12.4% to 10%	WNC Healthy Impact Survey
Related Healthy NC 2020 Objective: Decrease the percentage of adults with diabetes [2020 Target: 8.6%].	BRFSS

INTERVENTIONS: SETTING, & TIMEFRAME	COMMUNITY PARTNERS' Roles and Responsibilities	PLAN HOW YOU WILL EVALUATE EFFECTIVENESS
INTERVENTIONS SPECIFICALLY TARGETING HEALTH DISPARITIES; INDIVIDUAL CHANGE INTERVENTIONS; OR POLICY OR ENVIRONMENTAL CHANGE INTERVENTIONS		
<p>INTERVENTION: Advocate for the continued administration of the county-specific Youth Risk Behavior Surveillance Survey.</p> <p>SETTING: Schools</p> <p>START DATE – END DATE: February 2002 – ongoing</p> <p>LEVEL OF INTERVENTION: Change in policy</p>		
<p>LEAD AGENCY: Healthy Carolinians Staff will be responsible for administering the CDC’s Youth Risk Behavior Surveillance Survey to obtain county-specific data.</p> <p>Other agencies: Macon County School system, including members of the School Health Advisory Council, will collaborate with Healthy Carolinians to administer and ensure funding for the survey; SHAC members will review and approve YRBS questions and submit to the Board of Education for approval; Healthy Carolinians partners will be asked to sponsor YRBS when funds are needed</p>		
<p>EVALUATION MEASURES: This intervention is ongoing.</p> <p>Process: The survey was administered in 2002, 2005, 2007 and 2011.</p> <p>Output/Impact: Currently, Healthy Carolinians has a balance of \$5,700 to administer the survey in 2013. These funds are a balance of monies received from a Safe and Drug Free Communities grant. The 2011 survey can be viewed at http://www.maconnc.org/images/healthy-carolinians/MaconCountyYRBS2011Final.pdf</p> <p>Health/Safety Outcomes: Obtaining county-specific data about youth risky behavior. Evidence base: http://www.cdc.gov/healthyyouth/yrbs/index.htm - Methodology of the Youth Risk Behavior Surveillance System – 2013; www.cdc.gov/yrbs; www.nchealthyschools.org/data/yrbs</p>		
<p>INTERVENTION: Continue Annual School Health Screening fairs, including body mass index screenings</p> <p>SETTING: Schools</p> <p>START DATE – END DATE: September 2001 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in individual</p> <p>LEAD AGENCY: The Macon County School Nurse Supervisor will continue to act as lead agent for coordinating the school screening fairs.</p>		

OTHER AGENCIES: The School Health Advisory Council; Healthy Carolinians, Macon County Public Health, local hospitals, school PTO's, and other partnering agencies will continue to provide guidance and volunteers for the school screening fairs.

EVALUATION MEASURES: This intervention is ongoing.

Process: The Screening Fairs have occurred annually since 2001.

Output/Impact: The screening fairs give school age county specific data

Health/Safety Outcomes: Individual students will receive necessary referrals to address health issues.

INTERVENTION: Educate parents/caregivers regarding nutrition and physical activity recommendations, including risks of being overweight or obese, appropriate nutrition and physical activity behaviors.

SETTING: Community and schools

START DATE – END DATE: January 2000 - ongoing

LEVEL OF INTERVENTION: Change in individual and community

LEAD AGENCY: Macon County Public Health Center will promote education on nutrition and physical activity recommendations through evidence-based initiatives

OTHER AGENCIES: Healthy Carolinians Obesity Prevention Committee, Macon County School Health Advisory Committee, and other key partner agencies as needed will support appropriate nutrition and physical activity behaviors by supporting, volunteering, and advising Macon County Public Health Center's activities

EVALUATION MEASURES: This intervention is ongoing.

Process: Education on nutrition and physical activity will be delivered through evidence-based practices such as Shopping Matters Shopping Tours, Eat Smart Move More Faithful Families and Eat Smart Move More NC, adult weight management classes and youth programs such as Shape Down. Appropriate staff from the lead agency and key partners will speak on these topics at public meetings, such as Ladies Night Out.

Output/Impact: Recipients of nutrition and physical activity recommendations, including risks of being overweight or obese, appropriate nutrition and physical activity behaviors, will make lifestyle changes

Health/Safety Outcomes: A healthier community. Engage a broader base of partners, especially in the business community. Work with others to support physical activity and healthy eating options in places where we work, play, worship and live.

INTERVENTION: Increase physical activity in Macon County by enhancing personal safety in areas where persons are, or could be, physically active (i.e. Greenway, School track, existing walking trails), by increasing lighted areas

SETTING: community and schools

START DATE – END DATE: June 2013 – December 2015

LEVEL OF INTERVENTION: environmental

LEAD AGENCY: Healthy Carolinians staff, working with the Obesity Prevention Committee, will promote having well lit areas where individuals and family can exercise safely.

Other agencies: Macon County Public Health, Angel Medical Center, Highlands-Cashiers Hospital, Town of Franklin, Macon County Commissioners, Town and County Planning Boards, Duke Energy,

Macon County Schools

EVALUATION MEASURES: New intervention

Process: Healthy Carolinians staff and/or Obesity Prevention Committee members will create a checklist for existing walking areas to determine if lighting is needed to make it a safe environment for those who wish to engage in physical activity; discuss with Duke Energy and Town/County/School leaders to determine feasibility of lighting said areas; help implement plan if approved

Output/Impact: To encourage increased physical activity, best practices include providing access to existing facilities. Evidence base: Recommended Community Strategies And Measurements To Prevent Obesity in The United States: Implementation and Measurement Guide, July 2009, CDC

Health/Safety Outcomes: Reduced obesity rates, increased proportion of adults and children getting the recommended amount of physical activity of 30 minutes to 1 hour five days per week; neighborhoods, parks and outdoor spaces that provide easy access for walking and bicycling for recreation as well as other outdoor activities

INTERVENTION: Promote research based 5-2-1-Almost None message in Macon County

SETTING: Community

START DATE – END DATE: April 2012 – ongoing

LEVEL OF INTERVENTION: community change

LEAD AGENCY: Director of Healthy Carolinians of Macon County in partnership with Macon County Public Health. The Director of HCMC serves on the Steering Committee of this Board and the School Health Nurse Supervisor is a committee member.

Other agencies: Hospitals, the medical community, schools, families, child care providers, faith based communities, government agencies, businesses, parks and recreation all have a role to play in promoting this message

EVALUATION MEASURES: New intervention

Process: Assist in developing a tool kit for the 5-2-1-Almost None education initiative to raise awareness among children and caregivers of the recommendations that children should eat five or more fruits and vegetable per day; spend 2 hours or less per day on leisure screen time, engage in daily physical activity for at least one hour, and limit consumption of sugary drinks.

Output/Impact: WNC Healthy Kids and its stakeholders are prepared to assist the region in improving children and families' health by sharing 5-2-1 Almost None tools, strategies and ideas that each sector can use to assure that Western North Carolina reaches its healthy weight goals.

Health/Safety Outcomes: Research has shown that promoting a simple, unifying message, in conjunction with community interventions, can empower entire communities to take clear and direct actions which will improve specific health outcomes. <http://www.nciom.org/wp-content/uploads/2011/09/IOM-Young-Child-Obesity-2011-Recommendations.pdf>

INTERVENTION: Encourage participation in Lighten Up 4 Life, a free, on-line team based community weight loss challenge

SETTING: community

START DATE – END DATE: 2012 - ongoing

LEVEL OF INTERVENTION: community, family, individual

LEAD AGENCY: Angel Medical Center

Other agencies: Macon County Public Health, area businesses and local organizations, schools, grocery stores.

EVALUATION MEASURES: New intervention

Process: Share information about Lighten Up 4 Life through community events and Worksite wellness programs

Output/Impact: AMC's LU4L currently has 662 members and is beginning its 4th session. A new relationship has been developed with Ingles Markets to promote healthy lifestyles through this program.

Health/Safety Outcomes: Research suggests that teammates effect weight loss outcomes during a team based intervention. Harnessing and maximizing teammate influence for weight loss may enhance weight outcomes in large-scale team-based programs. <http://www.shapeup.com/PDFs/Study-Social-Influence-Affects-Weight.pdf>

INTERVENTION: Employee Health Plan (Worksite Wellness)

SETTING: Hospital

START DATE – END DATE: April 2013 - ongoing

LEVEL OF INTERVENTION: Change in individual, family, policy

LEAD AGENCY: Angel Medical Center

Other agencies: Crescent Health Services, fitness centers, YMCA

EVALUATION MEASURES: New intervention

Process: To be part of the wellness plan, employee attends HRA screening (which includes finger stick, waist measurement, height and weight), and must provide proof of a physical from their primary care doctor. If the spouse of the employee is covered by the insurance plan, they must also participate in the HRA screening or the employee does not receive the program incentive. The participant must walk 14 hours per month. They can participate in the healthy choice meal plan in which if they get a salad with low fat dressing or a red apple meal they get the meal at cost and receive a punch on a card – after 5 punches a healthy meal is free, and the dates of the meal do not have to be consecutive (no deadline on how long it takes to get the 5 punches). They also receive disease management – free counseling and prescription drugs (covered by hospital). This includes diabetes and tobacco cessation (free patches or Chantix). The employee also receives a discount of one-half price at Legacy or Body Visions gyms and this is payroll deducted. The employee also receives a Fit-Bit which they wear on their shoe to record physical activity. There are places they walk by to have the data downloaded. They can then go onto the website and look at progress and get a print out of activity. Participation in the Employee Health Plan also results in a deduction in health insurance premiums.

Output/Impact: 264 people enrolled in the worksite wellness program.

Health/Safety Outcomes: Healthy North Carolina 2020: A Better State of Health recommends as strategies to prevent and reduce obesity by promoting healthy eating and physical activity that worksites institute worksite wellness programs and promote healthy foods and physical activity; assess health risks and offer feedback and intervention support to employees; and that insurers offer coverage at no cost sharing for obesity screening for children aged more than 6 years and adults and for counseling and behavioral interventions for those identified as obese.

<http://www.thecommunityguide.org/obesity/workprograms.html>.

<http://www.thecommunityguide.org/worksite/ahrf.html>.

<p>INTERVENTION: Faithful Families Eating Smart and Moving More</p> <p>SETTING: Churches</p> <p>START DATE – END DATE: July 2013 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in individual, family, community, policy, environment</p>
<p>LEAD AGENCY: Macon County Public Health</p> <p>OTHER AGENCIES: NC Cooperative Extension, Department of Public Health, churches, Eat Smart Move More</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: meet with churches to discuss program; identify lay leaders to help deliver program; set up ESMM committee; build support; assess faith community and members using provided survey and assessment tools; develop a program plan; implement the plan; evaluate the program; celebrate success; plan future programs</p> <p>Output/Impact: promote healthy eating and physical activity in communities of faith, through classes and policy and environmental change</p> <p>Health/Safety Outcomes: Eat Smart Policies</p>
<p>INTERVENTION: Increase the number of Maconians who have access to opportunities for active living</p> <p>SETTING: community</p> <p>START DATE – END DATE: June 1, 2013 – May 31, 2014</p> <p>LEVEL OF INTERVENTION: Change in policy, environment, individual, family</p>
<p>LEAD AGENCY: Community Transformation Grant Project</p> <p>OTHER AGENCIES: Macon County Public Health, Planning Departments, Southwest Commission (Region A Planning), HIA contractor, contracted facilitator, media,</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: engage planning departments; plan and implement a public health professional and planner professional development workshop; raise awareness about active living issues and initiative through use of media, consistent messaging; create education tools to assist in planning efforts; complete an assessment of existing policies and plans; complete an evaluation of existing policies and plans; evaluate each comprehensive plan with regards to health to determine future actionable directions; complete public and stakeholder outreach through public input sessions; draft a health-specific element of a chapter or other materials related to documenting county specific public outreach; incorporate health elements into comprehensive plans as county process dictates</p> <p>Output/Impact: : increase the number of new or revised comprehensive plans that include health considerations; workshop implementation; development of educational tools; completion of assessment with county specific considerations;</p> <p>Health/Safety Outcomes: Engaging in regular physical activity is one of the most important things that people of all ages can do to improve their health.</p> <p>www.surgeongeneral.gov/initiatives/prevention/strategy/active-living.pdf</p>
<p>INTERVENTION: Increase the number of Maconians with access to small retail stores that offer healthier food and beverage options</p> <p>SETTING: community</p> <p>START DATE – END DATE: June 1, 2013 – May 31, 2014</p>

<p>LEVEL OF INTERVENTION: Change in environment</p>
<p>LEAD AGENCY: Community Transformation Grant Project</p> <p>OTHER AGENCIES: Macon County Public Health, Western Carolina University Professors and Students, state staff, media, WNC Food Policy Council, ASAP, Cooperative Extension, Planners, Corner Store Management, Place Makers, Chamber of Commerce, businesses,</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: raise awareness about healthy eating issues and initiatives through use of media and consistent messaging; advocate for creation of a Healthy Corner Store toolkit; work with WCU Nutrition Department to gather data on pilot stores; create or use existing implementation and marketing plan to be shared with potential convenience/corner store owners to pilot the concept; assess business community and associated neighborhoods to determine interest/viability in pilot concept; promote and implement pilot concept; evaluation of pilot concept from a business and public health perspective; present results of both evaluation measures to all partners; determine future course of action</p> <p>Output/Impact: development of a media plan and educational tools; completion of data collection and analysis; creation of implementation and marketing plans; assess business owners and neighborhoods; identification of pilot participants; initiation of pilot sites; evaluation report; dissemination of evaluations; identify future or continued participants</p> <p>Health/Safety Outcomes: increase the number of convenience/corner stores offering and promoting healthier food and beverage options</p>
<p>INTERVENTION: increase the number of Maconians with access to Farmers' Markets</p> <p>SETTING: community</p> <p>START DATE – END DATE: June 1, 2013 – May 31, 2014</p> <p>LEVEL OF INTERVENTION: Change in community, individual, family</p>
<p>LEAD AGENCY: Community Transformation Grant Project</p> <p>OTHER AGENCIES: Macon County Public Health, ASAP, media, WNC Food Policy Council, Farmers' Markets Managers/Vendors, Roadside Stand Vendors, NC Cooperative Extension, State staff, WCU Nutrition Department</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: raise awareness about healthy eating issues and initiatives through use of media and consistent messaging; assess farmers' market interest in SNAP/EBT program; develop training; complete assessment; evaluate effectiveness of farmers' market enhancement through CTG support; pilot mobile market feasibility study; continue to work with farmers' markets to assess needs</p> <p>Output/Impact: development of media plan and educational tools; completion of assessment; training implementation; partnership engagement</p> <p>Health/Safety Outcomes: increase the number of new or enhanced farmers' markets, mobile markets, farm stands, and community supported agriculture programs</p>
<p>INTERVENTION: increase the number of identified community health resources for chronic disease management, weight management referral</p> <p>SETTING: community</p> <p>START DATE – END DATE: June 1, 2013 – May 31, 2014</p> <p>LEVEL OF INTERVENTION: Change in</p>

<p>LEAD AGENCY: Community Transformation Grant Project</p> <p>OTHER AGENCIES: Macon County Public Health, Hospitals, MAHEC, Hi-Top Assist</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: contract with individual to create inventory of available health resources in clinical preventative resources</p> <p>Output/Impact: development of metrics and process; completion of assessment</p> <p>Health/Safety Outcomes: Increase the number of community organizations offering supports for individuals identified with high blood pressure/cholesterol</p>
<p>INTERVENTION: Phase II Cardiac Rehabilitation</p> <p>SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital</p> <p>START DATE – END DATE: November 1996 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in individual</p>
<p>LEAD AGENCY: HealthTracks</p> <p>OTHER AGENCIES: Highlands-Cashiers Hospital, physicians, cardiologists</p>
<p>EVALUATION MEASURES: This program started in November 1996 and has been ongoing since that time with continued growth anticipated.</p> <p>Process: Patients with the following diagnoses are referred by their physician or cardiologist for cardiac rehabilitation services: PTCA with or without stent, myocardial infarction, coronary artery bypass grafting, heart transplant, valve repair or replacement, and stable angina.</p> <p>Output/Impact: 36-session rehabilitation program for patients with existing and treated cardiovascular diseases. Census varies throughout the year due to seasonal environment. However, program is ongoing at all times throughout the year.</p> <p>Health/Safety Outcomes: Reduce potential for reoccurrence of cardiac related events, improve overall quality of life of patients, extend lifespan of most patients who attend and complete program. Even those patients completing 12 sessions of this 36 session program can expect to benefit in preventing reoccurrence of cardiac related events and improved quality of life.</p>
<p>INTERVENTION: Phase III Cardiac Maintenance</p> <p>SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital</p> <p>START DATE – END DATE: 2002 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in individual</p>
<p>LEAD AGENCY: HealthTracks</p> <p>OTHER AGENCIES: Highlands-Cashiers Hospital, physicians, cardiologists</p>
<p>EVALUATION MEASURES: This program started in 2002 to provide a safe environment for former cardiac rehabilitation patients seeking to exercise in a facility monitoring vital signs pre- and post-exercise.</p> <p>Process: Patients completing the full 36-sessions of cardiac rehabilitation may join as a Phase III Cardiac Maintenance client. The patient will have blood pressure, heart rate and O2 saturation checked by clinical staff pre- and post-exercise and during exercise as needed. This enables the client to feel more secure in exercising to target heart rate range and maximizing exercise capacity and potential.</p> <p>Output/Impact: Six-month or annual program for patients who have completed 36-session Phase II Cardiac Rehabilitation program. Census varies throughout the year due to seasonal environment.</p>

However, program is ongoing at all times through the year.

Health/Safety Outcomes: Reduce the potential for reoccurrence of cardiac related events, improve overall quality of life of clients, promote reduction in risk for weight gain and/or obesity, promote improved management of diabetes mellitus type I and II, reduce potential for age-related falls due to increased strength of large muscle groups. Most clients will experience an increase in locus of control and overall improvement in well-being.

INTERVENTION: Community Fitness and Wellness Program

SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital

START DATE – END DATE: 2001 - ongoing

LEVEL OF INTERVENTION: Change in individual, community

LEAD AGENCY: HealthTracks

OTHER AGENCIES: Highlands-Cashiers Hospital, physicians

EVALUATION MEASURES: This intervention is offered to promote a safe environment in which community members can exercise with supervision. Risk factors are evaluated when member enters program. A personalized exercise program is recommended for each member to meet their physical needs and/or limitations and personal or physician prescribed goals.

Process: Members may join with or without physician referral for the time period that suits their desired goals and needs.

Output/Impact: Fitness/Wellness center offers exercise options for daily, weekly, monthly, quarterly, semi-annual and annual members. Facility offers a variety of cardiovascular training equipment, free weights, Cybex strength training equipment, a variety of exercise classes. Currently have 60 fitness/wellness members.

Health/Safety Outcomes: Promotes increase in physical activity, potential for improved weight maintenance or obesity prevention, increase in socialization, overall improvement of well-being of community members in this largely retirement-age community.

INTERVENTION: Chestnut Hill Exercise and Activity Program

SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital

START DATE – END DATE: 2004

LEVEL OF INTERVENTION: Change in individual, community

LEAD AGENCY: HealthTracks

OTHER AGENCIES: Highlands-Cashiers Hospital, physicians

EVALUATION MEASURES: This program was started to fulfill the mission of Highlands Cashiers Hospital to promote health and wellness for all members of the Highlands-Cashiers communities. Exercise program is designed to offer both cardiovascular and strength training for Chestnut Hill residents. Balance training is provided with physician referral.

Process: Resident is generally referred by their physician for exercise.

Output/Impact: Residents and Assisted Living residents of Chestnut Hill are transported by bus three times each week to attend supervised exercise. This includes residents with all levels of mobility including walking, walking with cane, walking with walker, wheelchair bound. Nine residents currently attending program.

Health/Safety Outcomes: Residents improve cardiovascular fitness and endurance. They improve

overall strength of large muscles groups which improves mobility and may reduce potential for falls. An added bonus is the socialization provided by residents traveling with other companions to and from the facility, socializing during exercise, socializing with HealthTracks staff. This provides much needed stimulation for residents in their senior years.

INTERVENTION: Diabetes Self-Management Education

SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital

START DATE – END DATE: January 1999 - Ongoing

LEVEL OF INTERVENTION: Change in individual

LEAD AGENCY: HealthTracks

OTHER AGENCIES: Highlands-Cashiers Hospital, physicians

EVALUATION MEASURES: This intervention program provides education and counseling for newly diagnosed patients as well as patients with uncontrolled diabetes following initial intervention methods.

Process: Patient is referred by physician for out-patient diabetes education. Patient may be self-referred.

Output/Impact: Out-patient diabetes education counseling for patients with diabetes mellitus type I and II and pre-diabetes. Patients are referred throughout the year on an ongoing basis.

Health/Safety Outcomes: Strive to improve glycemic control in patients with all types of diabetes mellitus. Decrease potential for long-term complications associated with long term and uncontrolled diabetes mellitus. Decrease potential for four-fold increased risk for cardiovascular diseases associated with uncontrolled diabetes mellitus. Improve overall nutrition status by educating patients on healthy and appropriate food choices. Increase daily physical activity level of patients to assist in management of blood glucose levels and assist in weight management and weight gain prevention.

INTERVENTION: Weight Management Education

SETTING: HealthTracks Fitness/Wellness Center – Highlands Cashiers Hospital

START DATE – END DATE: January 1999 - Ongoing

LEVEL OF INTERVENTION:

LEAD AGENCY: HealthTracks

OTHER AGENCIES: Highlands-Cashiers Hospital, physicians,

EVALUATION MEASURES: This intervention provides education and on-going counseling for clients needing guidance and follow-up for weight loss, weight maintenance and/or weight gain.

Process: Patient is referred by physician for out-patient weight management education. Patient may be self-referred.

Output/Impact: Out-patient nutrition education invention for clients with weight loss, weight gain and weight maintenance needs. Patients are referred throughout the year on an ongoing basis.

Health/Safety Outcomes: Provide weight maintenance intervention prior to reaching the high-risk stage of obesity, whenever possible. If patient is obese, counsel and educate patient in a program to lose weight and to decrease overall BMI to a lower level of risk, i.e., from obese to overweight, from overweight to normal weight range. Strive to prevent onset of diabetes mellitus type II or pre-diabetes associated with excessive weight gain and inactivity. Strive to prevent increased risk for premature cardiovascular diseases associated with excessive weight gain.

INTERVENTION: Diabetes Education and Medical Nutrition Therapy

SETTING: Individual

START DATE – END DATE: 2011 - ongoing

LEVEL OF INTERVENTION: Change in individual

LEAD AGENCY: Macon County Public Health

OTHER AGENCIES: physicians

EVALUATION MEASURES: This intervention is ongoing but not reported before

Process: A physician's referral form is required to receive services. The downloadable form is available at <http://www.maconnc.org/health-diabetes.html>.

Output/Impact: Individuals with a variety of conditions and illnesses can improve their health and quality of life by receiving medical nutrition therapy. During an MNT visit, registered dietitians counsel clients on behavioral and lifestyle changes required to impact long-term eating habits and health. MNT services are offered to everyone. Medicaid pays for services for children, young adults ages 20 and under, pregnant and postpartum women, and to those with diabetes. These services are provided by a staff dietitian at the health center. Certain health insurances will cover the fees associated with MNT services and for those without insurance fees will be based on income. The Diabetes Self-Management Education Program is for adults diagnosed with Type 2 diabetes and their family members or friends. The program includes: ten hours of education on healthy eating, being active, checking blood sugar, taking medication, problem solving, healthy coping and reducing risk for complications; and, individual meetings with a Registered Dietician and group classes. The cost is covered by many insurance providers and offered on a sliding scale fee based on income for those without insurance.

Health/Safety Outcomes: The evidence is strong that medical nutrition therapy provided by registered dietitians is an effective and essential therapy in the management of diabetes. J Am Diet Assoc. 2010 Dec;110(12):1852-89. doi: 10.1016/j.jada.2010.09.014. The evidence for medical nutrition therapy for type 1 and type 2 diabetes in adults. Franz MJ, Powers MA, Leontos C, Holzmeister LA, Kulkarni K, Monk A, Wedel N, Gradwell E. Source: Nutrition Concepts by Franz, Inc, Minneapolis, MN 55439, USA. MarionFranz@aol.com. Diabetes Self-Management Training (DSMT) and Medical Nutrition Therapy (MNT) are complementary services used to improve diabetes care. Providing overall guidance to people with diabetes, it covers the many aspects of diabetes self-management and glycemic control. DSMT increases the patient's knowledge and skills about the disease and promotes behaviors for self-management of their health. DSMT classes can take place in a variety of settings, from hospitals to clinics to medical offices, through an accredited DSMT program. DSMT is not the same as Medical Nutrition Therapy, which is a more intensive, comprehensive nutrition therapy service that relies heavily on follow-up and provides repeated reinforcement to help change the beneficiary's behavior. But because DSMT and MNT provide different behavioral modification techniques, they are complementary and it may be more medically effective for some beneficiaries to receive both therapies than one or the other. <http://andevidencelibrary.com/category.cfm?cid=14&cat=0>

INTERVENTION: LIFE (Lifestyle Improvements for Employees) Worksite Wellness Program

SETTING: Macon County

START DATE – END DATE: 1992 - ongoing

LEVEL OF INTERVENTION: Change in individual

LEAD AGENCY: Macon County Public Health

OTHER AGENCIES: Macon County Government Offices

EVALUATION MEASURES: This intervention is ongoing but not before reported

Process: An employee begins participation in the classes by signing a waiver for physical activity and asking the worksite wellness coordinator to include them in future activities.

Output/Impact: This program provides a yearly screening designed to identify individuals at risk for preventable illnesses and injuries. The screening includes: computerized health risk appraisal, health history, height/weight measurement, cholesterol measurement, blood pressure measurement, health education, flu shots (in season) and body fat analysis. The computerized health risk appraisal (HRA) is done at the time of the screening to assess employees' current health risks, reinforce current lifestyle practices and identify action steps to improve their health. A report is sent to each employee on his/her health status and a group report is generated for management. Data collected from the screening is used to streamline employees into specific risk reduction programs. A variety of screenings, classes and programs are available. Several Health Education classes are available throughout the year. 370 employees are eligible to participate in the LIFE program.

Health/Safety Outcomes: Healthy North Carolina 2020: A Better State of Health recommends as strategies to prevent and reduce obesity by promoting healthy eating and physical activity that worksites institute worksite wellness programs and promote healthy foods and physical activity; assess health risks and offer feedback and intervention support to employees; and that insurers offer coverage at no cost sharing for obesity screening for children aged more than 6 years and adults and for counseling and behavioral interventions for those identified as obese.

<http://www.thecommunityguide.org/obesity/workprograms.html>.

<http://www.thecommunityguide.org/worksites/ahrf.html>.

Chapter 4 – Priority # 2: Medical and Dental Community Development

Community leaders interviewed said they would like to see an emphasis on physician recruitment and retention. A key issue in recruiting and retaining physicians in a rural community is quality of life. A physician might be interested in Franklin, but there must also be opportunities for the spouse and appropriate educational and cultural opportunities for children. Not every medical family is attracted to the small town lifestyle. The community lost three primary care physicians in 2010-2011, primarily for lifestyle reasons.

Angel Medical Center in Franklin, a critical access community hospital, has an affiliation with Memorial Mission Health System in Asheville. The relationship has led to the expansion of some important specialty services available in Macon County, at least on a part-time basis.

There is now expanded cardiology coverage and orthopedic services available at Angel. However, many Macon residents continue to access specialty care in Jackson County (Sylva), where there is a larger specialty physician community. Some also access specialty care in Asheville.

Seniors in the community see the need for increased access to specialty services. They are usually able to access what they need, but would prefer to have more services closer to home, such as dialysis services.

The economic recession has prompted increased use of free health services provided by volunteer health clinics in Highlands and Franklin. Leaders of an established clinic in Highlands helped open a new clinic in Franklin in 2010, and both clinics are busy during their part-time hours. In fact the Highlands clinic grew in utilization despite opening the new clinic in Franklin.

Both clinics operate one evening per week using volunteer physicians and nurse practitioners. Despite the limited hours, the clinics manage to serve about 200 patients a month. The Franklin clinic had 1,093 patient visits in its first year, while the Highlands clinic had 943 visits. Thirty percent of the patients in Highlands continue to come from the Franklin area.

The clinic in Franklin had start-up funding and ongoing administrative support from the clinic in Highlands. This support

“A key issue in recruiting and retaining physicians in a rural community is quality of life. A physician might be interested in Franklin, but there must also be opportunities for the spouse and appropriate educational and cultural opportunities for children. Not every medical family is attracted to the small town lifestyle.”



ended in 2012, however, and the Franklin clinic had to become self-supporting, securing its own gifts and grants to keep the doors open.

A problem that is made more serious by the expansion of free primary care in Macon County is limited access to diagnostic services and specialty care. There is no formal process for securing specialty referrals for those without insurance or ability to pay. According to those who volunteer in the free clinics, specialty care appointments are especially difficult to obtain for cardiology, orthopedics, urology and obstetrics/gynecology.

There is also difficulty accessing and paying for specialty diagnostics in physician offices or at the hospital. Hospitals and physicians cannot give these services away, at least not in unlimited amounts. Angel Medical Center has a charity care program and provides services to patients on a sliding scale. Yet even the sliding scale is unaffordable for many patients.

The Highlands Hospital provides free diagnostic services to patients from the Highlands volunteer clinic.

The availability of primary care physicians in Macon County is a moving target. Analysis of physicians in the county from 2004 to 2008 shows there were 9.6 per 10,000 population, about equal with the ratio statewide.

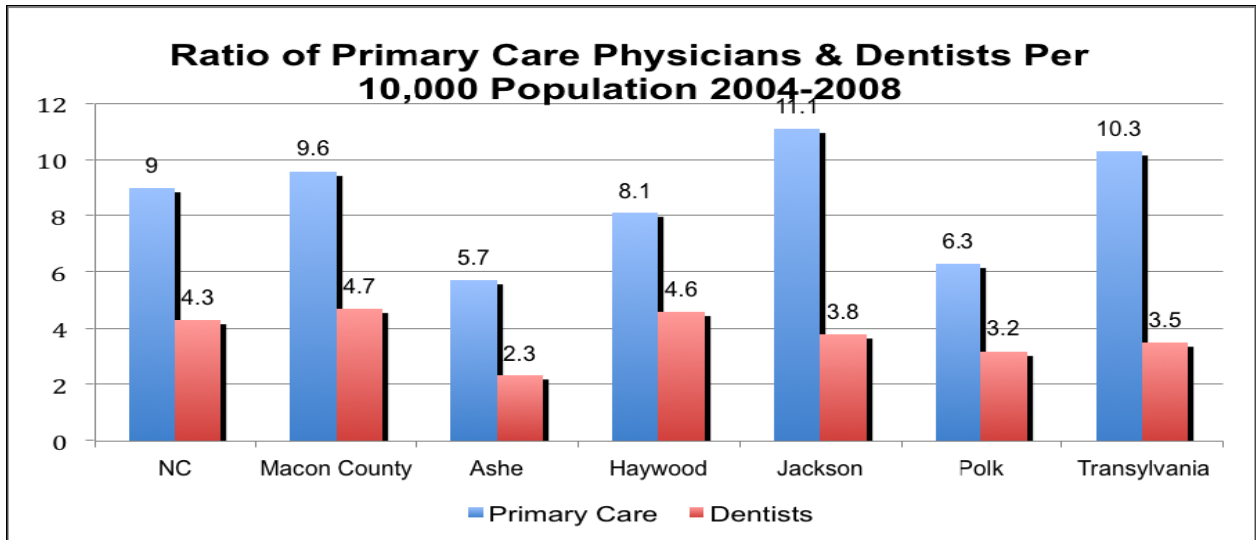
Physicians come and go, however, and Macon County has lost several primary care doctors in recent years, and others are nearing retirement. This makes recruitment and retention of physicians a high priority.

The availability of physicians is one area where peer county analysis may be inadequate. The physician to population ratio for Ashe County is 5.7 per 10,000 population, for example, but Ashe County has major interstate access to physicians in larger cities like Hickory and Winston-Salem. The same is true for Haywood and Polk County. There are no interstate highways connecting Macon County to a major metropolitan area.

Many Macon residents seek medical care in Jackson County, and the ratio of primary care physicians to population there is somewhat higher at 11.1.

Macon County boasts a higher concentration of dentists, however, higher than the state or any peer county.

The table below shows the ratios of primary care physicians and dentists in Macon County and in comparison areas for 2004-2008.



Source: North Carolina Center for Health Statistics

Complementary to good health practices is a consistent relationship with physicians, dentists and the health care system. The research explored access to basic health services.

Medical & Dental Care

The research shows that most Macon County residents have access to care. Compared to 2007, more are accessing care in Franklin than in 2007, perhaps a reflection of more physicians in the area and also the availability of a new free clinic. In the 2011 study, 83% of respondents saw a doctor in Franklin in the past year, compared to 76% in 2007. However, 33% of county residents do report going to doctors in Jackson County for some reason.

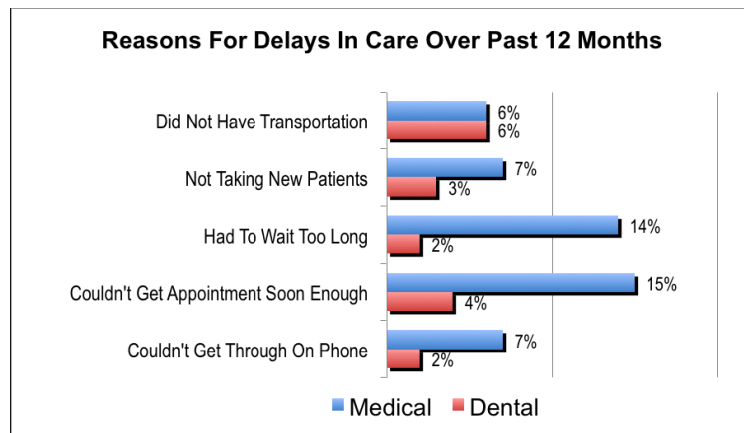
Fewer people report accessing care in the past year; however, than in 2007, 83% to 90%. This is perhaps indicative of economic constraints, such as loss of insurance. Over one in five Macon adults (22%) delayed medical care over the past year because they could not afford it.

The vast majority of Macon adults (81%) go to a doctor's office when they do access care. However, 7% report they go to a clinic or the health department and 7% report they go to "some other place." Reported use of the health department or a clinic rises to 16% among those without insurance.

Residents also delayed access to other services because they could not afford it. Those most likely to report they delayed care are no surprise, lower income and those without insurance.

For example, one in four Macon adults (26%) delayed dental care in the past year for financial reasons. Accessing dental care continues to be an issue for low income adults. According to the research, 43% of those earning less than \$25,000 per year have not seen a dentist in the past two to five years or longer.

There are other factors that discourage access to care, though they appear to be less acute. The chart below shows that getting an appointment is the most frequently cited reason adults delay physician care. These findings are indicative of some level of office crowding or physician under-supply, though not severe.



Source: HCMC Community Health Survey, 2011

Access to Care for Children

Happily children in Macon County have access to necessary physician and dental care. According to the study, parents report that 96% of children saw a physician or medical professional in the past year, and 77% saw one in the past six months. Further, 88% of parents report their child's doctor is a pediatrician.

There are some small, but perhaps important, gaps in the support system for children that could be related to economic issues. In 2007, zero parents reported they delayed care for their children because they could not afford it. Further, virtually all children were covered by some type of insurance. In the 2011 study, 3% of parents reported they delayed medical care for children for economic reasons, and 7% said their children are not covered by any type of health insurance.

In addition, 5% said they delayed getting a prescription for their children because they could not afford it, and 6% delayed taking a child to the dentist.

Access to dental care for children is getting better, however. For example:

- 88% of parents with children report taking their child to the dentist in the past year.

- 73% have taken a child to the dentist in the past six months.
- Low income parents report virtually the same access to dental care for their children as upper income parents.

All these findings are improved over 2007 research.

More recently, Angel Medical Center, which has a physician recruitment program, has had much success in recruiting primary care physicians and specialists.

Spotlight on Success

Citizens in Macon County officially have a new location to seek treatment when needing dental services. The Macon County Public Health Department has expanded the dental clinic options as the grand opening for the new adult dental facility was held last Thursday. More than 100 visitors stopped in to tour the new facility and about 70 participated in free health screenings. The clinic provides services for patients 18 and older. The new clinic, located at 108 Macon Center Drive, is a 2,000 square foot facility, more than twice as large as the last clinic.

“The facility was expanded from 800 square feet to 2,000 square feet,” said Jimmy Villiard, Personal Health Section Administrator at Macon County Public Health. “In addition, we were able to expand from three dental chairs to four. Panorex x-ray capability was also added. The Panorex allows for full-mouth x-rays.”

In addition to the extra space and upgraded equipment, the clinic's expansion will allow the health department to begin offering dentures for adult clients. The clinic also offers comprehensive dental care and can serve as a patient's primary dental provider. Dr. Bruno Kaldre and his staff offer a full spectrum of preventive, restorative, cosmetic, and emergency care.

“Access to dental care has been a consistent need identified in Macon County's Community Health Assessment,” said Villiard. “This clinic is open to all residents of Macon County. Because fees are assessed on a sliding scale, based on the income of the client, the services are accessible to almost everyone in the community, regardless of income. In addition, the clinic is one of the few in Macon County that accepts Medicaid reimbursement for dental care. Oral health is an important component of overall wellness. Most significantly, poor oral health can lead to cardiovascular medical complications.”

Town officials, chamber members and dental clinic employees gathered for the official opening of the Macon County Adult Dental Clinic. The clinic is located at 108 Macon Center Drive, below Macon Bank Corporate Center.



Macon County News, May 2, 2013

Partners

Access to primary care physicians and dentists is a high priority in Macon County, requiring the collaborative planning, action, and coordination of multiple partners in our community. The following partner agencies and organizations are engaged in efforts to recruit and retain primary care physicians and dentists.

KEY PARTNERS	ADDITIONAL RESOURCES
<ul style="list-style-type: none">• Macon County Public Library• Chamber of Commerce• Angel Medical Center• Highlands-Cashiers Hospital• Macon County Public Health• Physicians• Churches• Recreational Facilities• Exercise Facilities• Government officials/leaders• Macon County Schools• City and County Planning offices• Community Centers• Community Transformation Grant Project• Economic Development• Social Services• MAHEC	<ul style="list-style-type: none">• Center for Disease Control• Eat Smart Move More NC• NC Division of Public Health• The Community Guide• An Analysis of Oral Health Disparities and Access to Services in the Appalachian Region: PDA, Inc., Cecil. G. Sheps Center/UNC-Chapel Hill, University of Mississippi Medical Center, and Mississippi State University ARC Contract Nos.: CO-16034-2008 and CO-16835-2010• http://www.countyhealthrankings.org/policies/expand-rural-training-tracks-and-programs-medical-education

GOAL: Promote recruitment and retention of additional primary care physicians and dental practitioners serving Macon County residents.

VISION OF IMPACT: Access to care.

RISK FACTORS: Poverty; lack of transportation; lack of insurance

SHORT-TERM OBJECTIVES:

- Promote use of urgent care facility
- Promote use of dental clinics
- Promote Macon County to physician/PA/dental spouses/significant others

RECOMMENDATIONS/EVIDENCE BASED STRATEGIES:

- Provide funding information to the Franklin Community Care Clinic
- Participate in media dissemination for opening of new dental clinic
- Participate in media dissemination to welcome new physicians to area

<u>Long-term Outcome Objectives</u>	Baseline/Indicator Source
1. By December 2015, increase the percentage of children aged 1 – 5 years enrolled in Medicaid who received any dental service during the previous 12 months from 46.9% to 51.65%.	NCIOM
Related Healthy NC 2020 Objective: Increase the percentage of children aged 1 – 5 years enrolled in Medicaid who received any dental service during the previous 12 months [2020 Target: 56.4%]	CMS Form 416 Report
2. By December 2015, increase the average number of people saying they have visited a dentist in the past year (baseline 66.3%)	WNC Healthy Impact Survey
3. By December 2015, increase the number of people who say they have visited a physician for a checkup in the last year (baseline 72.4% for WNC)	WNC Healthy Impact Survey
Related Healthy NC 2020 Objective: Increase the percentage of adults reporting good, very good, or excellent health [2020 Target: 90.1%]	BRFSS (CDC)
4. By December 2015, decrease the number of people who reported they were unable to get needed medical care at some point in the past year (baseline 10.8%)	WNC Healthy Impact Survey

INTERVENTIONS: SETTING & TIMEFRAME	COMMUNITY PARTNERS ROLES AND RESPONSIBILITIES	PLAN HOW YOU WILL EVALUATE EFFECTIVENESS
INTERVENTIONS SPECIFICALLY TARGETING HEALTH DISPARITIES; INDIVIDUAL CHANGE INTERVENTIONS; OR POLICY OR ENVIRONMENTAL CHANGE INTERVENTIONS		
INTERVENTION: Provide funding information to Franklin Community Care Clinic		
SETTING: Clinic		
START DATE – END DATE: 2012 - ongoing		
LEVEL OF INTERVENTION: Change in community		
LEAD AGENCY: Healthy Carolinians of Macon County through Macon County Public Health		
Other agencies: Angel Medical Center; Department of Social Services		
EVALUATION MEASURES: This intervention is new.		
Process: Healthy Carolinians staff will provide grant opportunity information to the Franklin Community Care Clinic as those opportunities are received.		
Output/Impact: The Clinic will have opportunities for continued funding		

<p>Health/Safety Outcomes: Macon County residents will continue to be served by the clinic</p>
<p>INTERVENTION: Promote use of dental clinics – Adult Dental and Molar Roller SETTING: community and school START DATE – END DATE: April 2013 - ongoing LEVEL OF INTERVENTION: change in individual, family and community</p>
<p>LEAD AGENCY: Macon County Public Health Other agencies: Angel Medical Center, Highlands-Cashiers Hospital, Social Services, NC Access Care, Macon County Schools</p>
<p>EVALUATION MEASURES: This intervention is new. Process: Provide information to the community about the services offered by the dental clinics by use of paid media; packets of information delivered to parents/caregivers through the school system; information provided at community events; information on web page and through social media Output/Impact: People will use dental facilities Health/Safety Outcomes: A more affordable dental service</p>
<p>INTERVENTION: Training medical providers to provide fluoride varnishings to high-risk children under the age of 3 SETTING: medical offices START DATE – END DATE: LEVEL OF INTERVENTION: change in community, individual, family</p>
<p>LEAD AGENCY: NC Access Care Other agencies: Macon County Public Health, Social Services</p>
<p>EVALUATION MEASURES: This intervention is new. Process: Training given to medical providers to provide fluoride varnishings in their offices Output/Impact: increase the percentage of children aged 1 – 5 years enrolled in Medicaid who received any dental service during the previous 12 months Health/Safety Outcomes: Reducing the incidence of early childhood caries by training medical providers to provide fluoride varnishings to high-risk children under age three.</p>
<p>INTERVENTION: Secure a dialysis center for Macon County SETTING: community START DATE – END DATE: January 2012 - ongoing LEVEL OF INTERVENTION: change in community, individual, family</p>
<p>LEAD AGENCY: Macon County Other agencies: Department of Health and Human Services, physicians</p>
<p>EVALUATION MEASURES: This intervention is new. Process: Seek state approval of a seven station facility to provide dialysis services in Macon County Output/Impact: People will receive much needed dialysis service Health/Safety Outcomes: Macon County residents who need dialysis treatment will receive it locally</p>

CHAPTER 5 – PRIORITY # 3: CANCER PREVENTION AND SUPPORT

Incidence rates for common cancers do not appear to be extraordinary in Macon County. For breast, colon and lung cancer, incidence rates appear similar to peer counties. In rates for prostate cancer, Macon County has an incidence rate far lower than all peer counties.

Although death rates from all types of cancer are not significantly different in Macon County from peer counties, and they are lower than the rate of death statewide, there is an interesting trend that merits notice. While cancer deaths are trending down statewide, and in most peer counties, they are trending up in Macon County.

Taken together, cancers of all types composed the second leading cause of death in Macon County, WNC and NC in 2006-2010.

In Macon County, as throughout both WNC and the state of NC, there are four site-specific cancers that cause most cancer deaths: breast cancer, colon cancer, lung cancer, and prostate cancer. Macon County mortality rates for lung cancer and colon cancer are below mean WNC and NC rates, but the county mortality rate for breast cancer exceeds both the regional and state rate. The county mortality rate for prostate cancer is higher than the WNC mean, but lower than the state rate. In Macon County lung cancer is the site-specific cancer with the highest mortality, followed by breast cancer, prostate cancer, and colon cancer.

From the collected data it appears that in Macon County, prostate cancer is the site-specific cancer with the highest incidence, followed by breast cancer, lung cancer, and colon cancer. The Macon County incidence rate for colon cancer is above both the mean incidence rate for WNC and the incidence rate for NC, but the county incidence rates for breast cancer and lung cancer are below both the regional and state rates.

Lung cancer was the leading cause of cancer mortality in Macon County in 2006-2010. Data reveals that the lung cancer mortality rate in Macon County was below the comparable mean rate for WNC as well as the rate for NC. The lung cancer mortality rate in Macon County rose from 47.6 for 2002-2006

“Taken together, cancers of all types composed the second leading cause of death in Macon County, WNC and NC in 2006-2010.”

For incident rates for cancers of all types, please see http://www.maconnc.org/images/healthy-carolinians_2011MaconCountyCommunityHealthAssessmentReport.pdf



White ribbon-
lung cancer



light blue ribbon-
prostate cancer



Pink ribbon-breast cancer



Pink and blue ribbon-
Male breast cancer



Lavender ribbon-
all cancer

to 52.7 for 2006-2010, an increase of 10.7%. Statewide the lung cancer mortality rate fell from 59.8 for 2002-2006 to 55.9 for 2006-2010, a 6.5% decrease over the period. The comparable mean WNC lung cancer incidence rate fluctuated somewhat but was essentially the same at the end of the period (54.7) as at the beginning (54.2).

From the data it is clear that males experience higher lung cancer mortality than females, with the lung cancer mortality rate among men from 34%-81% higher than the rate among women over the five-year aggregate period 2002 – 2006 through 2006 - 2010. Lung cancer mortality among females in the county appeared to have increased steadily from the beginning to the end of the period cited.

It appears that lung cancer incidence in Macon County increased between 1999-2003 and 2005-2009, rising from 56.3 to 73.3 (30.2%). Region-wide, the mean lung cancer incidence rate has been creeping upward over the past several years, from a point well below the comparable state rate to a point barely below it. The mean lung cancer incidence rate in WNC increased 25.0% from the 1999-2003 aggregate period (60.3) to the 2005-2009 aggregate period (75.4), while the statewide lung cancer incidence rate increased by 9.5% (from 69.3 to 75.9) over the same time frame. Since lung cancer mortality is already on the rise in the region, the increase in the incidence rate may portend additional lung cancer mortality in the future.

Breast cancer was the second leading cause of cancer death in Macon County in 2006-2010. The breast cancer mortality rate in Macon County, which was below the WNC and NC rates for the first three aggregate periods, rose significantly after 2004-2008. Between 2004-2008 and 2006-2010, the Macon County breast cancer mortality rate increased 25%, from 22.7 to 28.4. At the state level, the breast cancer mortality rate fell throughout the period cited, from a high of 25.5 deaths per 100,000 women in 2002-2006 to a low of 23.2 in 2006-2010, a decrease of 9.0%. In WNC, the mean breast cancer mortality rate was more volatile, actually increasing 6.7% from 23.8 in 2002-2006 to 25.4 in 2004-2008. Since then, the regional rate has reversed to a current breast cancer death rate of 24.0. The WNC breast cancer mortality rate has exceeded the comparable state rate for the past three aggregate periods.

In Macon County, the breast cancer incidence rate rose from 115.8 new cases per 100,000 women in the 1999-2003 aggregate period to 147.3 in the 2005-2009 aggregate period, an increase of 27.2%. In WNC, the mean breast cancer incidence rate rose from 121.3 new cases per 100,000 women in the 1999-2003 aggregate period to 154.0 in the 2005-2009 aggregate period, an increase of 27.0%. At the state level, breast cancer incidence rate rose from 147.3 to 154.5 over the same period, an increase of approximately 5%.

Prostate cancer was the third leading cause of cancer death in Macon County in 2006-2010. Over the five-year aggregate periods, 2002 – 2006 through 2006 – 2010, the prostate cancer mortality rate in Macon County peaked at 30.8 in 2004-2008, but the

rate in 2006-2010 (23.7) was about the same as the rate in 2002-2006 (24.7). The county prostate cancer rate exceeded the mean regional rate throughout the period cited. Statewide, prostate cancer mortality demonstrates a slight downward trend, with the 2006-2010 rate (25.5) approximately 12% lower than the comparable rate in 2002-2006 (29.1). In WNC, there has been fluctuation but little net decrease in the mean prostate cancer mortality rate over the period cited in the graph (23.0 the first aggregate period; 22.9 the last aggregate period).

Cancer of the colon, rectum and anus (collectively "colorectal" cancer) caused the fourth largest mortality rate among the major site-specific cancers in Macon County in 2006-2010. The colorectal cancer mortality rate in Macon County fluctuated around the mean WNC rate and the NC rate throughout the five-year aggregate periods, 2002 – 2006 through 2006 – 2010. The county colorectal cancer mortality rate fell overall, from 17.7 in the 2002-2006 aggregate period to 12.6 in the 2006-2010 aggregate period, a decrease of 28.8%. As seen for a number of other cancers, the state colorectal cancer mortality rate has fallen steadily in recent years, from a high of 18.2 in the 2002-2006 period to a low of 16.0 in the 2006-2010 period, a rate decrease of 12.1%. In WNC, the mean colorectal cancer mortality rate fluctuated considerably, possibly due to a high proportion of unstable county rates, but was the same at the end of the period cited as at the beginning (16.6). In the most recent two aggregate periods, the mean regional colorectal cancer incidence rate surpassed the state rate, after being below the state rate for the prior three aggregate periods.

In Macon County there were too few colorectal cancer deaths (n=15-18 deaths per gender per five-year aggregate period) in the last two aggregate periods to yield a complete set of stable gender-based mortality rates, so the NC SCHS did not release two of them. The limited data available does not appear to demonstrate a clear gender difference in colorectal cancer mortality in the county.

Spotlight on Success

Ladies Night Out

Ladies Night Out is a partnership between Macon County Public Health and Angel Medical Center. Ladies Night Out provides monthly programs on a variety of health topics for women with an emphasis on the importance of regular health screenings.

In addition, funding has been raised to assist uninsured/underinsured women and men in getting much needed mammograms and other breast health screenings.

The health education program reaches between 100 and 200 ladies per month.

Since its inception in 2008, Ladies Night Out has provided over 800 mammograms to those who would not have otherwise received them.



The men of Macon County wanted a night of their own so Angel Medical Center and Macon County Public Health are partnering to provide bi-monthly programs on a variety of health topics to men with an emphasis on the importance of health screenings. Funding is raised to assist uninsured/underinsured men get much needed health screenings.

Spotlight on Success

Macon County Commissioners adopted a county ordinance regarding tobacco use at Macon County Recreational Facilities. Effective July 9, 2012, all forms of tobacco use were prohibited at the buildings and grounds of county owned recreational facilities. Signage was erected at the recreational facilities in July 2012.

96.7 News Coverage: The Health Center says they will stay committed to the mission of reducing teen tobacco use by teaming up with groups such as TRU and also by coordinating other programs to warn local youth of the dangers of tobacco use.



The County Commissioners received support from:

- Macon County's TRU Youth Groups
 - Macon County Board of Health
 - Macon County Recreation Board
- Town of Highlands Board of Commissioners
- A public opinion poll conducted by the Franklin Press
 - Macon County Girl Scout Troop
 - Youth in Macon County



Partners

Cancer Prevention and Support is an area of concern to many in Macon County. Many partners are engaged in efforts to reduce the incidence and mortality rates of breast, colon, and lung cancer through prevention and early intervention efforts.

KEY PARTNERS

- Macon County Public Library
- Chamber of Commerce
- Angel Medical Center (also has a Cancer Clinic in Outpatient Medicine)
- Highlands-Cashiers Hospital
- Macon County Public Health
- Physicians
- Churches
- Government officials/leaders
- Macon County Schools
- City and County Planning offices
- Community Centers
- Community Transformation Grant Project
- Economic Development
- Social/Senior Services
- Environmental Health
- Fatz Café
- Bi-Lo
- Dodge Packaging
- NC Breast and Cervical Cancer Control Program
- Macon County Resource Center
- The Pink Ribbon: Mastectomy Bras and Supplies
- Command Mobility
- Macon County Cancer Support Group
- Reach To Recovery
- CareNet
- Second Mile Ministries
- Macon Transit
- American Cancer Society

ADDITIONAL RESOURCES

- Center for Disease Control
- NC Division of Public Health
- The Community Guide
- www.cancer.org
- <http://bcccp.ncdhhs.gov>
- <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>
- <http://www.tobaccopreventionandcontrol.ncdhhs.gov/data/disparities.htm>
- <http://tobaccosmoke.exposurescience.org/KOS07> (Real-time measurement of Outdoor Tobacco Smoke Particles)
- <http://www.surgeongeneral.gov/library/reports/smokeexposure>
- <http://www.tobaccofreekids.org/research/factsheets/pdf/0363.pdf>
- <http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/guide/index.html>

GOAL: Reduce the incidence and mortality rates of breast, colon and lung cancer through prevention and early intervention efforts.

VISION OF IMPACT: To be a resource/referral for citizens of Macon County who are effected by cancer

RISK FACTORS: lack of insurance; lack of transportation; poverty; lack of information; lack of policies and environments that support detection and early prevention

SHORT-TERM OBJECTIVES:

- distribute information about breast cancer through literature distributed at doctor's offices; utilizing Facebook and web pages; focus on self-breast exams and being diagnosed early as opposed to not being diagnosed
- prepare Preventive Packets which would show lung cancer is directly related to smoking and that smoking increases the risk of breast cancer; include survivor testimony;
- news polls asking people why they do not get preventive cancer services;
- updating community resources list, this will be included in packet for doctor's offices and on the websites;
- possibly working with American Cancer Society on Community Health Advisor Program
- Encourage student working on Senior Project undertake youth tobacco use as a topic
- Ask school teachers to lead TRU groups
- Community Resources referral page
- Acquire intern to research incidence rates and review death certificates for cancer cause

RECOMMENDATIONS/EVIDENCE BASED STRATEGIES:

- Promote cancer screenings for uninsured and underinsured
- Promote tobacco free outdoor areas
- Advocate for TRU groups to remain in school system
- Promote participation in Cancer Prevention Study-3
- Provide Health Education Programs through structured meetings

<u>Long-term Outcome Objectives</u>	Baseline/Indicator Source
1. By December 2015, reduce colorectal cancer mortality rate (per 100,000 population) from 12.0 to no more than 10.1	Macon County Community Health Assessment 2011
Related Healthy NC 2020 Objective: Reduce the colorectal cancer mortality rate (per 100,000 population) [2020 Target: 10.1]	SCHS (Central Cancer Registry), CDC Wonder
2. By December 2015, reduce breast cancer mortality rate (per 100,000 population) from 29.3 to 28.8	WNC Healthy Impact Survey
3. By December 2015, decrease the percentage of high school students who smoked cigarettes on one or more days during the past 30 days from 26.5% to 26%	Macon County Community Youth Risk Behavior Survey 2011
Related Healthy NC 2020 Objective: Decrease the percentage of high school students reporting current use of any tobacco product from 25.8 % (2009 data) (2011 – 22.5%) [2020 Target 15.0%]	Youth Tobacco Survey; Tobacco Prevention and Control Branch;

INTERVENTIONS: SETTING & TIMEFRAME	COMMUNITY PARTNERS ROLES AND RESPONSIBILITIES	PLAN HOW YOU WILL EVALUATE EFFECTIVENESS
INTERVENTIONS SPECIFICALLY TARGETING HEALTH DISPARITIES; INDIVIDUAL CHANGE INTERVENTIONS; OR POLICY OR ENVIRONMENTAL CHANGE INTERVENTIONS		
INTERVENTION: Provide fecal occult blood test (FOBT) kits to community at no charge		
SETTING: hospital and community		
START DATE – END DATE: March 2013 - ongoing		
LEVEL OF INTERVENTION: Change in individual		
LEAD AGENCY: Angel Medical Center		
Other agencies: Macon County Public Health, Cancer Prevention and Support Task Force		
EVALUATION MEASURES: This intervention is new.		
Process: Provide free FOBT kits to public		
Output/Impact: 194 tests were picked up; 130 kits were returned; 25 positive results that resulted in referrals for colonoscopy		
Health/Safety Outcomes: The FOBT is used to find occult blood in feces that will help determine if a colonoscopy is needed to further check for colon cancer. Evidence base: US Prevention Task Force Guide to Clinical Prevention Services		

INTERVENTION: Provide free health education programs to women and men with an emphasis on early detection and screenings; provide mammograms at no cost to uninsured/underinsured residents of Macon County

SETTING: community

START DATE – END DATE: 2008 -ongoing

LEVEL OF INTERVENTION: Change in disparity populations

LEAD AGENCY: Macon County Public Health and Angel Medical Center

Other agencies: NCBCCCP; Bi-Lo; Fatz Café; Dodge Packaging; Cancer Prevention and Support Task Force;

EVALUATION MEASURES: This intervention is ongoing but not before reported.

Process: Provide health education to residents of Macon County through set meetings with guest speakers who are experts on the topic being discussed; refer to BCCCP program as needed (i.e. Ladies Night Out and Men’s Night Out)

Output/Impact: Over 800 mammograms have been provided at little or no cost to those who would otherwise not have received them.

Health/Safety Outcomes: Most doctors feel that early detection tests for breast cancer save many thousands of lives each year, and that many more lives could be saved if even more women and their health care providers took advantage of these tests. Following the American Cancer Society’s guidelines for the early detection of breast cancer improves the chances that breast cancer can be diagnosed at an early stage and treated successfully. The North Carolina Breast and Cervical Cancer Control Program (BCCCP) provides free or low-cost breast and cervical cancer screenings and follow-up to eligible women in North Carolina. Each year, NC BCCCP strives to provide services to over 12,000 women. www.cancer.org. <http://bcccp.ncdhhs.gov>

INTERVENTION: Advocate for Tobacco Free Parks

SETTING: community

START DATE – END DATE: 2012 – ongoing

LEVEL OF INTERVENTION: Change in policy

LEAD AGENCY: Macon County Public Health

OTHER AGENCIES: Macon County TRU clubs; Macon County Commissioners; Highlands Town Board; Parks and Recreation Departments; youth; Board of Health; Community Transformation Grant Project; Tobacco Control Branch

EVALUATION MEASURES: This intervention is new.

Process: Work with youth and recreation boards to determine support for tobacco free parks; youth presentation to Board of Health and County Commissioners, Town of Highlands advocating for tobacco free parks

Output/Impact: Macon County Tobacco Free Parks Ordinance

Health/Safety Outcomes: Research indicates that while someone is smoking, outdoor levels of second hand smoke may be as high as indoor levels and may pose a threat to someone close to the smoker. The Surgeon General has unequivocally stated that there is no safe exposure to second hand smoke. <http://www.surgeongeneral.gov/library/reports/smokeexposure>

<p>INTERVENTION: Advocate for continued funding for TRU Coordinator in schools</p> <p>SETTING: schools</p> <p>START DATE – END DATE: 2012 – ongoing</p> <p>LEVEL OF INTERVENTION: Change in policy; youth</p>
<p>LEAD AGENCY: Macon County Public Health</p> <p>OTHER AGENCIES: Schools, Hi-Top Assist, Hospitals</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: Discuss with schools possibility of having staff person trained to lead TRU groups and desirability of having TRU Coordinator in schools; advocate for state funding for TRU Coordinator; if necessary, train Staff as TRU leader</p> <p>Output/Impact: reduction in youth tobacco use</p> <p>Health/Safety Outcomes: Comprehensive, sustained multi-component programs can cut youth tobacco use in half in 6 years. Prevention is critical. Successful multi-component programs prevent young people from starting to use tobacco in the first place and more than pay for themselves in lives and health care dollars saved. Strategies that comprise successful comprehensive tobacco control programs include mass media campaigns, higher tobacco prices, smoke-free laws and policies, evidence-based school programs, and sustained community-wide efforts. Comprehensive tobacco control programs are most effective when funding for them is sustained at levels recommended by the Centers for Disease Control and Prevention.</p> <p>http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use.</p>
<p>INTERVENTION: Promote participation in Cancer Prevention Study-3</p> <p>SETTING: hospital; community</p> <p>START DATE – END DATE: September 2013 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in community, family</p>
<p>LEAD AGENCY: American Cancer Society in partnership with Angel Medical Center</p> <p>OTHER AGENCIES: Macon County Public Health; community</p>
<p>EVALUATION MEASURES: This intervention is new.</p> <p>Process: Enroll in study by reading and signed an informed consent form, complete a brief written survey, provide a waist circumference measurement and a small blood sample (7 teaspoons total) taken by a certified, trained phlebotomist. Later take more surveys at home answering questions about lifestyle, behavioral and other factors related to health.</p> <p>Output/Impact: Commit to long-term cancer study over a period of 20 – 30 years</p> <p>Health/Safety Outcomes: To better understand the factors (lifestyle, environmental, genetic) that cause or prevent cancer and, ultimately, to help eliminate cancer as a major health concern for future generations.</p>
<p>INTERVENTION: Worksite campaign through businesses to explain insurance codes for billing</p> <p>SETTING: businesses</p> <p>START DATE – END DATE: 2013 - ongoing</p> <p>LEVEL OF INTERVENTION: Change in business, family, individual</p>
<p>LEAD AGENCY: Cancer Prevention and Support Task Force through Macon County Public Health</p> <p>OTHER AGENCIES: insurance agencies, Hospitals, businesses</p>

EVALUATION MEASURES: This intervention is new.

Process: meet with insurance agencies to train on codes to be entered for procedures to ensure payment by insurance not for patient payment; share this information with doctors

Output/Impact: More people receiving necessary treatment; not putting off treatment due to cost that should be covered by insurance.

Health/Safety Outcomes: Health screenings can be invaluable in detecting potentially life threatening illnesses before they become a problem. By knowing which procedures are covered by insurance, more people are likely to have these screenings. Doctor's office, when trained properly, can code the insurance claims correctly which saves money and time for the patient, doctor's office and insurance company.

INTERVENTION: Increase tobacco-free environments for government grounds, including parks and recreational areas

SETTING: community

START DATE – END DATE: June 1, 2013 – May 31, 2014

LEVEL OF INTERVENTION: Change in policy

LEAD AGENCY: Community Transformation Grant Project

OTHER AGENCIES: Macon County Public Health, Hospitals, Macon County Government and Municipalities, media, youth, Hi-Top Assist, Tobacco Prevention and Control Branch, community

EVALUATION MEASURES: This intervention is new.

Process: Raise awareness about tobacco-free issues through use of media, consistent messaging; create educational tools based on the Tobacco Prevention and Control Branch smoke free implementation tool kit and inventory; continue to engage partners; explore options for county process; build community support; implement policy; provide smoking receptacles and signage; promote policy change throughout the community

Output/Impact: development of media plan and educational tools; completion of interviews and analysis of interview results; identification of county process; documented community interest in task; successful policy implementation; placement of receptacles and signage; community awareness

Health/Safety Outcomes: Tobacco free policies in cities

INTERVENTION: Increase the number of identified community health resources for tobacco cessation

SETTING: community

START DATE – END DATE: June 1, 2013 – May 31, 2014

LEVEL OF INTERVENTION: Change in community

LEAD AGENCY: Community Transformation Grant Project

OTHER AGENCIES: Macon County Public Health, Hospitals, MAHEC, Hi-Top Assist

EVALUATION MEASURES: This intervention is new.

Process: contract with individual to create inventory of available health resources in clinical preventive resources

Output/Impact: development of metrics and process; completion of assessment

Health/Safety Outcomes: Increase the number of community organizations offering supports for individuals identified with tobacco use

CHAPTER 6 – NEXT STEPS

We will continue to work with a wide range of community partners to modify this Community Health Improvement Plan (CHIP) in the months and years ahead in Macon County. This CHIP will be used by partner organizations to complete agency specific reporting of roles and responsibilities (e.g., our health department and local hospitals), as well as informing agency strategic plans across the county where appropriate.

This CHIP will be widely disseminated electronically to partner organizations and used as a community roadmap to monitor and evaluate our collective efforts.

Dissemination of this CHIP will also include making it publicly available on the Macon County Public Health website (<http://www.maconnc.org/healthy-carolinians.html>) the WNC Healthy Impact website (www.WNCHealthyImpact.com) and local libraries.

Moving forward, the CHIP report will be updated to provide the framework for the annual State of the County's Health Report, which will be submitted and made publicly available in December 2013.

REFERENCES

NACCHO's CHA/CHIP Resource Center

<http://www.naccho.org/topics/infrastructure/CHAIP/index.cfm>

Wisconsin Association of Local Health Departments and Boards

<http://www.walhdab.org/NewCHIPResources.htm>

NC Division of Public Health Community Health Assessment Resource Site

<http://publichealth.nc.gov/lhd/cha/resources.htm>

Template Implementation Plan v 1.0; 6/2012. Wisconsin CHIPP Infrastructure Improvement Project *Revised 7/2012 for NACCHO CHA/CHIP Project

NC DPH Community Health Assessment Guide Book

<http://publichealth.nc.gov/lhd/cha/docs/guidebook/CHA-GuideBookUpdatedDecember15-2011.pdf>

Connecticut DPH Guide and Template for Comprehensive Health Improvement Planning

http://www.ct.gov/dph/lib/dph/state_health_planning/planning_guide_v2-1_2009.pdf

Bexar County CHIP <http://www.bcchip.org/#!/home/mainPage>

Sedgwick County CHIP

http://www.sedgwickcounty.org/healthdept/communityhealthpriorities_2010.pdf

Kane County CHIP Executive Summary <http://kanehealth.com/chip.htm>

Kane County full CHIP <http://kanehealth.com/chip.htm>

Center for Disease Control <http://www.cdc.gov/>

Eat Smart, Move More, NC <http://www.eatsmartmovemorenc.com/>

Recommended Community Strategies And Measurements To Prevent Obesity In The United States: Implementation and Measurement Guide, July 2009, CDC

http://www.cdc.gov/obesity/downloads/community_strategies_guide.pdf

Macon County 2011 Youth Risk Behavior Survey

<http://www.maconnc.org/images/healthy-carolinians/MaconCountyYRBS2011Final.pdf>

Youth Risk Behavior Surveillance System (YRBSS)

<http://www.cdc.gov/healthyyouth/yrbs/index.htm>

Institute of Medicine of the National Academies: Early Childhood Obesity Prevention Policies; Goals, Recommendations, and Potential Actions <http://www.nciom.org/wp-content/uploads/2011/09/IOM-Young-Child-Obesity-2011-Recommendations.pdf>

Teammates and Social Influence Affect Weight Loss Outcomes in a Team-Based Weight Loss Competition <http://www.shapeup.com/PDFs/Study-Social-Influence-Affects-Weight.pdf>

The Guide to Community Preventive Services What Works to Promote Health: Obesity Prevention and Control: Worksite Programs
<http://www.thecommunityguide.org/obesity/workprograms.html>.

The Guide to Community Preventive Services What Works to Promote Health: Assessment of Health Risks with Feedback to Change Employees' Health
<http://www.thecommunityguide.org/worksite/ahrf.html>.

National Prevention Strategy: Active Living
www.surgeongeneral.gov/initiatives/prevention/strategy/active-living.pdf

An Analysis of Oral Health Disparities and Access to Services in the Appalachian Region: PDA, Inc., Cecil. G. Sheps Center/UNC-Chapel Hill, University of Mississippi Medical Center, and Mississippi State University ARC Contract Nos.: CO-16034-2008 and CO-16835-2010
http://www.arc.gov/assets/research_reports/AnalysisofOralHealthDisparitiesandAccessToServicesinRegion.pdf

County Health Rankings and Roadmaps: Expand Rural Training Tracks and Programs In Medical Education
<http://www.countyhealthrankings.org/policies/expand-rural-training-tracks-and-programs-medical-education>

American Cancer Society www.cancer.org

North Carolina Breast & Cervical Cancer Control Program <http://bcccp.ncdhhs.gov>

Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>

NC Division of Public Health, Chronic Disease and Injury Section, Tobacco Prevention and Control Branch
<http://www.tobaccopreventionandcontrol.ncdhhs.gov/data/disparities.htm>

Real-time measurement of Outdoor Tobacco Smoke Particles

<http://tobaccosmoke.exposurescience.org/KOS07>

U.S. Department of Health and Human Services: Children and Secondhand Smoke Exposure-Excerpts from The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, 2007

<http://www.surgeongeneral.gov/library/reports/smokeexposure>

Campaign for Tobacco-Free Kids

<http://www.tobaccofreekids.org/research/factsheets/pdf/0363.pdf>

Agency for Healthcare Research and Quality: Guide to Clinical Preventive Services

<http://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/guide/index.html>

The evidence for medical nutrition therapy for type 1 and type 2 diabetes in adults. J Am Diet Assoc. 2010 Dec;110(12):1852-89. doi: 10.1016/j.jada.2010.09.014. Franz MJ, Powers MA, Leontos C, Holzmeister LA, Kulkarni K, Monk A, Wedel N, Gradwell E. Source: Nutrition Concepts by Franz, Inc, Minneapolis, MN 55439, USA. MarionFranz@aol.com

Academy of Nutrition and Dietetics: Evidence Analysis Library

<http://andevidencelibrary.com/category.cfm?cid=14&cat=0>

Mountain Area Health Education Center. <http://www.mahec.net/>

GLOSSARY OF TERMS

Vision of Impact	Describe the impact that the work of the CHIP will have in the identified health priorities in your county at the end of three years. In other words, what does success look like in 2016?
Community Objective	Description of what the collaborative action team wants to accomplish by addressing the specific health priority.
Strategy	Also known as interventions or approaches which will address priority health issues.
Goal	The impact of the work you anticipate for a specific strategy
Strategy Objectives	Description of what is to be achieved or the specific change expected to occur within a specific time frame. Objectives should be SMART (Specific, Measurable, Achievable, Realistic, & Time Specific). Can have more than one objective for each strategy and related goal.
Indicators	Measurements used to determine whether the objectives were met. They answer the question: how will I know if the objective was accomplished?
Activities	Key components of the strategy needed to achieve the objective for the strategy.
Resources Needed	Description of what your community will need (staff time, materials, resources, etc.) to implement the specific activity.
Results	Also ‘impacts, outputs, and outcomes’. It’s what happens as a result of the completion of specific activities.
Result Verification	How you will know that results have been achieved for specific activities.
Target Date	The date results will be verified.
Lead	An organization in this role commits to seeing that the issue is addressed. It would take responsibility for developing the resources needed to advance the issue such as a detailed plan. It would focus on the day-to-day and long-range tasks of moving the goal forward. Organizations in a lead role would ask others to assist with specific tasks.
Collaborating	An organization in this role commits to significant help in advancing the issue. For example, it might assist with planning, assembling data, or developing policy options. It would participate regularly in developing strategy to advance the goal.
Supporting	An organization in this role commits to help with specific circumscribed tasks when asked. These tasks might include attending meetings or writing letters of support to move the goal forward.